As the effects of SARS-CoV-2 continue to devastate patients and challenge health care workers, the leaders at Sharp Rees-Stealy, a multispecialty medical group in San Diego affiliated with Sharp HealthCare, have recognized the need to respond not only to existing demands, but to re-envision how health care will be delivered going forward. Some changes made in the moment of heightened Covid-19 infections will be adopted and adapted for the long-term. Changes include redesigned physical ingress and egress for patients and employees, as well as major redeployments and retraining of staff and a new approach to patient encounters, including integration of virtual visits as a regular mode of care, plus increased focus on social determinants.

Covid-19 has sparked a new normal in health care delivery, particularly among group medical practices treating thousands of patients a week.¹⁻³ As a result, leaders at virtually every such practice in the United States must rethink their daily operations for the long-term. Sharp Rees-Stealy Medical Group is taking this journey, and it will never operate in the same way again.

What do the changes prompted by Covid-19 look like? They range from the dramatic, such as completely redesigned ingress and egress for patients and employees, to the subtle, such as more transparent physical barriers and the absence of magazines, brochures, or items in the waiting rooms that could be handled by multiple patients. But they also include major redeployments and retraining of staff, a new approach to patient encounters, purchases of new equipment, and different approaches to capital projects.
Pandemic Experience Informs Post-Pandemic Strategy

At Sharp Rees-Stealy (SRS), a 580-physician multispecialty medical group in San Diego affiliated with Sharp HealthCare, the initial adjustments to the pandemic were especially challenging. SRS outpatient facilities discontinued all non-essential in-person visits, yet still had to manage the primary care and specialty needs of thousands of patients. This prompted the scaling up of telehealth encounters from a few dozen in February 2020 to more than 2,000 a day in March 2020. For patients seen in clinic for essential visits, screening processes were quickly developed at point of entry to ensure patients and staff within the buildings remained safe. Any symptomatic patients were seen by their treating physician in outdoor respiratory clinics or an isolated area with appropriately protected staff. All patients are screened, provided a mask if they don’t have an appropriate face covering, and are required to use hand sanitizer before entering the clinic.

SRS staff had to overcome enormous logistical challenges in order to achieve this transition efficiently. Initial on-hold wait times for patients who phoned in for information and services in the early days of the pandemic and related shutdowns was 27 minutes. That metric was slashed to around 10 seconds within a matter of days. That feat was accomplished, in part, by moving the members of the medical staff most personally vulnerable to Covid-19 infection away from actual patient encounters into roles providing telemedicine visits, which expanded the capacity to provide care on patient phone calls. We also set up a secure messaging system platform so patients could quickly communicate with staff and receive a rapid response regarding appointment availability and other information.

The transformation was further bolstered by SRS’s purchase of equipment to enable physicians to perform telemedicine encounters at home, training those physicians remotely, and expanding from one to three telemedicine platforms in order to offer every doctor the options that would maximize their comfort working virtually. In terms of hardware, high-resolution web cameras, averaging from $70 to $100 each, were the main requirements for home setup. In some cases, USB or Bluetooth headsets were purchased to provide better audio quality during telemedicine visits. To ensure the virtual encounters provided the same experience as an in-person visit, physicians were encouraged to attend "webside manner" training sessions to teach best practices for video. A stipend of $140 was provided for additional hardware purchases to anyone who attended these training sessions. Software licenses for use of the telehealth platform had to be purchased for all the physicians. Depending on the platform chosen, license cost can range from free (with limited features) to approximately $50 per provider per month.

"70% of its patients are treated on a capitated basis (which includes both Medicare and commercial payers). These arrangements provided steady enough cash flow to make dramatic changes to how patient encounters are modeled, without the pressure to rapidly recoup enormous amounts of lost revenue."

Although SRS did take an initial financial hit from these expenditures and the drop in non-essential procedures, it had the flexibility to make these broad changes due to its payer mix: 70% of its patients are treated on a capitated basis (which includes both Medicare and commercial payers). These arrangements provided steady enough cash flow to make dramatic changes to how patient encounters are modeled, without the pressure to rapidly recoup enormous amounts of lost revenue. Some procedural specialists did experience reduced workload due to the postponement of non-essential care, but that rose again once services were resumed in June.

The adjustment to the demands of the pandemic has also prompted clinic leadership to think carefully about how SRS will be operating in the months and years to come. The conclusion is that the organization will treat patients in a radically different manner, with Covid-19 accelerating a move toward virtual care that was previously expected to take a decade.

**Impact on Remote Patient Encounters**

In 2019, SRS set modest goals of having 3% of patient encounters conducted via a telemedicine platform by 2021. That would rise to 10% by 2023. These estimates have been thrown out the window due to the pandemic. At the worst of the Covid-19 crisis in late spring, 70% of SRS patient visits were virtual (Figure 1).
Even when Covid-19 vanishes from the landscape, we are now planning that between 15% to 30% of all patient encounters will be remote — triple the pre-Covid goal that had been set for 2023. But it is possible that percentage will be lower (Table 1).

In some departments, such as internal and family medicine, the virtual encounter rate approaches 60%, while specialty care is lower. Currently, about one-third of encounters involving medical
specialists are now virtual. However, telemedicine has been less widely embraced when it involves more complicated procedures or pediatric patients. Only about 10% of surgical specialty encounters are virtual, as are about 16% of pediatric visits.

Taking this case mix data into account, SRS is aiming for 50% to 60% of all primary care visits to be virtual by 2021. We also plan for virtual visits at 30% of all specialty encounters except for surgical consultations, for which we will aim for 10% to 20% of visits to be virtual. These targets are supported by current encounter data.

As a result, the entire process of how SRS manages patients and patient volume is being retooled to accommodate the new ways patients are interacting with their physicians and advanced practice providers (Appendix).

**Impact on Personnel**

Several members of the staff have been assigned to a newly created position of telemedicine navigator. This virtual navigator position is typically staffed with a medical assistant, and functions in a telemedicine role that is nearly analogous to that of any medical assistant in a busy primary care office, but with the added skills of scheduling telemedicine appointments and limited troubleshooting of the telemedicine platform. It is necessary to have close to 1 navigator per telemedicine provider, certainly no fewer than 2 navigators to 3 providers.

The job is designed to ensure that communication with patients — outside of the virtual visit with their provider — is swift and clear. These navigators answer patient questions and collect relevant medical information through phone calls and secure messaging. They also prepare patients for telemedicine visits by testing the computer equipment they use at home.

The medical staff has also been redeployed. SRS doctors have the option to work some days at home and some days in their medical offices or work in their offices providing a combination of in-person and virtual care. This re-configuration not only promotes social distancing, but according to informal feedback, it also assists the physicians in maintaining a healthy work-life balance, as they have more flexibility and less burnout when they can choose from these options. When

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**Table 1. Sharp Rees-Stealy Virtual Care Rates: 2020 Actual and 2021 Target**

| Medical Care Category       | Week of 8-7-2020 | Target for 2021 |
|----------------------------|------------------|-----------------|
| Family Medicine            | 59.5%            | 27.0%           |
| Pediatric Internal Medicine| 28.1%            | 27.0%           |
| Internal Medicine          | 60.5%            | 30.0%           |
| Pediatric Primary Care     | 15.9%            | 24.9%           |
| Specialty Care             | 36.3%            | 36.4%           |
| Surgical Specialties       | 10.2%            | 8.3%            |
| Primary Care               | 52.2%            | 30.2%           |
| **All Patient Encounters** | **37.5%**        | **26.3%**       |

To determine 2021 virtual care targets, we carefully tracked the amount and percent of in-person and virtual visits each week and compared that to our staffing levels, taking into account backlogs for in-person visits. Initially, we’d hoped to set 2021 telemedicine visits at about 30% of the overall total, but as physicians returned to the office and patients became more comfortable with in-office care, that demand is increasing; so, despite efforts to maximize the use of telemedicine, the 2021 average may be closer to 15% telemedicine.

Source: The authors
physicians do work on-site, they split their patient encounters between telemedicine and in-person encounters.

These adjustments have created enough space for doctors to conduct necessary in-person visits without straining physical capacity and preventing the spread of Covid-19. And while convenience is provided for patients through expanded evening and weekend hours for appointments, the spreading out of encounters reduces crowding that might compromise physical distancing.

Despite the disruptions in their routines, the medical staff was buoyed by the ability to continue seeing their patients while protecting their own health. In an effort to sustain morale during the crisis, leadership continues to reach out to physicians/APPs and staff to ensure they are updated on efforts in the pandemic and how the group is doing. Part of our culture is annually surveying our physicians/APP’s and staff for their satisfaction. In the most recent staff survey, 80% of employees stated they feel satisfied with how SRS has responded to the pandemic, which exceeds ambulatory benchmarks by more than 12 percentage points. The yearly physician/APP survey will occur in March 2021.

Some of these changes — brought about due to the urgency associated with a highly infectious virus — also have implications for providers on medical leaves of absence due to physical limitations. Some who had been unable to perform their tasks in a traditional medical office have been able to resume work through telemedicine encounters.

Impact on Clinician Retraining and Webside Manner

Meanwhile, medical staff members have been undergoing extensive retraining to ensure they can handle a significant number of telemedicine appointments for the foreseeable future. The biggest focus has been on webside manner: the ability to ensure digital touch points are as empathetic and caring as in-person visits. Staff is also being trained in how to enhance their relationships and convey support and encouragement to their patients over video and through plans of care delivered digitally. Training is even being provided on the finer points of making a digital message empathetic.
We continue to make adjustments as physicians and care team members learn more about what works well and where we have continued opportunities for improvement. For example, we found that having the support staff connect with the patient to ensure their video and audio connection was good helped reduce the occurrence of technical issues during the physician visit. One opportunity for improvement is our process for concluding the visit. For primary care patients seen in the clinic, our process includes the use of a standardized form for providers to indicate the timing and reason for the next appointment, helpful phone numbers, and other important instructions. We have designed an electronic form that will be imbedded in the medical record note for each visit so that when a patient reviews the medical record online, they will have clear instructions regarding the next steps in their care. Closing the visit is also part of the webservice training sessions our doctors attend. They are provided insights on how to ensure the care plan is both documented and shared with the patient.

As for the patient experience, we have received Press Ganey comments from patients around the comprehensiveness of the visit. This aligns with the goal to provide the same value to the patient virtually, as we would in the clinic. We don’t want to just meet the immediate patient need, but ensure we are focusing on the overall health and wellbeing of our patients. Since SRS is part of an integrated delivery system, the physician you see via telemedicine is often the same physician you’d see in-person. Regardless of which doctor cares for the patient, all SRS physicians have access to patients’ electronic medical records. This integration enables the physician to order labs, radiology, medications, and consult with specialty physicians regarding the patient’s care.

The primary care teams are also using a virtual rooming process wherein clinical staff gather all critical information for the visit, address health maintenance care gaps (such as breast, cervical, and colorectal cancer screenings), set the patient agenda, and complete medication reconciliation. This virtual rooming process is facilitated with a quick 5- to 10-minute phone call, 1 to 2 days prior to the appointment. As we expand our digital capabilities, the goal is to transition this to an electronic process that can be completed by the patient at their convenience — freeing up time for the care team to focus on other value-added work and further engaging the patient in their care.

**Impact on Design and Budgeting**

Sharp Rees-Stealy opened a new medical center in October 2020. However, Covid-19 prompted modifications in order to accommodate social distancing. A workplace design that encourages physicians and nurses to work closely together was modified by installing movable, floor-to-ceiling partitions that still allow collaboration and communication while maintaining physical separation. Glass barriers were installed to all transaction counters where patients and staff are face-to-face. Further, the Urgent Care–run outdoor respiratory clinic was erected in the parking lot complete with Wi-Fi and electricity, allowing patients with respiratory symptoms to be cared for while isolated from other patients and staff. All of these modifications accounted for less than 1% of the project budget.

Although these changes have so far had a fairly minimal impact on the budget for this expansion project, Covid-19 precautions are likely to inform future projects by including design features that encourage social distancing and ensure the safety of patients and staff. There may even be some
switches from brick-and-mortar to digital initiatives. One such example is SRS’s recent launch of virtual urgent care, where patients are able to have an encounter with a physician on demand. This will supplement the care delivered at our five existing physical urgent care centers.

**Impact on Patient Education**

SRS has long embraced value-based care with a robust population health program for patients with chronic illnesses. The program includes a group of clinicians — nurse case managers, social workers, diabetic educators, health coaches, and community health workers — who educate patients who have diabetes, congestive heart failure, and other chronic conditions on how to take better care of themselves and change their lifestyle to improve their health. Covid-19 has forced this group of about 40 licensed and non-licensed FTEs to rethink how to deliver these services to 7,610 unique engaged patients. This includes increased virtual interaction between patients and staff — that can be phone calls, televideo visits, texting programs, email/secure messaging — which means that many of the “touches” with patients are different.

Although staff have not yet, as of mid-October 2020, resumed in-person patient education classes, they are considering how this information will be delivered in the future, with a focus on in-person classes containing fewer patients and perhaps even conducted outdoors.

These patient educators are also redesigning their curriculum so it can be delivered directly to the smartphones of patients and their families. Numerous online videos have been produced in recent weeks focusing on issues ranging from managing diabetes to preparing for a colon cancer screening. Staff is also being retrained to better engage and educate patients in a hybrid in-person/virtual environment.

We also have reconfigured some of our population health initiatives. During the initial shutdown of in-person services, population health program staff began immediately reaching out to all at-risk patients with chronic illnesses such as hypertension and diabetes to determine if they had any urgent needs, including food, medications/refills, transportation, or even reassurance. A lot of the initial touches involved comforting, a bit of Covid-19 education, and guidance on navigation to deal with canceled appointments or new televisits. Potential care gap issues were addressed through telehealth visits.

Given the economic fallout caused by Covid-19,6 staff also began screening patients for food insecurity. Patients were identified through outreach using a text-based app as well as referrals from physicians. The social work team further evaluated their needs and referred to community resources and distributed gift cards for use at local grocery stores. The gift cards were purchased using medical group foundation funds. As of late October 2020, more than $43,000 in gift cards had been distributed to more than 300 patients and their families.
Over the long-term, Sharp Rees-Stealy anticipates that the skill and ability to take care of patients virtually will become a part of everyone’s routine job duties. Remote care will cease being telemedicine and will become just another option for health care delivery."

Looking Ahead

Over the long-term, Sharp Rees-Stealy anticipates that the skill and ability to take care of patients virtually will become a part of everyone’s routine job duties. Remote care will cease being telemedicine and will become just another option for health care delivery. Likewise, the novel coronavirus has sharpened the focus of the impact of socioeconomic factors on the health of vulnerable populations. How all of this unfolds remains unclear, but it is certain medical groups are entering a new phase of care delivery, training, and facility redesign. Their leadership and staff now must rise to the challenge of our new reality.

Appendix

Virtual Primary Care Flow Process

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Disclosures: Stacey Hrountas, Alan J. Bier, and Steven Green have nothing to disclose.

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