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Operationalizing Lewin's 3-Step Change Model in the Outpatient Setting: A COVID-19 Case
Study

BY

Daniel T. Coulter

A doctoral project submitted to the faculty of the Medical University of South Carolina
in partial fulfillment of the requirements for the degree
Doctor of Health Administration
in the College of Health Professions

OPERATIONALIZING LEWIN'S 3-STEP CHANGE MODEL IN THE OUTPATIENT
SETTING: A COVID-19 CASE STUDY

by

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Abstract

The COVID-19 pandemic has disrupted the healthcare industry and forced organizations to fundamentally change their operations to ensure the highest level of safety for both patients and staff alike. The purpose of this study is to analyze the rapid response change process to COVID-19 in an outpatient setting and provide current and future healthcare leaders and organizations elements for consideration in redesigning healthcare delivery during a pandemic. Through a series of semi-structured interviews with Independent American Health Clinic employees, coupled with a thematic analysis, three main themes emerged the organization's response: environment of care, healthcare operations, and organizational infrastructure. These themes were placed into a framework consisting of Lewin's 3-Step Change model (unfreezing, moving, and refreezing) to retrospectively analyze an organization's change efforts in response to COVID-19. The analysis highlighted a nine month period that started just prior to the pandemic declaration and aligned with the early trend of increasing cases and transmission levels. The analysis also outlined distinct challenges presented to the change efforts set by the existing culture of the organization. Additional information provided by participants during the interview process offered supplementary areas for discussion to include pandemic planning and training, the importance of staff resiliency, and the need to continuously monitor and improve business operations. The results showed that while there are many similarities to the conditions for which healthcare organizations needed to respond, the change efforts are unique to each organization.

Keywords: COVID-19, change management, Lewin, outpatient, redesign

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Throughout this journey I have not only learned a lot academically in the classroom setting but about myself as a husband, father, leader, follower, student, and teacher. Without the support of a team of teams this endeavor would not have been possible. First, I would like to thank and acknowledge the MUSC College of Health Profession's leadership and staff for fostering an environment conducive to open dialogue, candid feedback, and collegiality. This setting truly enabled communication and collaboration amongst the cohort. I would also like to acknowledge the fellow members of my cohort. The relationships that we established over the past three years have been invaluable to me both personally and professionally. Your diversity of thoughts, insights, and ideas have provided me with a different way of looking at and approaching concepts and perceptions.

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Chapter 1

Study Objective. To analyze the rapid response change process to COVID-19 in an outpatient setting and provide current and future healthcare leaders and healthcare organizations elements for consideration in redesigning healthcare delivery during a pandemic. This study will contribute new knowledge from the first-hand application of lessons learned from COVID-19.

Research Question (s). What was the rapid response change process in an outpatient setting during the COVID-19 pandemic? How did this process impact the organizational structure, clinical processes, and culture in the setting? What can healthcare leaders and organizations learn about rapid change from the COVID-19 response in this type of organization?

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) or coronavirus disease 2019 (COVID-19) has profoundly impacted healthcare systems worldwide. As of February 7, 2021, there are over 105.3M reported cases worldwide, including approximately 26.5M in the United States (World Health Organization, 2020a). The first detected case of COVID-19 in the United States was in late January 2020 and by the first week in February almost three hundred individuals were being tracked with 11 of those testing positive for COVID-19 (Patel & Jernigan, 2020). During the following weeks leading into early March, the number of positive cases increased at an alarming rate (Schuchat & CDC COVID-19 Response Team, 2020). However, these numbers are not reflective of the actual impact, as they fail to account for the strain that they have placed on the healthcare industry. On March 11, 2020, the World Health Organization declared COVID-19 a pandemic and called for action to prevent the spread of the infection through holistic, comprehensive planning (World Health Organization, 2020b).

Early federal government responses helped shape the conditions and directions that state and local response efforts would follow. The President enacted executive orders, and Congress enacted multiple rules and regulations that authorized them and in response to public health emergencies (Price & Myers, 2020). Although state responses vary due to the governors of specific authorities and powers granted to them through their respective statutes, the declaration of a public health emergency provides them and their health departments' flexibility in response (Rutkow, 2014). These could include policies regarding the use of administration of services and resources and the ability to implement restrictions or mandates to protect its citizens such as lockdowns and wear of masks. Collectively these responses would both, directly and indirectly, impact the current and future healthcare landscape. The Centers for Disease Control (CDC) had been involved in the United States' initial response to the declaration of COVID-19 as a public health emergency starting in January 2020. Building on previous influenza and pandemic plans, they identified several vital interventions and mitigation actions for implementation to reduce the spread and transmission of infection (Jernigan & CDC COVID-19 Response Team, 2020; Patel & Jernigan, 2020). These interventions include personal actions such as increased personal infection control through handwashing and staying home when feeling sick and community-wide actions including social distancing and facility closures.

Additionally, the plans called for the CDC to work closely with state and local governments to help establish critical public health infrastructure to assist with surveillance and establish further control measures such as enhanced isolation and quarantine procedures and contact tracing (Holloway et al., 2014). In April 2020, the Center for Medicare and Medicaid Services (CMS) released recommendations on curtailing healthcare services in response to COVID-19 to limit the virus's spread, protect staff and patients, and cross-level and preserve

critical personnel and supplies (Centers for Medicare and Medicaid Services, 2020a). Their framework provided a tiered approach to limiting services to include elective surgeries, surgical and dental procedures, and non-essential medical services such as routine primary care and preventive wellness screenings in the outpatient or ambulatory care setting (Figure 1).

Figure 1. CMS Tiered Approach Recommendations to Reducing Medical Services

Tiers	Definition	Locations	Examples	Action
Tier 1	Low acuity treatment or service	<ul style="list-style-type: none"> Medical office FQHC/RHC* HOPD** Ambulatory care sites 	<ul style="list-style-type: none"> Routine primary or specialty care Preventive care visit/screening Annual Wellness or Welcome to Medicare Initial Preventive Visit Supervised exercise therapy Acupuncture 	<p>Consider postponing service</p> <p>Consider follow-up using telehealth, virtual check-in, or remote monitoring</p>
Tier 2	Intermediate acuity treatment or service Not providing the service has the potential for increasing morbidity or mortality	<ul style="list-style-type: none"> Medical office FQHC/RHC HOPD Ambulatory care sites 	<ul style="list-style-type: none"> Pediatric vaccinations Newborn/early childhood care*** Follow-up visit for management of existing medical or mental/behavioral health condition Evaluation of new symptoms in an established patient Evaluation of non-urgent symptoms consistent with COVID-19 	<p>Consider initial evaluation via telehealth; triage to appropriate sites of care as necessary</p> <p>If no current symptoms of concern, consider follow-up with virtual check-in</p>
Tier 3	High acuity treatment or service Lack of in-person treatment or service would result in patient harm	<ul style="list-style-type: none"> Medical office FQHC/RHC HOPD Ambulatory care sites Emergency department 	<ul style="list-style-type: none"> Evaluation of new symptoms in a new patient Evaluation of symptoms consistent with COVID-19, with warning signs including shortness of breath, altered mental status, or other indications of severe disease 	<p>We would not recommend postponing in-person evaluation; consider triage to appropriate facility/level of care as necessary</p>

Source: Centers for Medicare and Medicaid Services (2020). <https://www.cms.gov/files/document/cms-non-emergent-elective-medical-recommendations.pdf>

With each state being accountable for managing its pandemic response, CMS offered that the decision to restrict services lies with the states and their respective health departments and the individual providers responsible for offering the services. Both the CDC and CMS continuously provided updates to their respective recommendations following the initial

implementation of mitigation strategies and restriction of services established at the onset of the pandemic. Additionally, they provided factors to be taken into account by healthcare facilities for re-opening to provide non-emergent, non-COVID-19 care delivery (Centers for Medicare and Medicaid Services, 2020b; Centers for Disease Control and Prevention, 2020). These recommendations came as transmission rates across the country began to stabilize, and the need for healthcare increased due to unmet demand.

The COVID-19 pandemic has placed increased struggles and burden on an overtaxed US healthcare system and may have inadvertently influenced broad system changes and improvements (Iyengar, Mabrouk, Jain, Venkatesan, & Vaishya, 2020; Metzl, Maybank, & DeMaio, 2020; Sinsky & Linzer, 2020). Much of the early focus and discussion regarding strains on healthcare delivery and resources during the pandemic have focused on the emergency department, critical care capability, and bed capacity in hospitals, which require significant staffing, equipment, and infrastructure (Adalja, Toner, & Inglesby, 2020; Phua et al. 2020; Uppal et al., 2020). However, the depth and breadth of services delivered in the ambulatory setting impacted by COVID-19 in combination with the modifications to care delivery, has shifted the strategic focus of many healthcare organizations look at balancing the short-term needs against their long-term strategic vision (Land, 2020; Luxon, 2020)

Based on the culmination of regulations, responses, and recommendations at every level, COVID-19 has had a profound impact on outpatient or ambulatory care delivery. There was almost a 60% decrease in outpatient visits between the outset of the pandemic and late March (Mehrotra, Chernew, Linetsky, Hatch, & Cutler, 2020). Furthermore, approximately 40-50% of people have reported delaying or postponing seeking medical treatment during the pandemic, potentially worsening existing medical conditions or increasing non-COVID-related deaths

(Czeisler et al., 2020; Findling, Blendon, & Benson., 2020; Jacobsen & Jokela, 2020). Primary care, serving as the entry point to the healthcare system, is uniquely positioned to alleviate the burden on overwhelmed and resource-constrained hospitals. Through the provision of routine and acute care in the outpatient setting, the primary care provider's ability to triage, diagnose, and identify potentially infected patients play a vital role in response to the pandemic. Due to the nature of the in-person evaluation and treatment in the outpatient setting, care for many of the symptoms associated with COVID-19 can resemble strep throat, the common cold, flu, asthma, and seasonal allergies; primary care providers are more susceptible to iatrogenic illness and the prospect of contracting COVID (Gamio, 2020). Healthcare organizations had to account for these factors. They had to redesign care delivery and develop improved workflow solutions to meet the needs of their patient population and take steps to ensure staff and patient safety (Hollander & Sites, 2020; Krist, DeVoe, Cheng, Ehrlich, & Jones, 2020; Nguyen, Hertelendy, Ashton, & Burkle, 2020). Paramount to these change efforts was the expanded use of telemedicine and virtual health modalities to increase access to care and reduce the risk of exposure to both staff and patients. Telemedicine has shown to have had a significant impact in off-setting the loss of outpatient visits; however, this varied based on location and the ability for practices to adopt virtual care modalities (Patel, Mehrotra, Huskamp, Uscher-Pines, Ganguli, & Barnett, 2020; Mehrotra, Ray, Brockmeyer, Barnett, & Bender, 2020). These efforts were aided through policy changes, loosened restrictions, and modifications to insurance coverages (Hollander & Carr, 2020; Webster, 2020; Wosik et al., 2020).

Gabel (2012) offers that successful change in a healthcare setting requires a deliberate long-term time commitment with buy-in from stakeholders and that inclusive engagement throughout the organization is necessary; however, healthcare organizations drastically

transformed operations to meet the demands of COVID-19 (Berwick, 2020). Due to the rapid disease transmission rate and the urgency to safeguard patients and staff, healthcare organizations hastily conducted change efforts instead of the more deliberate planning process. Organizations faced unique challenges in responding quickly to modify care to maintain or re-establish their patients' needs while balancing the safety of both patients and staff. The impact of this rapid change phenomenon for the healthcare industry must be captured, analyzed, and taught to current and future healthcare leaders for application within their organizations. There is significant uncertainty as to when and how a return to normalcy will occur with healthcare in the face of continued surveillance and the implementation of risk mitigation procedures (Fontanarosa & Bauchner, 2020).

The application of a change management theory can provide healthcare organizations with a framework to assess steps taken in response to the pandemic and establish an approach moving forward. One of the more well-known approaches to managing change in an organization is Kurt Lewin's 3-Step Change Model. The framework developed in the 1940s is utilized to assess, develop, and implement planned change efforts, building upon Lewin's three additional works: *field theory*, *group dynamics*, and *action research* to show how organizations can change (Antwi & Kale, 2014). Lewin's model analyzes change as a process in three distinct stages: unfreezing, moving, and refreezing (Burns, 2004). The unfreezing stage requires disrupting the regular operation, inducing survival anxiety, and creating a psychologically safe environment for adopting new behaviors or practices (Burns, 2004). The moving stage requires the identification of necessary changes and "take into account all the forces at work and identify and evaluate, on a trial and error basis, all available options" (Burns, 2004). The final stage of the model, refreezing, establishes the changed behaviors and practices as the new normal.

Utilizing this framework, we can describe and interpret the scenario and context of the facility's services and changes during each stage.

By utilizing a qualitative, analytical, healthcare management case study, we can set the scenario and context of an actual change process used in an outpatient setting. This product can inform and develop not only healthcare leaders but learning health systems as well. Learning health systems are those that use and apply both data and experience, assess outcomes, and refine processes to improve healthcare delivery and quality of care to its patients (Meyers, 2019). This case study will outline the current structure and culture of a healthcare organization impacted by COVID-19, the clinical environment and events leading up to the COVID-19 pandemic, and its initial steps/response.

Organization Background

Located in north-central Kentucky, Independent American Health Clinic (IAHC) provides outpatient Primary Care services supported by Pharmacy, Radiology, and Laboratory Services. IAHC also provides a variety of Behavioral Health services to include child and adolescent and family advocacy and substance abuse. The Rehabilitative services include Physical and Occupational Therapy as well as Chiropractic services. The limited specialty services offered are Optometry and Allergy services.

In 2011, Independent American Community Hospital at the time had an authorized staff of 1250. Through a series of decisions made at the system level, Independent American Community Hospital was to transition to a newly constructed ambulatory health clinic in 2020. This transition would mean the closure of inpatient and surgical services and a majority of its specialty care clinics. In a phased approach over the subsequent years, Independent American

Health Clinic would reduce its services and staff through deliberate downsizing efforts from almost 1250 employees to approximately 500. In April 2019, efforts began to align the transition of services from the 460,000 square foot legacy facility to the new state-of-the-art 103,000 square foot outpatient clinic scheduled for January 2020. One of the significant change efforts included the consolidation of six separate primary care clinics into one Patient-Centered Medical Home. Shortly after the new clinic transition, the COVID-19 pandemic struck the organization and the ongoing downsizing efforts that concluded in November 2020.

Chapter 2

Coronavirus Disease 2019 (COVID-19) has had an unprecedented impact on the economy and the United States' healthcare system since its arrival in January 2020. Between March and June 2020, the estimated financial result of COVID-19 to the US healthcare system is approximately \$202 billion in losses (American Hospital Association, 2020). These losses are in part due to the significant changes that healthcare organizations have made based on the recommendations of the Centers for Disease Control (CDC), the Centers for Medicare and Medicaid Services (CMS), and other federal and state agencies to minimize risk to patients and staff. There is growing sentiment and evidence that COVID-19 will leave lasting changes in the healthcare system moving forward.

There is a developing body of literature on the impacts of COVID-19 and the changes in healthcare settings. Through a combination of the current state of healthcare for organizations related to COVID-19 in conjunction with the application of Lewin's change model, we can establish a thorough case study for use by learning healthcare organizations to apply best practices lessons learned.

COVID-19. Much of the literature found in the initial search is specific to particular specialties, i.e., dermatology, radiology, vascular surgery, neurology, and orthopedics. However, one of the areas impacted the hardest by COVID-19 was the primary care setting. Primary care, serving as a portal for entry into specialty care and its utilization to manage acute and chronic conditions, plays a critical role in the healthcare system's response to COVID-19. The further investigation highlights changes made in the care and maintenance for vulnerable patients (Kutscher & Kladney, 2020) and those with chronic conditions such as diabetes (Beran et al.,

2021). Bodenheimer and Laing (2020) offer that due to the changes COVID-19 placed on primary care, practices may create positive outcomes and decrease barriers to future care.

Several articles discuss lessons learned regarding the delivery and primary care services in response to COVID-19 internationally. Kearon and Risdon (2020) highlighted the role that primary care and family medicine physicians played early in Canada's crisis response, particularly as the entry point to the health care system. They further discuss the potential impact that they can have on further reduction of disease spread and transmission, the introduction and implementation of vaccine roll-out and delivery, and post-pandemic recovery.

COVID-19 impacted many countries in different ways, in large part due to varying types of healthcare coverage and states of readiness planning and response efforts. Huston et al. (2020) observed the provision of primary care's role in response in six countries in their individual pandemic plans' purviews. These included the impact of primary care regarding personal protective equipment (PPE), testing capability, government support, and primary care utilization in its response plans. Based on the pre-existing health care coverage, the use of primary care services differed drastically by country and had second and third-order effects. Some countries utilized and incentivized primary care to assess patients; some provided government assistance to keep up with the demand of increased workload, while others had no specific plan in place for utilizing primary care services. The authors presented additional observation that an associated decrease in primary care utilization occurred, likely due to patient fear of exposure, coupled with the loss of capacity based mostly on the pandemic's financial impacts.

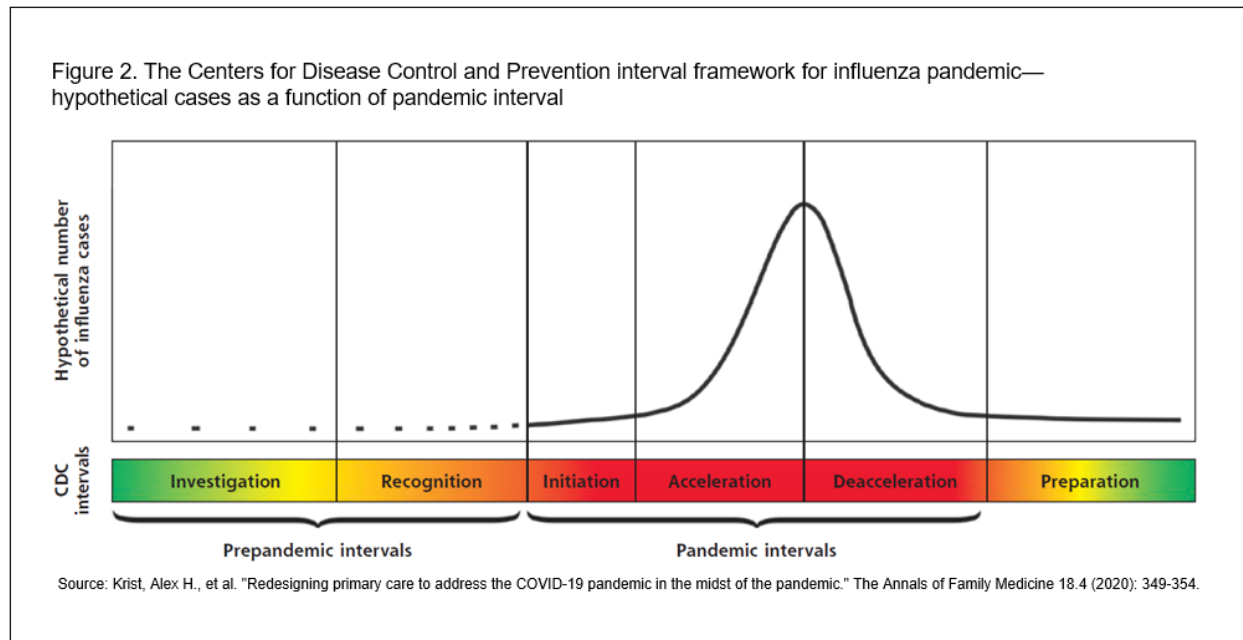
Work by Rawaf et al. (2020) provided additional lessons learned from primary care professionals engaged in the Global Forum on Universal Health Coverage and Primary Health Care. Their qualitative research explored five areas regarding the impact of COVID-19 on the

provision of primary care and the effects on the health of their respective patient populations and yielded notable findings. They noted that significant efforts were needed to change and adapt healthcare delivery to ensure both patients' and staff's safety. Additionally, they found that patients have had to postpone or delay care, intentionally and unintentionally. These delays, potentially caused by risk to and fear of exposure and the secondary effect of the changes made by health care organizations in response to the pandemic. They offer that these delays in care, particularly in patients with chronic conditions, could have significant long-term effects on the patients and health care systems and stressed the community's criticality to maintain access to care and resume normal operations as soon as possible. Lastly, the authors stressed the need for synthesizing information in assuaging patient fears and misinformation and that primary care's role is critical in this step due to the established relationships and trust among providers and patients.

Several of the above articles that discuss lessons learned had two additional major common themes, the lack of coordination and communication between primary care and public health entities in the community and the need to utilize the lessons learned from the response to COVID-19 for future pandemic planning. Based on its role as the initial touchpoint of patients in the system, primary care can share data and information with public health officials for the current state and future preparedness efforts.

As mentioned in the literature regarding lessons learned, health care organizations have had to create innovative ways to deliver health care in response to the COVID-19 pandemic. Some examples in the literature provide theoretical frameworks developed specifically for application in the primary care setting and have applicability to any service delivery setting based on the community's conditions and resources available to the organizations. Krist, Devoe,

Cheng, Ehrlich, and Jones (2020) offered a redesign of primary care to address the pandemic by applying the CDC's interval framework for addressing the influenza pandemic as depicted in Figure 2.



Through the six identified intervals of the model, the authors discussed primary care specific actions and steps for each organization to consider. Of note was the emphasis on the ability to transition quickly to each interval and tailor them specifically to the community's local needs. Additionally, the study addressed many of the barriers and challenges faced by practices to date to include: inadequate information technology infrastructure; financial strains leading to staffing reductions; and ultimately a loss of access to care, in addition to highlighting some of the successes health care has gleaned while offering the importance of capturing lessons learned for future planning.

Utilizing Porter's Value Chain Framework as the basis, Nguyen, Hertelendy, Ashton, and Burkle (2020) created a workflow solution for re-opening primary care services after some of the initial reductions or closures in service. They offered solutions for pre, point of, and after service

delivery to include enhanced triage and screening, adequate social distancing and personal protective measures, and utilization of digital and information technology modalities in service delivery. The model proposes that organizations should factor in culture, structure, and resources when implementing the requisite support activities necessary for executing the service delivery solutions. Much like Krist et al., the emphasis is placed on implementing and managing transformations rapidly to ensure that the standard of care and both staff and patient safety is at the forefront of execution.

Lewis, Seervai, Sha, Abrams, and Zephyrin (2020) found that a large number of primary care providers limited routine health services, which led to a loss in income and the need to modify healthcare delivery models. These changes in delivery models include increased utilization of virtual care and telemedicine. As shown during the COVID-19 pandemic, the use of telemedicine can maintain, and in some cases, increase access to care while reducing exposure to both patients and staff (Rockwell & Gilroy, 2020). Smith et al. (2020) offer that COVID-19 highlights the increased importance of telemedicine while outlining some previous emergencies that have utilized it. They also address some of the barriers to adaptation to include the physicians' willingness, inadequate and reduced reimbursement for utilization, and lack of infrastructure to support extended deployment.

Healthcare staff safety and well-being are other topics found in the literature. Adams and Walls (2020) highlighted two aspects that COVID-19 introduced to the healthcare workforce, increased strain on an already stretched labor force and the increased risk of infection for the staff. Guidelines were introduced for organizations to implement and staff to follow to mitigate risk to front line staff (Baker, Greiner, Maxwell-Schmidt, Lamothe, & Vesonder, 2020).

Lewin's Three-Step Model in Healthcare. There are several examples in the literature that use Lewin's Three-Step Model for change in healthcare settings. Manchester et al. (2014) highlight Lewin's model in the implementation of two evidence-based practice projects in geriatric education. They operationalized the model for collaboration with their staff and key stakeholders in their change efforts' performance. Lewin's change management model was also used in a hospital setting on a health informatics related project. The researchers (Suc, Prokosch, & Ganslandt, 2009) used the model to obtain the support of the hospital board and clinical and administrative staff. Throughout the change process, Lewin's three steps conveyed the necessity for change, implement the proposed changes, and maintain the new modification. Bozak (2003) used Lewin's model as a framework to implement a nursing information system in her role as the nurse informaticist. Despite the staff's attitudes and resistance, utilization of the model facilitated maintenance and incorporation of the new system.

Case-based Learning. Included in the literature review was a small search for utilization of case-based learning as the project's focus would be a teaching case study. The investigation was complicated and yielded minimal results on the administrative or educational side; however, there were some example of applying case-based learning in health care. McLean (2016) conducted a review of worldwide literature regarding case-based education. She found that approximately one-third of the teaching performed was at the graduate level. Her research found that case-based learning was "shown to enhance clinical knowledge, improve teamwork...improve practice behavior, and improve patient outcomes" (p. 47). While what she found focused mostly on clinical practice, some of the principles are relevant to practical application outside the clinic. Another study that highlighted case-based learning in health professional education was conducted by Thistlethwaite et al. (2012), which found that students

could connect theory to practice by applying case-based knowledge. Again, the primary focus was in the clinical setting; however, the classroom setting offered the same experience regardless of discipline.

An example found in the non-clinical healthcare academic setting, which emphasized the use of case-based learning, included the use of Harvard Business School cases in the Doctor of Physical Therapy program at Emory University. Kapasi and Davis (2017) found that introducing these case studies would allow students to think critically and foster innovation in both the classroom and clinical practice. Another example from Emory University took place with the Master of Public Health candidates. Leon, Winskell, McFarland, and Del Rio (2015) offered that the program, while adhering to the competencies set forth by the Association of Schools and Programs of Public Health, chose to augment a case-based approach to link and further enhance the curriculum. This concept is similar to the healthcare management programs accredited by the Commission on Accreditation of Healthcare Management Education (CAHME). While CAHME utilizes competency assessment and benchmarking for the accreditation of graduate programs, several universities hold health administration case competitions annually.

One of this study's purposes is to provide current and future healthcare leaders and healthcare organizations a case study that shows elements for consideration in changing the outpatient healthcare delivery setting during a pandemic. This study will contribute new knowledge from the first-hand application of lessons learned from COVID-19. Lessons learned from this study can be used as a case for future healthcare leaders.

Chapter 3

Given the conditions posed by the COVID-19 pandemic and the varying responses across all levels of government, healthcare organizations had to make significant changes in how they conduct business both in the administration of direct care and in taking steps to protect both staff and patients from disease transmission. Since the qualitative case study methodology explores a particular phenomenon through several data sources, it is well suited to analyze the impact of a topic that's has created substantial demands on a system such as COVID-19 has (Vindrola-Padros et al., 2020; Rashid et al., 2019). We can capture and highlight the critical and unique learning opportunities provided to a healthcare organization through this methodology.

Study Design and Participants

This study is a qualitative study with key informants, using semi-structured interviews with leaders and employees in the outpatient healthcare setting. Ten participants were asked open-ended questions about the rapid changes they experienced, witnessed, and participated in during the COVID-19 pandemic. Due to the need for diversity of thought and involvement level in the change process, participants included employees throughout each level of the organization. Key informant interviews with the executive level staff (Executive Vice President, Chief Medical Officer, and Chief Nursing Officer), department level leaders, both clinical and administrative, and a variety of front line employees from the Independent American Health Clinic. Their responses provided insight into the change. The decision-making process offers context into the implementation of risk mitigation factors and any of the modifications to healthcare delivery to ensure both staff and patient safety.

Procedures

Interviews occurred through a combination of face-to-face, telephone, and virtual modalities in February and March 2021. In this case, the virtual modality used was MS Teams, as it was the primary modality used by IAHC in response to the pandemic. Through the use of an interview protocol, the following series of open-ended questions was asked to participants:

1. What significant changes did you observe in response to COVID-19?
2. Do you feel that the organizational culture enabled /prepared the organization to be responsive to making the necessary changes in response to COVID-19? Why or why not?
3. What was your role in the change process in response to COVID-19?
4. What was the impact of the changes to your specific area of the clinic? Overall healthcare delivery?
5. What areas of the change effort that went well?
6. What implemented changes need to be modified/improved?
7. Do you feel that the changes implemented better posture the clinic for the short term?
8. Do you feel that any of the changes can be sustained for future use?
9. Is there any additional information that you feel would help illustrate the change efforts made by the organization for future lessons learned?

Data Sources, Collection, and Analysis.

The case study involved two primary tools for material collection, the key-informant interviews and the collection of relevant organizational documents such as policies, directives, standard operating procedures, and pandemic specific guidance. Some key informant interviews were recorded and transcribed utilizing the Rev Call Recorder and Recorder application for the iPhone operating system. Some participants preferred not to be recorded and asked that notes just be taken for the analysis. Through an analysis of the interviews, essential and applicable themes or categories universal to the response through categorization were captured. To

adequately develop and analyze themes in the data, Braun and Clarke's (2006) approach, process, and criteria for thematic analysis will be followed and referenced.

Clinic policy and administrative document review, both in place before and those created in response to the pandemic, provided an overview of the application of location-specific conditions relevant to the change process and a common operating picture of the organization's response. Not only were the review of organizational documents specific to IAHC but of guidelines, directives, and stipulations from the system level.

Once all sources are reviewed for relevant information, the analysis used the concept of thematic mapping as outlined by Braun and Clarke to categorize the data into themes. Each theme was then placed into Lewin's 3-Step Change Model (Figure 3) as the framework for examining the change process. The data collected helped to provide an iterative overview and develop and illustrate an overall understanding of the rapid change process at each stage and across multiple levels of the organization.

Chapter 4

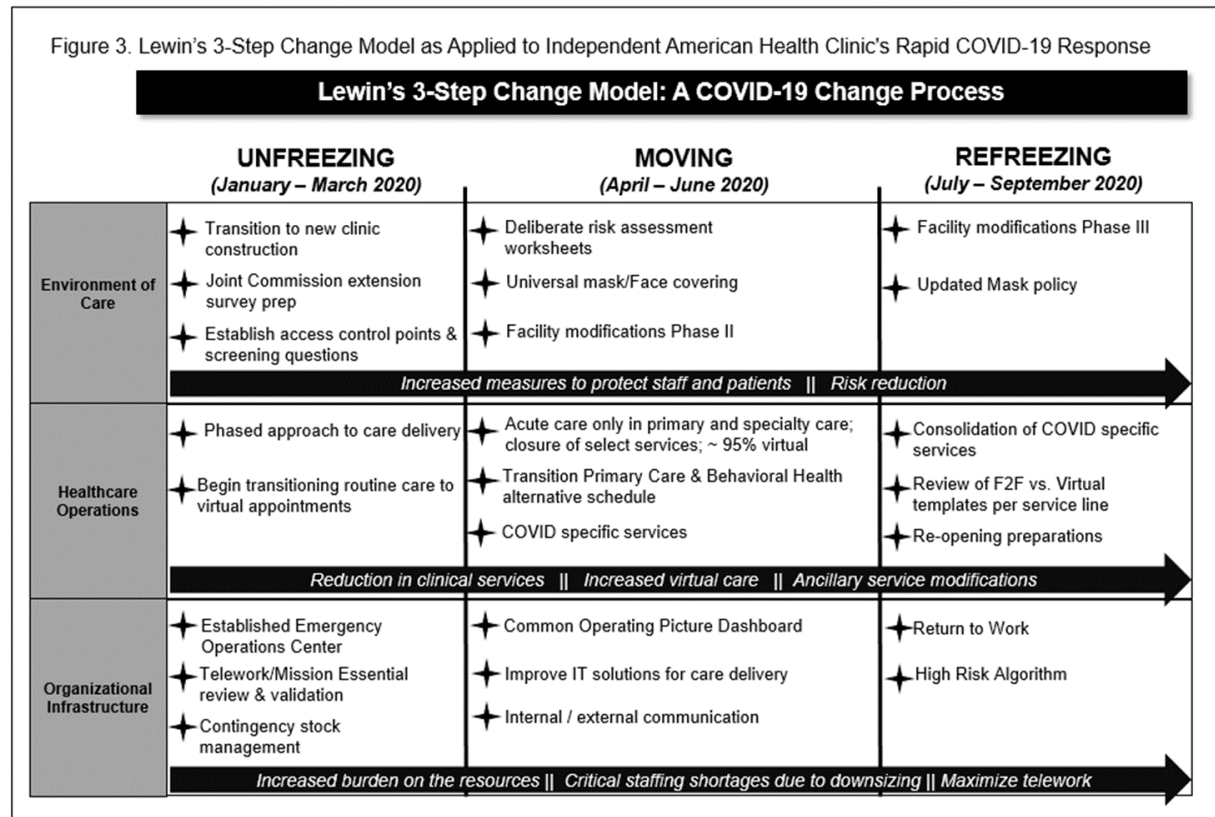
Independent American Health Clinic's change efforts were evaluated between January and September 2020. While January time was at the early onset of the pandemic in the United States, this period's relevancy coincides with the start of services and the organization's new clinic construction. Utilizing the stages of Lewin's 3-step model as the reference, the *unfreezing* stage took place between January and March 2020, predicated on the disruption of regular operations and creating an environment for adopting new practices or behaviors. The *moving* stage took place between April and June 2020. During this stage, change efforts highlighted the necessary modifications to operations based on the developing situation. The *refreezing* stage took place between July and September 2020 and began to codify what IAHC would begin to establish as its new norm. These stages also aligned with the early trend of ascending total cases and transmission levels within IAHC's community and across Kentucky, which also helped establish the analysis intervals.

Three main themes emerged from a combination of the interviews and document review regarding the organization's change efforts: environment of care, healthcare operations, and organizational infrastructure. These themes, relevant topics, and quotations yielded from the

analysis of each are shown in Table 1 below.

Table 1		
Theme Categories, Topics, and Quotations		
Theme	Topics	Quotations
1. Environment of Care		
	A. Safety	<i>Every decision made had the safety of our staff and patients at the forefront of every leaders mind. Every day it is a critical part of decision making, safety was the cog of the wheel.</i>
	B. Security	<i>Some of the areas that may have been a more free flow, where multiple individuals could come in and out of more freely were locked down to ensure proper distancing</i>
	C. Infection Control	<i>Social distancing and improved cleaning methods are both protective measures that were implemented in clinic areas where "sick" people are being seen</i>
	D. Facilities management	<i>Creating a safe environment for employees and patients alike became paramount. This required physical/structural changes as well as process/system changes.</i>
2. Healthcare Operations		
	A. Service modifications	<i>Thanks to COVID, we were forced to change our process, implement a virtual alert medium and provide our patients with a better experience.</i>
	B. Virtual health	<i>I think it has been game changing we will continue to use TBH to meet the needs, meet ATC and reduce stigma ...no need to miss an appointment ever again!</i>
	C. COVID specific care	<i>Respiratory clinic was successful and kept those ill patients out of the regular waiting areas of our regular clinic so as to avoid possible infection of other patients and staff</i>
3. Organizational Infrastructure		
	A. Logistics	<i>Critical supplies encountered delays in shipping, decrease stock on shelves, vendor implementing allocations on certain supplies, and increased supplies on backorder</i>
	B. Human Capital	<i>Manpower and resources were set for our regular missions and then the COVID-19 pandemic came along. We did not have a system that was quickly able to adapt.</i>
	C. Information technology	<i>Virtual technologies were woefully behind where they should have been – we had providers using multiple platforms long before any standard rules were set up</i>
	D. Operational leadership	<i>Leaders should provide guidance and then not turn around and tinker with all parts of the operation... this caused us a lot of problems</i>

The themes were additionally juxtaposed with the stages of Lewin's model. While the information shown is not all-encompassing, it captures and highlights key takeaways from the interviews and executed change efforts retrospectively, as shown in Figure 3.



Theme 1. Environment of Care

The Joint Commission (2021) standards for ambulatory health care, for which IAHC maintains accreditation, defines the goal of the environment of care standard “to promote a safe, functional, and supportive environment within the organization so that quality and safety are preserved” and outlines the three main elements of the environment of care as

- “The building or space, including how it is arranged and special features that protect patients, visitors, and staff
- Equipment used to support patient care or to safely operate the building or space
- People, including those who work within the organization, patients, and anyone else who enters the environment, all of whom have a role in minimizing risks.”

Additional elements included in the management of the environment of care are safety, security, and environmental services. The analysis included the environment of care theme in infection control and facilities management as they played a critical role in maintaining the organization's efforts in this capacity. The principal and ancillary staff for each of these functions were directly involved in IAHC's holistic response to enhance safety and minimize risk across the organization.

Safety was the top priority for the leadership of IAHC from the beginning of the pandemic response. The achievement of zero harm to both patients and staff is a critical component of a healthcare organization's environment of care. The theme of safety was paramount to the organization's ability to deliver healthcare services to its beneficiaries. Continued monitoring of and observance to CDC, state, local, and system-level guidance and recommendations were followed. Across the analyzed period, there were increased measures to protect two of IAHC's main stakeholders, staff and patients. While some may offer that patients are the most crucial stakeholder to a healthcare organization, the ability to provide the services necessary lie with the staff, making both parties' safety equally crucial in the organization's response.

Unfreezing. IAHC successfully executed a complex, multiphase transition plan from its existing 400,000 sq. ft. hospital to its \$60M, 100,000 sq. ft. state of the art, LEED Gold certified clinic in January 2020. This transition came upon the heels of over two years of planning, which included a detailed analysis of space utilization in preparation for adopting the patient-centered medical home model of primary care delivery and a reduction in many specialty care services. Before the execution of the transition of services, each employee received a thorough clinic orientation to include security and safety scenario-based training and simulation training to

revalidate skills competencies for the utilization of new furniture, fixtures, and equipment (FFE) associated with the new construction. Having received Joint Commission accreditation in October 2019 in the legacy facility, an extension survey was planned for IAHC based on the new clinic's construction. With a focus on life safety and care standards once established in the new clinic between January and April 2020, it was not part of the previous survey.

Just as IAHC was settling into operations in its new setting, Kentucky had its first confirmed case of COVID-19, and the governor declared a state of emergency on 06 March 2020 (Schreiner & Lovan, 2020). To ensure the conditions were safe and to mitigate risk for both staff and patients, IAHC leadership had to make several modifications to ensure its environment of care was suitable. First, the IAHC security team, in conjunction with leadership and public health officials, restricted facility access to one entry point for staff and patients. A significant driver behind this decision was to ensure that adequate screening was conducted to reduce transmission. Using an access point screening algorithm consisting of CDC-specific screening questions, designated personnel would follow the procedures outlined based on the visit's nature. This process applied to both patients and staff every time they entered the facility. Additionally, these screening questions were used by the centralized appointing center to determine the risk to both patients and staff before the booking of a face-to-face appointment.

Critical to IAHC's response was the topic of Infection Prevention and Control. This subject matter expertise was critical to preserving the environment of care and ensuring staff and patient safety measures were implemented and adhered to. Utilizing evidence-based practice to determine appropriate practice, IAHC reiterated hand hygiene standards and practices, deployed additional hand sanitizing stations, and modified its environmental services contract to increase the frequency, type, and level of cleaning disinfecting procedures. The development of updated

and advanced personal protective equipment (PPE) policies was critical for several reasons. First, it incorporated ever-changing guidance from the CDC, which changed as more was learned about the virus and its transmission. Second, since most of the care provided is lower acuity, outpatient care, many of the precautions were not typically practiced/utilized by the IAHC staff. These practices were implemented to minimize the risk of transmission to healthcare personnel. They included fit testing for the N95 respirator, isolation gowns, gloves, face shields, the appropriate methods of donning and doffing the equipment and outlined utilization of the airborne infection isolation rooms to treat potentially positive patients. Lastly, it provided strategies for optimizing what would become critical supplies for the organization as the pandemic continued.

The other significant topic regarding the environment of care was facilities management. During this stage, the facilities management staff's focus had been the preparation for the Joint Commission extension survey. However, it would prove to play a significant role in the *moving* and *refreezing* stages. While this theme could fall under operational infrastructure, based on the fact that the clinic was a new construction meaning all of the preventive maintenance and utility infrastructure was well managed, and coupled with the fact that modifications to the layout and design were critical to maintaining staff and patient safety, it is included here. To support the initial changes to the waiting rooms' physical layout allowing for adequate social distancing, the facilities management team removed over 70% of the initial FFE from common areas and placed markers on the floors to ensure distancing compliance. This was done not only within the clinic but IAHC's satellite pharmacy in the community. During this stage, the team also began to assess the physical layout and space allocation, and utilization of the clinical and administrative areas.

Moving. From the environment of care perspective, this stage was essential to monitoring and modifying the virus's dynamics to continue to ensure the safety of the patients and staff. The environment of care had to be adaptive and responsive to the dynamics of the virus and the changing aspects of healthcare operations. While the original focus at the onset of the pandemic response was the outpatient clinic, additional focus during this time was placed on the non-clinical, administrative setting. The reduction of patients from the facility as a result of the service modifications shaped the organization's actions regarding the environment of care. While patients were no longer entering the facility at the same rate, mission-essential staff were still coming to work to collaborate on care and perform virtual appointments from the office setting. This action emphasized the need for social distancing, daily screening for symptoms, and utilization of appropriate PPE. Building on previous guidance from the established PPE policy and refined CDC guidance IAHC developed a new policy for universal mask protocols.

An additional requirement that the executive leadership of IAHC's parent healthcare system implemented for use was the completion of a formal risk management assessment and review for all services performed. The local CEO would be the approval authority for any service or action that qualified as low risk. At the same time, anything that started at high or was mitigated to medium, such as an aerosol-generating procedure, required the system CEO's approval. The intent behind this was to ensure that the service line leaders were taking all necessary and appropriate steps to ensure the highest level of safety to both patients and staff. These assessments would be revalidated every month based on any changes that the service implemented.

The facilities management team continued to make modifications to existing infrastructure to ensure adequate safety precautions were taken. Of particular note was the

addition of Plexiglas barriers to all pharmacy facilities and those currently engaged in direct, face-to-face patient care. These modifications came on the advisement and recommendation of local public health officials who would routinely provide feedback to the IAHC leadership team on ways to improve safety in its operations continuously. Despite implementing all of these steps, IAHC still faced challenges with its staff and coming to work sick, and infecting other team members.

Refreezing. Building on the previous stages of Lewin's model, the analysis of IAHC's environment of care transitioned to the model of establishing the changed behaviors previously practiced. The screening criteria, social distancing, utilization of PPE remained in place; however, there was a somewhat significant change to masks' wear. The policy put into place was modified based on the previous internal COVID transmission within IAHC. The previous policy indicated that an "appropriate mask be worn" this revised policy explicitly stated that a "surgical mask" be worn at all times by IAHC employees when in the workplace to decrease the risk of transmission amongst staff further.

Further facility modifications continued to be implemented, mainly as the clinic started re-opening services and increasing clinical capacity. These modifications included Plexiglas to the remaining clinics from the previous phase and the creation of a secondary centralized appointing center. Another instance highlighted the spread of the infection amongst staff in close quarters in an area where social distancing was impossible.

Theme 2. Healthcare Operations

The COVID-19 pandemic significantly impacted IAHC's healthcare operations. Coupled with the establishment of clinical operations associated with the new clinic's opening, IAHC

developed a redesign of care delivery and created workflow solutions based on the changing conditions and available resources. The topics associated with healthcare operations were service modifications, virtual health, and COVID-specific requirements.

Unfreezing. As previously noted in the environment of care theme, IAHC healthcare operations underwent the transition from the existing legacy facility to the new clinic in a phased approach. To acclimate both staff and patients to the new clinical environment, direct patient care and ancillary services began at reduced capacities with increased appointment and procedure times. The phased approach offered the clinics the ability to increase in capacity to meet the demand for the first 6 weeks of operation, between January and the beginning of March 2020. By utilizing this consolidated and phased care delivery model, it is estimated that approximately 3-4 weeks of patient backlog and demand for care built up as a result leading into mid-March and early April in all clinical specialties.

The Chief Medical Officer and Chief Nursing Officer conducted a review of each service line with its respective chief to determine critical needs during initial pandemic onset. Emphasis was placed on staff and patient safety and the opportunity to cross-level staff to other mission-essential clinical areas. This assessment determined that effective 06 April 2020, all of IAHC's clinical services would either be severely reduced in capacity, 95% would be transitioned to virtual care, or closed until further notice. It also included the concession for face to face appointments as indicated by the care team, new intakes for high risk behavioral health patients, and instances where risk to the patient significantly increases through the disruption of care, such as in post-operative rehabilitative patients.

The necessary changes in response to COVID allowed IAHC to fast track some of the clinical workflow technology that accompanied the new facility's transition but previously had

not yet been incorporated. One of the work centers that benefitted from this was the Pharmacy Department. By utilizing a text messaging capability provided to its patients, they could overhaul their operation completely. Through the consolidation of services to the satellite pharmacy, they could institute a curbside pick-up service. In conjunction with the facilities management team, department leadership was able to remove all patients' ability to remain in the waiting room. Patients would go through the normal screening process at the entrance to drop off their prescriptions. However, they would be required to remain in their vehicles until notified through the messaging system, where the prescription would then be delivered to them. This efficiency generated the ability to cross-level staff and modify operations to enhance both staff and patient safety by reducing exposure risk.

Moving. The introduction of COVID into the community required IAHC to develop services and capabilities that it did not previously have. Of particular note was establishing an isolated clinic for the provision of care of all patients presenting with respiratory symptoms to create separation for those requiring face-to-face care and the addition of in-house COVID testing capability. By utilizing one of their existing facilities in the community, IAHC assessed the feasibility based on mission and staffing requirements. Creating this separation would further reduce the risk of transmission to staff and patients by providing a dedicated staff, location, and operation. The clinic would still operate through the booking of appointments through the call center to ensure appropriate screening and triage. This clinic became instrumental in IAHC establishing COVID testing capabilities. It already provided dedicated staff and adequate space to accommodate the drive-thru concept sought out by clinical leaders.

With the concept of testing capabilities came the need to add the requisite testing equipment and supplies and training and validation to meet regulatory requirements. Since this

was a new capability, modifications needed to be made to the physical space in the laboratory and the accreditation body overseeing the provision of services. Through the health system laboratory manager's oversight, policies and procedures were created to ensure that the calibrations and intervals for the testing were accurate. However, the implementation of this capability came at a cost as two staff members left the already overworked and understaffed work center. These departures further exacerbated the remaining employees and further decreased morale. The tests that were not able to be performed in-house were shipped to a local network lab, primarily due to the lack of staff and the lack of ability to acquire in-house testing supplies rapidly. The community felt the impact as tests sent out took on average 5-7 days at the onset of testing due to strain on the system.

Additionally, due to the transmission of COVID amongst mission-essential staff members operating within the clinic each day, Primary Care and Behavioral Health transitioned to an alternative work schedule. The schedule consisted of the division of care teams within each clinic to mix in-house and virtual workdays. While it was advantageous from the infection control perspective, it presented its own unique set of challenges. It proved increasingly challenging to manage care coordination between the providers and support staff. Due to the lack of a robust and virtual information technology platform, collaboration often proved difficult and was disruptive to the continuity and delivery to the patients. Within Behavioral Health, staff was much more adaptive and forward-leaning in their approaches to care delivery. In the absence of a robust infrastructure, the staff adapted to ensure that it provided adequate services. While this could be associated with the provision of the individual versus team-based approach, it highlighted the differences both positively and negatively.

Refreezing. Through the refinement of facility-wide policies and with the state of Kentucky pressing forward with the re-opening of services based on the guidance pushed out by the CDC and CMS, IAHC continued to be meticulous and deliberate in its planning. Both of the COVID-specific services established in the moving stage were consolidated back to the new clinic after furthering resources. In collapsing these services, the main thought was that there would be duplicative efforts and resources would be conserved in the face of continued critical staffing shortages with the organization.

Similar to the environment of care theme mentioned above, healthcare operations were impacted by the system's decision to implement deliberate risk assessments regarding the provision of care and the potential for looking ahead to re-opening clinical services. Both the Chief Medical Officer and Chief Nursing Officer worked closely with the service line chiefs to ensure that appropriate safeguards were put to minimize risk to both patients and staff within the facility. These changes set the conditions to identify what areas potentially remained too high a risk to re-open based on the transmission trend. However, because most of the services provided were non-operative and non-invasive, coupled with the existing environment of care mitigation strategies, the mitigated risk level for all services was low. Much like the transition into the new clinic that took place six months prior, the decision was made to implement a phased approach to re-opening services with a mixture of face-to-face and continued virtual appointments.

Theme 3. Organizational Infrastructure

While an organization's infrastructure captures more than the topics yielded from the interviews, logistics, human capital, information technology, and operational leadership were highlighted for the purpose of this analysis. Luxon (2015) offers that infrastructure, including medical equipment, information technology, staff, and governance in a healthcare organization,

are key to efficient, high-quality care. Many of the systems and functions were all still newly transitioned with the clinic's opening, and IAHC was still developing and establishing standard operating procedures and processes to provide necessary services. Based on the need to react and adapt quickly in response to the pandemic, IAHC was forced to analyze what areas of its infrastructure could rapidly support the necessary change efforts and where efforts may potentially struggle.

Unfreezing. The new clinic's transition meant a reduction in on-hand inventory and warehouse storage space from the logistics perspective. Coordination and collaboration with their prime vendor to refine their just-in-time inventory stock list ensured a smooth transition based on their new operating environment. While the leadership team faced critical manning shortages, they were initially postured to respond to the organizational needs leading up to the pandemic. Based on the previous Ebola public health emergency and influenza preparedness, IAHC maintained a contingency stock of PPE that, upon initial estimates, would have been adequate.

One of the highest and most expensive costs of operations is an organization's staff. Already operating under the constraints of a pending reduction in force and with several critical vacant positions, human resources and staffing was one of the areas that proved most difficult for IAHC to implement changes to its operations. Staffing shortages were a problem that transitioned with the organization due to the downsizing and hiring cap imposed at the health system level to meet those efforts. One of the most significant factors in evaluating the future impact on services was reviewing and validating mission-essential employees. Supervisors were queried to review employee position descriptions and revalidate what employees met the requirements to be deemed mission essential. Working closely with the labor management-

employee relations cell and in close collaboration with the local union, many employees were designated as mission essential to IAHC's COVID response to ensure the continuity of essential functions during the emergency by reporting to work as regularly required. For those employees not deemed mission essential or telework eligible, IAHC followed the Office of Personnel Management's guidance on utilizing ad hoc telework agreements assuming there was a sufficient amount of work to be completed via telework. IAHC also allowed employees to telework under emergent situations such as the local school or childcare closure or to care for a sick or quarantined family member.

One of the most critical tenets of the organizational infrastructure regarding the pandemic response was information technology (IT). They were one of the busiest support activities regarding the transition to the new clinic. They maintained servers and equipment in the legacy facility to become fully operational in the new facility as a stop-gap. Based on the original timeline for the relocation of servers and equipment to be spring 2020, the IT infrastructure was least prepared for IAHC's pandemic response. They were responsible for managing out of life cycle equipment and the deployment of new IT equipment in the FFE of the new clinic, all with a depleted staff in light of the organizational downsizing.

The last organizational infrastructure topic discussed is operational leadership. White and Griffith (2016) offer that "the purpose of operational leadership is to sustain an infrastructure to ensure that the healthcare organization's array of services is effectively designed, aligned, integrated, and continuously improved" (p. 75) and that "effective alignment rests on ... communication" (p. 75). The concept of operational leadership played a critical role in the organization's ability to respond to the pandemic. For this analysis, the term operational leadership refers to the executive level leadership within IAHC. Shortly after the Kentucky

governor declared a state of emergency, IAHC leadership met with local community partners and other healthcare facilities to discuss and conduct initial coordination to identify capabilities and gaps in mutual support of the emerging COVID-19 threat. Internally, the emergency operations center (EOC) establishment ensured that the control and flow of information for reporting requirements was synchronized. A daily sync meeting and staff safety huddle were added to the battle rhythm to ensure that two-way communication involving vital organizational leaders and stakeholders. While some of these concepts highlight the efforts the organization took with regards to communication, it should be noted that it was also a common area noted by participants during the interview of areas that could use improvement. This included both internal and external stakeholders.

Moving. As pandemic response efforts progressed, there was an increased burden on resources within the organization. Based on the supply chain's stress across the country, IAHC maintained less inventory on the shelves than their prime vendor could support. Included in this was high demand and critical supplies such as certain pharmaceuticals, disinfectants, and PPE. The IAHC Pharmacy Chief, in collaboration with the Chief Medical Officer, released guidance to prescribing providers and pharmacists to provide a 30 day or less supply of specific medications due to national shortages and the manufacturers unable to keep up with supply chain management. The increased and frequent use of PPE led to the depletion of on-hand quantities and decreased contingency stock. Another factor that played into that was the redistribution of supplies at the health system level. While IAHC maintained contingency supplies based on the nature of services provided, the system-directed provisions are cross-leveled to facilities with inpatient and critical care requirements and increased patient demand. With the addition of in-

house COVID testing capabilities, the logistics team struggled to meet the supply demands required to provide the capability based on the lack of national supply.

Despite the ongoing staffing shortages, IAHC moved forward with some hiring actions based on the loss of employees across the organization. While the average time to get an employee through the recruitment and onboarding phase typically took 120 days, due to COVID, those times were delayed an additional 6-8 weeks. To that end, even with the ability to hire, IAHC still faced an uphill battle in filling critical, mission-essential positions filled.

With the transition of healthcare operations to virtual appointments, IT continued to struggle to support the efforts through no fault of the IAHC IT team. There was a lack of direction on a standardized platform for the delivery of virtual care at the system level. Due to the network security requirements, some specific modalities and platforms were not authorized for use. There were further problems for the IAHC IT team as certain clinical services continued to deliver care to support patients in the absence of official direction. Potential network vulnerabilities ultimately led to more work on the part of the IT team. The IT team was able to work with the system to develop an enterprise solution for the integration of MS Teams which helped facilitate those employee teleworking and offered the organization the means to conduct business virtually.

The IAHC leadership team worked to synthesize and streamline information and direction from the health system level and disseminate it for use at the front-line user level. Through the development of a standard operating picture dashboard report that was created daily and a senior medical council conference call with mission partners and healthcare professionals in the community, the IAHC leadership sought to increase transparency and foster cooperative partnerships as it continued to combat COVID-19. There was an increased emphasis on the

deliberate risk assessments in preparation for the potential re-opening of services to align with federal and state agencies' recommendations.

Refreezing. With the push to re-open and provide necessary care to its beneficiaries, IAHC continued to emphasize its patient's and employees' safety. Integral to the *refreezing* stage from the organizational infrastructure perspective was the return to work of the over 300 employees participating in telework since the early part of March. IAHC leadership and key staff developed a phased approach for workplace reintegration and a screening sheet and algorithm for any employee who felt they met the criteria for a heightened risk category as defined by the CDC and wished to be considered for an extension to remain on continued telework. The directive included an assessment to be conducted by all supervisors before returning employees, continued social distancing, and compliance with the organizational policy on the use and wear of masks and PPE if applicable. The leadership convened a panel of executive leaders and medical professionals to review each of the 34 high-risk identification worksheets submitted by IAHC employees. Of the 34, nine were approved to remain on telework, five were approved for a hybrid of in-person and telework, and twenty were determined to fit to return to the workplace. This practice was lauded by the system as a best practice and pushed to the enterprise level for consideration.

With most employees returning to the workplace and an increase in face-to-face clinical encounters, the IT team could continue collaboration at the system level for a long-term solution to the appropriate virtual platform for care delivery. Based on both employees' and supervisors' feedback, efforts are underway to ensure that all employees have the equipment necessary to perform their duties remotely should the need arise.

Chapter 5

The study results show that staff and patients' safety was the number one priority in IAHC's response throughout the observation. The organization's actions across the three main themes: environment of care, healthcare operations, and organizational infrastructure; highlight these efforts and push to the forefront several key planning elements for future response consideration when retrofitted into Lewin's 3-step model. The *unfreezing* stage emphasized the period of disrupted operations initially caused by the organization's transition to the new clinic and its efforts to establish processes while being faced with the need to respond to the pandemic. This point was driven home by seven of the interviewees.

“We just opened the doors to the new clinic a month and a half before that, and everyone was still getting used to working in the clinic, and now people were thrust into having to change how and what they did”. (FL)

As the organization transitioned into the *moving* stage, it began to identify and evaluate the modifications necessary to respond to the pandemic. Some of these changes were done on a trial and error basis and required continued monitoring and review. One of the most significant examples to highlight this concept was implementing the deliberate risk assessments created for each work center. These formal reviews required constant collaboration between all levels of the organization. They ensured the appropriate identification of hazards, determining risk levels, implementing control measures, and evaluating and reassessing all tasks.

“While the process of completing the risk assessments every month was both tedious and monotonous, it truly required staff at the front line and middle management levels to work closely with key leaders in the organization to mitigate risks and ensure the safety of both staff and patients. It allowed us the opportunity to be active participants in impacting the change”. (ML)

The *refreezing* stage is when IAHC began to codify many of the changes they made through the incorporation and revision of policies and procedures. Based on the fluctuating transmission rates during the previous stages, they were able to establish benchmarks and triggers to manage the demand for healthcare services and the appropriate nature of care delivery. Further analysis would allow the organization to see if any additional themes surfaced for the period since the study's conclusion.

Lewin's model provided a framework for use to segment the change process. However, the key informant interviews teased out additional information that provided greater insight into the response that were not included in the model to use for future responses. Table 2 displays a few of the topics noted by participants that did not fit into a particular theme during the mapping process but are worthy of note with some accompanying quotes.

While the analysis results specifically highlight the changes and modifications to the organization based on the themes harvested from the interviews and organizational documents, one area discussed in the research question was touched upon in the interviews but not mentioned as a theme was the organizational culture. As noted by Cameron and Quinn (2011), culture defines the values and assumptions that construct an organization and "serves as the social glue binding an organization together" (p. 18). The organizational culture can be a leading indicator for the ease or difficulty in implementing a change effort and a vital role in its success or failure. All of the participants noted that the organizational culture at IAHC proved to be a barrier to the change efforts.

Table 2	
<i>Additional Topics Noted by Participants</i>	
Topic	Quotations
1. Pandemic planning & training	<p><i>There should be an update to our overall public health illness/emergencies/pandemic plan. While we were able to use what we had as a base, it was evident that even it had areas of weakness.(EL)</i></p> <p><i>As an organization there was a lack of preparedness. Staff not being trained or proficient to handle pandemic specific situations such as patient care via telemedicine, working virtually with requisite modalities, or the proper use and wear of PPE. While some of these shortfalls were specific to COVID, they were never scenarios that we planned for.(FL)</i></p>
2. Resiliency	<p><i>So when you want to talk about the stress on an organization and the morale of the organization, I think everybody was tired. And I remember telling my staff... never let me speak again because it's like I cursed it. I remember telling my staff, "Guys, I need you to hang in there. We're going to get to March of 2020. We're going to get through that second joint commission. They're going to come in and make sure we're all in the building good to go. At March 2020, we're going to just, we're going to be on a glide path. We're going to be able to do our jobs and kind of take a breath." And then boom.(ML)</i></p> <p><i>I think people were exhausted emotionally and physically. And then you throw on top of that the actual pandemic and people were done... I've had a bunch of loss in my department. Several folks have lost family members. Not necessarily to COVID. Some have been to COVID.(ML)</i></p> <p><i>So there's been the whole pandemic, and then you throw on the sociopolitical climate. I mean, I just think there was so much going on that people are kind of, they're a shell of who they were. So there's just that adaptation, is going to be slower because people are exhausted.(EL)</i></p>
3. Business Operations	<p><i>So now we're paying the price because we didn't do coding right, and we weren't constructing the notes exactly as we should have... now in hindsight being "2020", we weren't doing the notes properly. So we weren't getting full credit.(ML)</i></p> <p><i>Because we were getting out ahead of everything, the business rules didn't necessarily match what we were doing. I wouldn't change it. I would still, because I still think we had a responsibility to take care of our patients. But I think we probably lost a bunch of</i></p> <p><i>As things start to change we need to make sure that we can meet the demand of our patients. Finding the appropriate mix of virtual and face to face appointments is a critical piece of that. (EL)</i></p>

It would be easy to assume this due to the regular change efforts that afflicted the organization since 2015. During her interview, a front-line employee who had been with the organization for over 15 years reiterated the following.

“There was so much crap that happened that other organizations were not dealing with. Because who else had just moved into a new building? Who else had just transitioned all their retirees? Who else had gone through these types of things”? (FL)

Another employee of 6 years further echoed these sentiments stating, "If we had not gone through so much change already, we would have been more adept or open to change. People were just tired of change, and COVID exacerbated the issue." Some issues could have been addressed further. However, it might not have been as rapid or urgent as some within the organization pointed out, "There seemed to be a lack of urgency, and the priorities did not align to the immediacy of the COVID situation."

Several participants noted that the staff and culture of the organization did not welcome change. In multiple instances, participants noted that employees fabricated further barriers to the change efforts and "dragged their feet" to new business processes. With these ongoing changes, the feeling was "there was already a culture deeply engrained among many of the employees and that regardless of any leader or event would do, the change would be difficult." With examples like the ones noted by participants, it was evident that the leadership charged with ensuring the safety and continuity of operations would continue to encounter resistance along the way.

Areas of Future Research Consideration

One of the most incredible benefits of the interview process was the ability to gain unique insights and perspectives on not only the organizational response but additional topics that the participants raised that could be further explored to expand the knowledge base regarding COVID. These topics could either be tailored to a specifically to the organization or as part of the overall impact of the pandemic on the healthcare system. The analysis of IAHC's response efforts yielded the following research questions/topics that can be explored:

- Was care quality impacted by employees experiencing low morale, burnout, or poor job as a result of the pandemic?
- Does the utilization of virtual health for the delivery of behavioral health services reduce the associated stigma?
- How can relationships between healthcare organizations and local public health departments improve for future pandemic response?
- Did the adoption of virtual health experiences vary multi-generational healthcare employees?
- What is there long-term cost-benefit of telework for functions historically performing in-person services?
- Are there any plans to modify accreditation standards based on the facility modifications associated with pandemic responses?
- How can organizations capture and incorporate patient perspectives on change efforts into care delivery moving forward?

Limitations

There were limitations to the study. First, the study provided insight into one particular outpatient healthcare facility's change efforts during a specific period. It is hard to generalize the experience of one organization in a particular location since the pandemic impacted different areas in different ways based on things such as state-specific mandates. Additionally, it may have been more beneficial to increase the number of employees engaged in the interviews to gain a more in-depth analysis, particularly with front-line employees. Finally, the lack of experience in conducting/performing interviews likely limited the amount of information generated otherwise.

Conclusion

COVID-19 had a significant impact on healthcare across the United States, and rapid change was necessary for the industry to react appropriately. While there were many similarities in how organizations responded based on multiple federal entities' recommendations, the change efforts made were unique to each organization. The study results showed that IAHC's COVID response and the other simultaneous, organization-wide change efforts presented to support this notion. Being one of fear of the unknown, the initial response was predicated on both staff, and patient's safety, which was evident in the three themes yielded from the analysis and the associated events and highlights within each. Furthermore, the changes made will have a lasting impact on the organization and the community it serves as it begins to operate in a new normal.

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