As a physician organization facing practice site shutdowns due to the Covid-19 pandemic, Central Ohio Primary Care was able to rapidly implement the ability to provide telehealth services across over 70 practice sites with more than 350 physicians (most of whom are shareholders) and other providers in less than 1 week, then further refine the process over the course of 6 weeks with high satisfaction rates among patients and physicians. Collaboration among physicians and information technology and other staff was key in accomplishing the rollout quickly and efficiently.

KEY TAKEAWAYS

· Create a dedicated team, specifically tasked with identifying the needs to facilitate the telehealth effort, including technology, training, and communication.

· The team should include representation of all stakeholder groups.

· Recognize that establishing initial telehealth access involves provider time and that adequate IT-capable staff will be needed to facilitate that implementation.

· Address patient access challenges and orientation to the telehealth process.

· Set ambitious goals with deadlines and provide the resources to achieve them.
· Train providers via printed and video materials, but recognize that one-to-one help may be needed by a subset of providers.

· Recognize that some staff may resist change or use alternate tools; communication and understanding their issues can lead to enhanced methods that mitigate concerns.

· Be sure to communicate the availability of telehealth and how to access it to patients indirectly (website) and directly (through personal calls or texts).

· Assess progress through staff and patient satisfaction surveys.

· Monitor the levels of telehealth and in-patient visits over time.

**The Challenge**

Central Ohio Primary Care (COPC) is a physician-owned group serving more than 350,000 patients in the Columbus area. The organization includes primary care providers along with supporting non-procedural specialists (Table 1).

On a typical day prior to Covid-19, approximately 3,600 patient visits occurred across the organization. Although the company has full risk contracts with Medicare Advantage payers and has incorporated shared savings into all commercial contracts, the majority of revenue for COPC is still generated as fee-for-service income from completed office visits. Following an EHR update in February 2020 that enabled telehealth visits, there were plans to gradually introduce such visits over the course of the next year. These plans were accelerated significantly by the Covid-19 crisis.

On March 12, 2020, the governor of Ohio closed schools effective March 16. Additional orders for business closures quickly followed over the subsequent weekend as the state shut down to limit the spread of SARS-CoV-2. Non-essential office visits were all canceled, which posed an existential threat to COPC. Our challenge was to address and mitigate that threat.

**The Goal**

Our goal was to rapidly create and implement a telemedicine program — within 1 week — that would allow us to continue serving the clinical needs of our patients in a safe and effective manner.
that they found to be useful and satisfying, while securing financial and operational stability for our organization and its employees.

**The Execution**

Central Ohio Primary Care leadership immediately recognized the gravity of the situation and moved into crisis mode. A Covid Task Force of 26 stakeholders including department heads, medical directors, and operational leaders was assembled.

Meetings began on Monday, March 16, and occurred daily at 7:30 a.m. and 1 p.m. with all task force members responsible for completion of assigned tasks at each meeting. Multiple parameters regarding patient visits, Covid testing, and other key performance indicators were tracked on a daily basis, allowing the team to know the status of every aspect of the response in real time (Table 2).

Crisis response encompassed a number of areas, including communication to patients and COPC care team members and rapid assessment of the financial situation, among many other categories. Moving rapidly to telehealth was identified as a critical part of the response and appropriate resources were dedicated to this enterprise. The goal was set to have all providers, approximately 350, able to complete telehealth visits within 1 week. Accomplishing this goal required simultaneously addressing provider- and patient-side access as well as tackling technical issues, as a breakdown of any component would cause the effort to fail.

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*Moving rapidly to telehealth was identified as a critical part of the response and appropriate resources were dedicated to this enterprise. The goal was set to have all providers, approximately 350, able to complete telehealth visits within 1 week.*

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**Provider Orientation and Training**

Enabling physicians and other providers to complete telehealth visits required installation of a client software on each computer and configuring of that software with the physician present to input credentials at several points during the process, followed by completion of a test visit. It was a time-consuming process, taking 10–30 minutes for each provider, which was initially viewed as a significant issue to overcome for implementation.

Staff members previously involved in help desk and other IT work were reassigned to the implementation effort. They were joined by training staff who normally did orientation for new employees and a select group of other interested administrators. Altogether, about 20 staff members took part in setting up telemedicine capability for physicians and the process was completed in 4.5 days.
Also integral to this effort was the dissemination of a *Telehealth Guide* and video instruction for providers and staff members to familiarize themselves with the process of completing a visit and what to do should technical issues occur (Appendix). Viewing the 12-minute video before the initial orientation was encouraged and the resource was made available on our internal website for subsequent review at any time. The *Telehealth Guide* was updated and re-distributed frequently during the first few weeks of the crisis, with best practices from across the organization.

### Table 2: Central Ohio Primary Care Telehealth Key Performance Indicators

| Patient Visits                                                      | Covid-19 COPC and Outside Tests (daily and running totals) |
|---------------------------------------------------------------------|-----------------------------------------------------------|
| Telehealth Visits per 1,000 patients in panel                       | Test Results                                              |
| Total Visits per 1,000 patients in panel                           | Positives                                                 |
| Patient Visits (and subgroups 65+, 18–64, <18)                     | Positivity Rate                                           |
| Home Visits                                                        | Positive Average Age                                      |
| Extensive Care Center Visits                                       | Days: Order To Test Completion                             |
| Same Day Care Center Visits                                        | Days: Test Completion to Result                            |
| Pediatric Support Center Visits                                    | Antibody Tests                                            |
| Respiratory Clinic Visits                                          | Antibody Positives                                        |
| Telehealth Visits (and subgroups 65+, 18–64, <18)                  | Antibody Positivity Rate                                  |
| Telephone (non-Video) Visits                                       | Antibody Positive Average Age                             |
| iPad Telehealth Visits (# High Risk)                               |                                                           |
| In-Person Visits (and subgroups 65+, 18–64, <18)                   |                                                           |
| Rescheduled Visits                                                 |                                                           |
| Canceled Visits                                                    |                                                           |
| % Telehealth Visits (of total visits)                              |                                                           |
| Last Year Visits (Note: zero telehealth in 2019)                   |                                                           |
| % Change from Last Year                                            |                                                           |

| Patient Engagement & Outreach                                      | Proactive Patient Outreach Program (tracked for Medicare Advantage and non-MA) |
|--------------------------------------------------------------------|--------------------------------------------------------------------------------|
| New Patients                                                       | Patients w/Outreach                                                            |
| Providers Set Up for Telehealth Visits                             | Patients w/Assessment Complete                                                  |
| Web-Enabled Patients                                               | % Assessment Complete                                                          |
| Patients Accessing Portal                                          | # w/Completed Telehealth Visits                                                 |
| # w/Scheduled Telehealth Visits                                   | # w/Scheduled Telehealth Visits                                                 |

### Care Navigation / After-Hours Support

| Human Resources                                                    |
|--------------------------------------------------------------------|
| Total Calls                                                        | Total Quarantines                                                             |
| Calls After 4:00 PM                                                | Active Quarantines                                                            |
| % After 4:00 PM                                                    | Total Returned to Work                                                        |
| Total Telehealth Visits (successful set-up)                        | On Leave Due to Covid Symptoms (running total)                               |
| Telehealth Visit with COPC On-Call                                 | On Leave Due to Covid Exposure (running total)                               |
| Telehealth Visit with COPC Now (immediate access)                  | On Leave - Need for Social Distance (running total)                          |
| Telehealth Visit with COPC Next Day (set up)                       | Covid Negative (running total)                                                |
| Telehealth Visit with Same Day Care Center                         | Covid Positive (running total)                                               |
| Triage Acuity for Telehealth <4 Hours                              |                                                                          |
| Triage Acuity for Telehealth Same Day                              |                                                                          |
| Triage Acuity for Telehealth Within 24 Hours                       |                                                                          |
| Triage Acuity for Telehealth Next Business Day                     |                                                                          |

Source: The author
incorporated into each subsequent version, essentially creating a less formal construct of a Learning System.¹

**Patient Orientation and Training**

Accessing telehealth required orientation for patients as well. At the time of the original, pre-pandemic integration of the telemedicine tool in February 2020, the eClinicalWorks telehealth module required patients to be established on the patient portal with access on a computer or to download and activate the eCW module as an app on their phone or tablet. However, we had yet to begin robust patient onboarding. To facilitate patient orientation and integration, medical assistants (who had been to a great extent idled by the cancelation of visits) were re-tasked with patient outreach with the goal of enabling all patients to be seen via telehealth. This was accomplished primarily by reviewing schedules and phoning patients to cancel non-critical office visits and reschedule them as telehealth visits, when appropriate, during the same outreach contact. Staff was also encouraged to use every type of patient contact as an opportunity to familiarize them with telehealth, including calls for refills or requests for general information. The outfacing website for the company was also rededicated to instructions on telehealth; in addition, communications inviting patients to contact us regarding telemedicine visits were made via email, text message, and even a television commercial.

**The Hurdles**

There were a number of hurdles that complicated the process of instituting telehealth. These often required a multifaceted approach involving contributions of multiple team members. The twice-daily Covid Task Force meetings facilitated this process. Issues included technical challenges as well as provider and patient challenges mostly related to new processes. Change is difficult especially when it entails altering finely tuned methodologies that have been in place for years, but which no longer apply in a new paradigm.²⁻³

Technical hurdles included issues with the eCW application with frequent freezing and losing connectivity. This was eventually traced to software not correctly balancing the load of the bandwidth-heavy application. An alternative program called Updox was rapidly vetted and tested by the IT staff and rolled out as a supplement to the embedded eCW module. Physicians also utilized other applications including Doximity, doxy.me, Skype for Business, FaceTime, and Zoom during that early period. Although this posed the potential additional challenge of managing multiple types of software, fortunately most of the providers were able to navigate the programs without IT help. When issues with security in the Zoom platform were identified by the media it was de-authorized and blocked. Likewise, use of non–HIPAA-compliant FaceTime was strongly discouraged, although allowed under emergency measures. The alternative solutions to the built-in EHR functionality also had the disadvantage of not completing patient consents for the telehealth visit automatically and requiring a separate device or window to operate; these shortcomings did serve as additional motivation to maximize the use of the built-in module.

A separate technical issue for patients using the EHR-based system was the need for them to establish an account on the patient portal using a computer or to download and configure software
on a smartphone or tablet as previously noted. Fortunately, eCW quickly rolled out improvements, including the ability to join a visit by clicking a link. That link was automatically sent to the patient at the time of scheduling via email as well as via text message 30 minutes prior to the appointment. The availability of the link significantly simplified the process of joining a telehealth visit for patients.

"Physician buy-in for the telehealth effort was strongly influenced by the need to be productive and to create fee-for-service income, which continues to play a major role in top-line revenue at this stage of COPC’s progression from volume- to value-based care."

Physician buy-in for the telehealth effort was strongly influenced by the need to be productive and to create fee-for-service income, which continues to play a major role in top-line revenue at this stage of COPC’s progression from volume- to value-based care. However, there remained a small group of physicians resistant to the change and who — despite significant attention and encouragement from the implementation team — either declined to participate or expressed extreme dissatisfaction. Typical characteristics of this group included solitary physicians and those who were used to having a greater amount of control over their group, often those with strong personalities. This pattern had been noted among some physicians years earlier during roll-out of EHRs but was particularly evident during the pandemic crisis. Creating a small *strike force* dedicated to immediately addressing concerns of physicians in this group served to both deal with their issues and also to prevent spread of ill will toward telehealth in general. This group was led by our Director of Physician Satisfaction and included dedicated IT and EHR staff when called for along with input from medical directors as needed. It was found that providing these physicians with full transparency regarding how the group was dealing with specific problems and involving them in the solutions was quite an effective means of finding those solutions; indeed, in several cases, the physicians’ input led to improvements in the company’s overall approach to telehealth. For example, language in the *Telehealth Guide* was clarified and additional options of how to record telehealth consent in the electronic chart were created in response to physician input. There did, however, remain a single physician who refused to participate in telehealth. This physician did have an outside income source allowing him additional latitude. Identifying these (fortunately) rare physicians and either addressing their concerns when possible or making the choice to not dedicate further resources to them beyond the point where futility became obvious was another hard-won learning of the process.

Patients were generally very successful at completing telehealth visits. For those with technical challenges, a special IT phone line was set up to help them connect. It was also recognized that some patients did not have suitable devices or Wi-Fi access. For those patients, a Drive-Up Care (DUC) program was implemented. This ongoing program involves providing a cleaned iPad to an identified patient who parks in a designated parking spot with good Wi-Fi coverage. The tablet is pre–logged-in, with the visit in progress, so there is no technical challenge for the patient. Once the visit is complete, the iPad is returned and prepared for the next patient. For homebound patients
who lacked technology in the home, a care coordinator was dispatched to their residence with a portable hotspot to facilitate a telehealth visit with their PCP in the same fashion.

“**It was also recognized that some patients did not have suitable devices or Wi-Fi access. For those patients, a Drive-Up Care (DUC) program was implemented. This ongoing program involves providing a cleaned iPad to an identified patient who parks in a designated parking spot with good Wi-Fi coverage.**"

Expanding the time patients can access physicians has also played a large role COPC’s Covid-19 response. Prior to the pandemic, patients calling during off hours would reach our Care Navigation Center and speak to a nurse for triage and home instructions followed when indicated by referral to appropriate level of care (e.g., ER, urgent care) or scheduling with their physician for an in-person visit the next business day. This process was radically changed by Covid-19. With the dearth of patients being seen in offices, a highly motivated group of physicians was found who are willing to provide care in the evenings and on weekends via telehealth. These COPC Now physicians, who designate themselves as available in a secure text messaging system (Halo), are sent a secure message regarding any patients in need of immediate evening or weekend access. This capability presently exists until 11 p.m. weekdays and from 7:30 a.m. to 11 p.m. on weekends. From the institution of the program through its first 3 months, through late June, more than 800 patients received quality after-hours care in this manner, many avoiding a costly and potentially risky emergency room visit. We believe that providing this level of care has allowed COPC patients to maintain a reduction in ER and hospital utilization beyond that which has been observed in other areas around the country by affiliated groups. At the same time, easy access to trained triage nurses backed with physician-provided telehealth services has minimized the risk of patients ignoring important symptoms and neglecting care.

Through all of these challenges, maintaining communication was found to be a key component of success. In addition to the twice-daily Covid Task Force meetings, weekly virtual meetings were instituted for Site Managers, which concentrated on operational details and updates from the Ohio Department of Health and the federal Centers for Disease Control and Prevention. A weekly cadence was also established for all-provider forums, which were sometimes combined with regularly scheduled meetings of the Board and other governing bodies of COPC.

**The Team**

Those involved in the Covid Task Force meetings included: Chief Executive Officer (nominal chair of meetings); Chief Operating Officer; Chief Medical Officer; Medical Directors (5); Chief Human Resources Officer; Chief Financial Officer; General Counsel Director of Revenue Cycle; Director of Physician Satisfaction; Compliance Officer; Director of Practice Operations; Chief Information Officer; Information Technology Director; EHR Director; Director of Nursing; Nurse Manager,
Care Navigation; Chief Program Director, Post-Acute Care, and Director of Marketing and Communication.

The Metrics

COPC was able to reach a maximum of more than 2,200 telehealth visits in a day, comprising about 75% of total visits during the most severe period of lockdown in April. In April 2019, prior to the pandemic, COPC saw 80,665 patients for in-person visits. In April 2020, we saw 56,237 patients with 41,734 of these visits being done via telehealth. Over the ensuing months, COPC actually saw an increase in total number of visits (in person and telehealth) compared to 2019 when only in-person visits were completed. From a baseline of zero telehealth visits before March, our physicians and providers were able to complete their 100,000th telehealth visit on July 10 (Figure 1).

FIGURE 1

Telehealth and In-Office Weekday Patient Visits, March 9 to September 25, 2020, with Year-Over-Year Comparison

Despite the significant impact of the Covid-19 pandemic on in-office patient visits, telehealth visits helped ensure the viability of the physician group practice. Today, while in-office volume has resumed, telehealth visits continue to play an important role and will continue to do so in the post-pandemic environment. As of late July 2020, with the support of telehealth visit volume, Central Ohio Primary Care frequently actually exceeded 2019 total patient visit levels.

As offices opened up to in-person visits, the percentage of telehealth visits has steadily declined but now appears stable in the 15%–18% range — but this capability is “at the ready” to ramp up if needed.
While visit numbers are important, the quality of those visits is even more consequential. Patient satisfaction was, therefore, assessed with a brief survey sent out by text to patients after their telehealth visit. A total of 23,715 surveys were sent to patients with a response rate of 33%. Feedback was overwhelmingly positive with about 98% reporting satisfaction with telehealth and 83% expressing the view that the visit was as good or better than a traditional visit (Table 3).

Even accounting for some Hawthorne effect in these early survey numbers, given the respondents’ awareness of participating in a study, the results clearly indicated extensive support among the patient base for telehealth.

Providers were also surveyed. There were 177 completed surveys from 398 invitations, a 44.5% response rate; 97% of the providers indicated confidence in their ability to provide quality telehealth services and more than 87% stated that they intended to continue telehealth in their practices after the pandemic is over. Providers were also presented with 3 open-text boxes to list the top 3 diagnoses that they felt could be effectively treated over telehealth. Many physicians typed more than one diagnosis in each box and these were compiled into a list of the most commonly mentioned clinical entities (Table 4).

Not surprisingly, the highest-ranked responses included behavioral health issues; but also frequently mentioned were medication follow-ups and wellness exams, along with URIs and UTIs. There was variance in physician comfort treating some conditions via telehealth, just as there is in regular practice.

**Where to Start**

The experience of rapidly implementing telehealth services for a large population was both challenging and rewarding. By instituting telehealth services, COPC was able to significantly
blunt the financial impact of the lockdown. Compared to the prior year, the number of patients seen in April was about 30% lower. Without telehealth services, that number would have been an 82% reduction in billable visits. Telehealth services will remain financially viable in a fee-for-service model as long as payers continue to reimburse at rates similar to in-person rates. Even in the absence of reimbursement parity, for practices working in risk-based models, telehealth continues to provide significant value; this is especially relevant with after-hours telehealth, which appears to reduce ER utilization. This was demonstrated with a small study reviewing 19 electronic health records of patients who received a telehealth visit on a Saturday in June. The physician chart reviewer conservatively estimated at least 3 patients would have gone to the ER and the other 16 would have required some type of care (ER or urgent care) before the next business day. As health care payment is expected to become more and more value based in the future, avoidance of ER utilization alone will likely justify institution of a telehealth program based on cost-savings to risk-bearing entities providing comprehensive patient care.

Even in the absence of reimbursement parity, for practices working in risk-based models, telehealth continues to provide significant value; this is especially relevant with after-hours telehealth, which appears to reduce ER utilization.

For those looking to develop or expand their telehealth offerings, it is important to recognize the value of a dedicated and collaborative design and implementation team that includes representation by all key stakeholders, as well as ongoing and frequent communication among all members of the organization. Providers who are engaged in the process provide great value and also are more likely to follow recommended successful methodologies during the implementation. These efforts have resulted in improved access to high-quality of care for our patients, changes that have now been incorporated into our daily practice.

Our company intends to continue providing the innovative care models discussed to sustain these benefits in our goal to be “The Best for Primary Care.”
Robert L. Stone, MD
Senior Medical Director of Ambulatory Services, Central Ohio Primary Care
Abridged COPC Telehealth Guide

Disclosure: Robert Stone is a shareholder in Central Ohio Primary Care.

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