The Rise of Telemedicine:
Impacts on Healthcare Planning

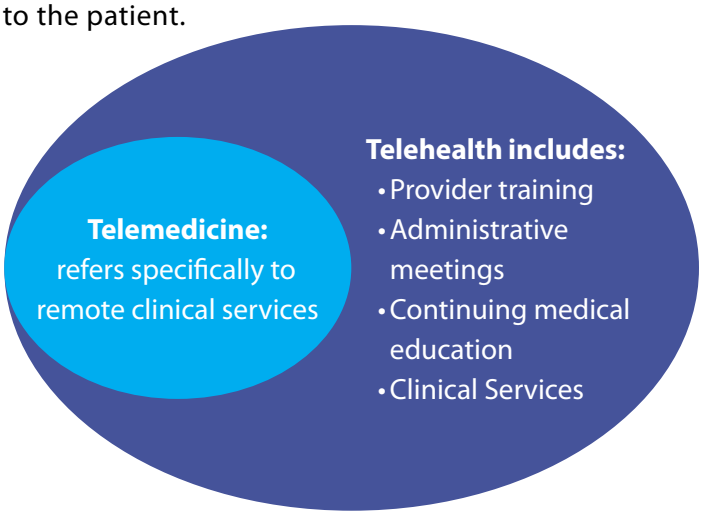
The COVID-19 pandemic has fundamentally altered the way that care is given. Telemedicine, long seen as the future of healthcare, has become one of many "new normals" that providers and patients must navigate. In this paper, we will explore the increase in usage of Telemedicine, provide several considerations when planning facilities, and highlight some best practices for effective implementation.

While access to virtual healthcare platforms has been on the rise in recent years, the impact of COVID-19 has accelerated that trend, encouraged by restrictions on office visits and in some instances, reduced or zero insurance copays.

Patients are attaining more convenient access to healthcare, while avoiding the need to interact with other sick patients, leading to higher satisfaction and loyalty. Providers can better manage privacy concerns and missed appointments while still scheduling needed in-person visits and achieve greater efficiency. The healthcare network can expand access into the community to improve quality measures and outcomes.

Unfortunately, Medicare restrictions and private insurance coverage has not yet fully or consistently adopted these changes and are still adjusting their administrative policies.

As defined by the American Academy of Family Physicians, **"telemedicine"** is clinical services delivered by a physician at a remote location, while **"telehealth"** includes broader scope of remote non-clinical services such as training and patient education. Telemedicine includes delivering care to patients within their current system via real-time communication but could also utilize remote clinical services of other specialists, perhaps practicing within a provider more conveniently located to the patient.



Telemedicine is fundamentally altering how services are delivered and impacting the relationship between patient and provider.

A recent McKinsey and Company report projects rise in telehealth services could eventually result in a shift of $250 billion of current US healthcare costs. This could include 20% of Emergency Department visits and 24% of outpatient office visits. Increased use of wearable devices to monitor pre-existing health conditions may also contribute to these trends.

$250 BILLION

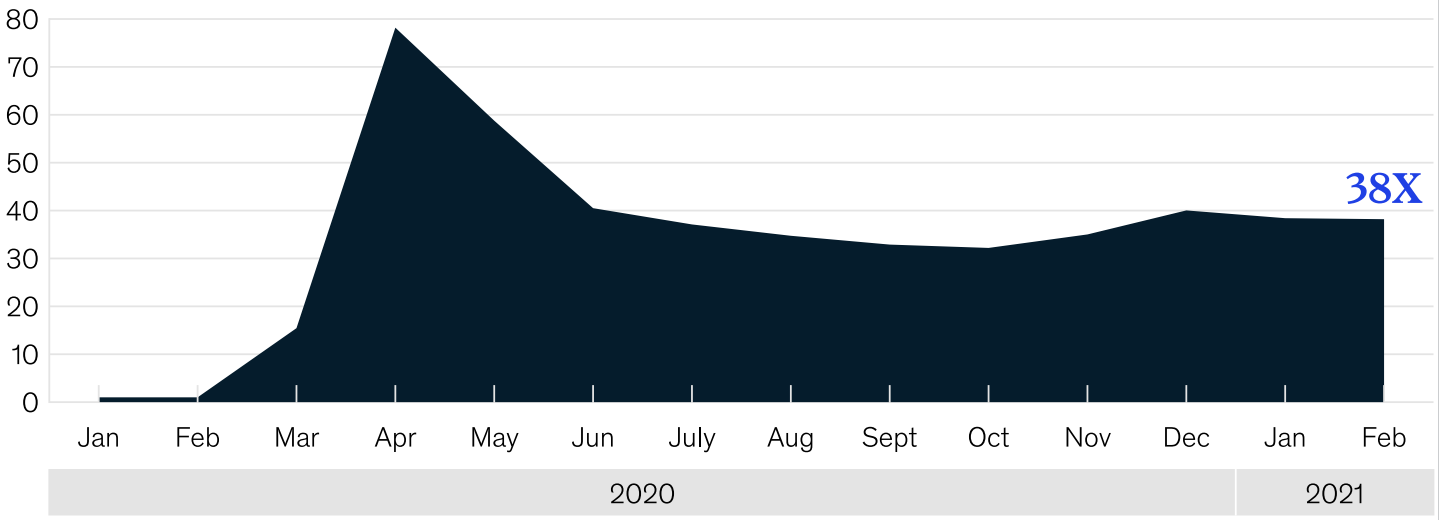
A rise in telehealth services could result in a $250 Billion shift of US healthcare costs

According to the AMA Telehealth Implementation Playbook and the American Academy of Family Physicians, telemedicine is most appropriate for simple and low-risk diagnoses requiring a prescription (i.e. colds and flu, UTI's), follow up and recurring care to manage chronic conditions, behavioral health counseling and medication management, other routine appointments, and for people with transportation difficulties. If these projections are realized, healthcare planning must consider the real impacts of telemedicine and its effect on design.

Growth in telehealth usage peaked during April 2020 but has since stabilized.

Telehealth claims volumes, compared to pre-Covid-19 levels (February 2020 = 1)[1]

McKinsey & Company



[1] Includes cardiology, dental/oral, dermatology, endocrinology, ENT medicine, gastroenterology, general medicine, general surgery, gynecology, hematology, infectious diseases, neonatal, nephrology, neurological medicine, neurosurgery, oncology, ophthalmology, orthopedic surgery, poisoning/drug tox./comp. of TX, psychiatry, pulmonary medicine, rheumatology, substance use disorder treatment, urology. Also includes only evaluation and management visits; excludes emergency department, hospital inpatient, and physiatry inpatient claims; excludes certain low-volume specialties.
Source: Compile database; McKinsey analysis

PLANNING CONSIDERATIONS

The 2018 edition of Guidelines for Design and Construction of Outpatient Facilities greatly expanded on the recommendations for design of spaces devoted to telemedicine services. However, they state in the Appendix that,

> ***"The requirements in this section are not intended to apply to virtual visits that do not require a physical examination of the patient or visits that originate from a physician's or patient's home."***

Regardless, their recommendations are useful for all types of virtual care, as they speak to the environmental characteristics suggested for effective delivery of home-based care as well.

Telemedicine can also take several paths: consultation with the patient's primary care provider, by a physician or other healthcare professional dedicated to virtual appointments, or by a specialist in tandem with the primary care delivery team. In either instance, care is not being delivered in a physical office, and therefore, the facility's program needs are affected.

These are some areas to consider when a portion of the patient volume is diverted:

OPERATIONS

Support services and workflow must be re-evaluated to adjust for new workflows such as access to electronic medical records by a physician other than the patient's care provider.

EXAM ROOMS

The number of rooms shall respond to physical daily patient volumes & trends, instead of basing on traditional planning benchmark of three exam rooms per providers, or other past experience.

QUEUING SPACE

Does a smaller in-person caseload reduce delays in the waiting room, or will social distancing concerns spread-out waiting patients?

PARKING

Are fewer parking spaces needed?

CRITICAL SERVICES

How will virtual visits impact secondary diversions from Urgent Care and ED?

STAFFING

Are fewer nursing and support staff needed?

PROGRAM NEEDS

It is critical that spaces designed to provide telemedicine services do not distract or compromise the provider's ability to provide the same level of care as an in-person encounter. Not only does the provider need to project a professional image in their appearance and body language, but the environment where a virtual encounter takes place needs to be carefully considered.

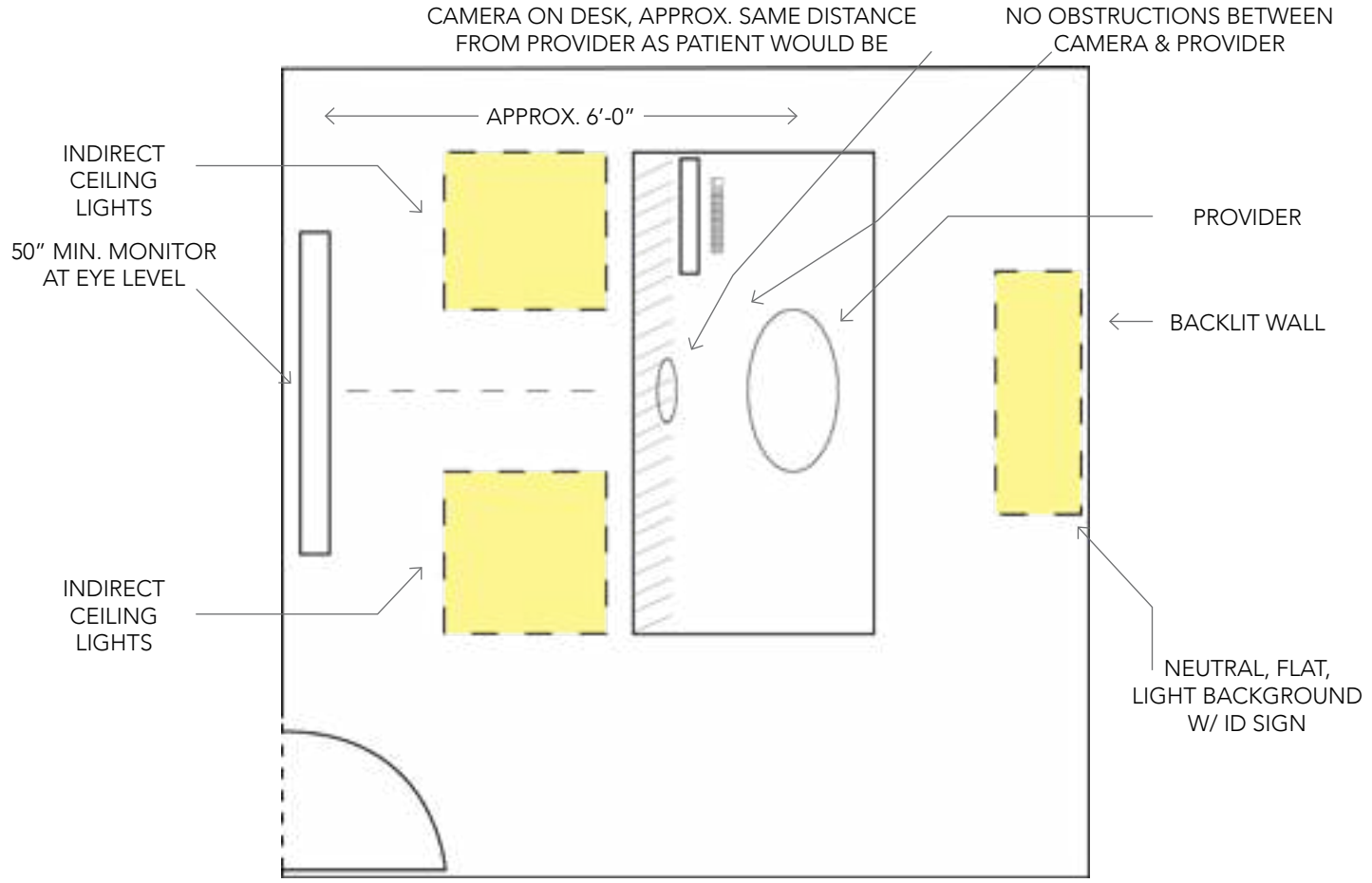
First, will the space be located where provider can easily access without disrupting the daily flow of activities, and still maintain a sufficient level of privacy and focus? If such a space is being retrofit in an existing clinic, a separate consultation space may be more suitable than an exam room or doctor's private office, if located in an area less prone to distractions.

Once space is identified, controllable lighting and acoustic quality need to enable the patient to communicate without distractions or concerns over confidentiality. The background should be a neutral, non-glossy color with minimal visual clutter. The camera should be positioned at eye level to encourage personal interaction. Providing multiple monitors can enhance viewing the patient as well as their medical history simultaneously.

The technology for virtual meeting platforms is evolving quickly, and so infrastructure must be designed for flexibility. Patients may be using an app on their phone or other portable device, and bandwidth limitations should be considered so that calls are not lost in the middle of the visit. Patient confidentiality also means concerns regarding cybersecurity must be addressed. Since the healthcare professional may be someone other than the patient's normal provider, they should be identified either with legible signage or embedded identification in the visual field. This may be a requirement for reimbursement as well.

ROOM CONFIGURATION

DEDICATED TYPICAL ROOM LAYOUT FOR TELEMEDICINE CARE DELIVERY, ADAPTED FROM A PRIVATE OFFICE OR CONSULT ROOM



CONCLUSION

Although the arrival of telemedicine has been anticipated for several years now, the experiences during COVID-19 may encourage patients to embrace virtual care permanently. While still evolving, it can never fully replace the traditional care model. The ability to address minor or ongoing care issues remotely will allow providers to focus their efforts and identify moments when more personal in-person intervention is beneficial to the patient.

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ABOUT THE AUTHOR

MICHAEL SCHAEFER AIA, NCARB, CCCA, LEED AP | Healthcare

Michael came to PRA over 25 years ago, and since then worked in various studios but specializes in Healthcare. Michael's passion for creating healthy living environments is incomparable to anyone else. He feels a large responsibility to design spaces that not only assists healthcare providers but comforts the patients and families in need of care. He believes the work he does is highly rewarding when he can create an environment that makes patients and caregivers feel safe, calm, and hopeful. He also enjoys working with all his clients because their knowledge and passion is infectious, which motivates him to always go the extra mile.