Getting Started with Virtual Visits: A Decision Guide
Health Care IT Advisor

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Executive Summary

Driven by new competitive pressures, consumerism, and health care payment reform, many provider organizations are interested in building telemedicine programs that support virtual patient visits of different kinds. Virtual primary care and specialty consults address some of these pressures; asynchronous e-visits improve access and increase provider capacity. Organizations with motivated clinicians may choose to offer primary care visits using their own physicians; vendor providers can provide these services for providers whose clinicians are not ready for this, or as backup for evenings and weekends. Specialty consultations are usually offered by provider organizations’ own physicians. Some specialties will require additional specific data (e.g., CT scans, vital signs etc.); in these cases organizations may choose to develop a hub-and-spoke system, with remote telemedicine sites equipped with digital equipment and trained staff. When developing a telemedicine program organizations should consider how the program will be governed to ensure that decisions about direction, investment, staffing and management reflect organizational strategic priorities.

Introduction

In the last several years, interest in telemedicine has exploded among health care providers, prompted by developments in technology, consumerism, and health care reform. The forces of consumerism and competition in particular are driving interest in direct-to-consumer virtual visits and virtual specialty consults to improve and retain referrals and market share. Many provider organizations have limited experience with the technical and operational requirements for telemedicine and are wrestling with how to begin planning a virtual care program.

This document is designed to aid executives in thinking through the major options for virtual care provision, from business motivations to delivery models, to buy-versus-build decisions, and finally to some of the basic operational decisions that will have to be made when planning implementation.

This guide does not address long-established, specialized telemedicine use cases such as e-intensive care unit (eICU), store-and-forward teleradiology, or telestroke. We focus rather on direct-to-patient virtual care, e-consults, and the emerging asynchronous e-visit model, which are currently receiving the most attention.

The guide has three sections:

- Market Motivators and Telemedicine Delivery Models. First, a discussion of the major strategic motivations for launching a telemedicine program suggests likely models to consider.
- Build, Buy, or Both? Examination of the provider’s goals, operations, and resources suggests whether it makes more sense to build the technical and/or clinical operations platforms, to purchase these from a vendor, or to use a combination of the two.
- Operational Issues. We list some of the detailed operational questions that should be addressed while planning an implementation of the selected model.
Historically, the largest obstacle to widespread telemedicine use has been the lack of reimbursement for services. While this is changing, it remains an obstacle today: Medicare reimburses for only a small subset of rural consult-based telemedicine, and many insurers remain hesitant to reimburse providers for most telemedicine models. State- and federal-level legislation along with shifts in payer understanding will likely lead to better reimbursement models in the future.

Given this seemingly major obstacle, why has there been such an explosion of interest in and adoption of telemedicine in the last few years? Four key drivers include assuming risk, improving access, expanding geographic coverage, and expanding provider capacity. The single largest factors are health care reform—specifically risk assumption by providers—and the consumerism movement as seen, for example, in the proliferation of retail clinics.

When carrying financial risk for patient care, providers are able to realize financial benefits through means other than traditional reimbursement—such as reducing unneeded office and emergency department (ED) visits, improving preventive care, enhancing chronic disease management, and improving cross-continuum care. Virtual visits can effectively support these goals at lower cost than traditional care.

The proliferation of easily accessible alternatives to traditional care, including retail clinics and virtual care sponsored by payers and employers, are additional drivers for provider interest in virtual visits. Provider organizations are rightly concerned that such offerings may erode their market share and book of business if they are not able to offer convenient online access to their clinicians.

A third factor that has always motivated telemedicine adoption is geography. Providers serving large and/or rural or remote regions have for years offered telemedicine services, generally using a hub-and-spoke system (e.g., clinicians at remote “spoke” sites located at provider-owned facilities, equipped with telemedicine technology, consult with “hub”-based clinician experts). This model is seeing an increase in adoption and sophistication as providers look to increase referrals from peripheral markets and effectively serve at-risk patients across their geographies.

A final motivator that is emerging is the desire to expand provider capacity by employing more efficient online visit models, such as asynchronous e-visits (see below).

Four principal virtual care models are applicable to these drivers:

- **Real-time, provider direct-to-patient virtual visits for basic primary care-type conditions, such as upper respiratory infections.** This model can be implemented using the provider organization’s clinicians, or by utilizing a telemedicine vendor’s doctors.

- **Real-time, provider direct-to-patient virtual specialist consultations.** The feasibility of virtual visits varies across specialties according to the relative importance of physical examination and availability of digital examination technologies. Telemedicine vendors can provide the technical infrastructure to support specialist visits, but the specialist physicians are usually those of the provider organization.

- **Real-time virtual specialist consultation via a “hub-and-spoke” setup.** In this model, a patient visits a remote provider facility that is outfitted with telemedicine technology and digital examination devices and staffed by a nurse or medical assistant trained in their use; the specialist located at the central “hub” facility conducts the consultation.
- **Asynchronous e-visits.** In this model, a patient opts in place of a physical visit to instead use an online application that takes him or her through a diagnostic logic tree, arrives at a likely diagnosis, and collects information on patient preferences such as the pharmacy of choice. A clinician receives an alert indicating that the assessment has been submitted, reviews the assessment in a couple of minutes, and signs off; the patient receives the summary of findings and, if appropriate, medication is automatically ordered at his or her pharmacy. This model reduces provider encounter and documentation from 15–20 minutes per patient to less than two minutes. Most providers charge a modest fixed fee per consultation, and some insurers are beginning to reimburse for these visits.

**Matching Strategy with Appropriate Virtual Care Model(s).** The table below maps strategic motives against these virtual care approaches.

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All four virtual visit types have the potential to reduce utilization. Primary care virtual offerings enhance patient access and improve the likelihood of conditions being detected and intervened with earlier. The same is true for one-off specialty consultations and asynchronous visits.

Some organizations engaged in risk bearing are beginning to incorporate virtual visits into chronic care management, reducing the inconvenience and expense of the many clinic visits to which these patients are normally subjected. It is important to develop eligibility and appropriateness criteria, scheduling approach, and documentation methods and standards for these visits to ensure that the continuum of the patient's care is not disrupted.

Because market share defense is primarily concerned with primary care competitors (retail clinics, primary care virtual visits), virtual primary care options are likely the best option.
Geographic considerations can be addressed by multiple methods. Direct-to-patient primary and specialty consults reduce both patient and provider travel time; hub-and-spoke consults still require the patient to travel to a regional health care facility.

Finally, some organizations are experimenting with asynchronous care with a primary goal of expanding effective PCP capacity, as these visits require significantly less provider time than traditional visits.

Build, Buy, or Both?

Unified Each telemedicine model can be implemented by building the necessary technical infrastructure in-house or by purchasing a vendor platform. In addition, providers have the option of using a vendor’s doctors to staff the consults (in the case of primary care), using their own medical staff, or a combination of the two. Providers should address some basic questions as they consider these options. This section will walk you through these questions.

Virtual Visits: Primary Care

Many organizations choose to offer primary care virtual visits using a vendor solution because it is convenient: the vendor provides all needed infrastructure, branded website, clinicians, and clinical workflow as an off-the-shelf package. The service can be launched with minimal integration with existing primary care workflow and visit documentation can be automatically forwarded to the provider’s EMR. However, some organizations may wish to employ their own primary care physicians as part of their model, and/or deploy their own IT infrastructure. Some of the questions and comments to consider if adopting primary care virtual visits are the following:

- Will you be providing virtual care across multiple states? If so, you will likely encounter multistate provider licensing issues if you wish to use your own physicians. Use of a full vendor solution (e.g., using their providers, as well as their infrastructure) obviates this concern; the vendors license their clinicians in multiple states.

- Do you have a group of primary care physicians with the capacity and willingness to cover on-demand virtual visits? A robust, flexible coverage model, combined with a virtual care-enabled EMR (e.g., supports patient-side video; incorporates virtual visits into EMR workflow and documentation), and a motivated primary care physician group would make in-house offering possible. If not, a vendor solution may be more practical.

- Do you have the experience and resources to build or buy and configure the needed IT infrastructure? These include the central telemedicine platform, EMR integration, and clinician-side technology for viewing multiple windows (e.g., patient, digital image). If not, a vendor solution can provide this. A hybrid option (vendor infrastructure; coverage by your physicians) may be attractive if you have a motivated primary care group and flexible coverage model but lack the necessary IT infrastructure.

- Employing your clinicians to provide daytime first-line coverage while using vendor clinicians to provide backup, afterhours, and weekend coverage is another option, if you wish to rely primarily on your own providers but lack the capacity to cover virtual care round the clock.

Virtual Specialty Consults
Most telemedicine vendors do not offer specialist consultations with vendor physicians. From a practical point of view, provider organizations will want to refer to their own specialists as part of a strategy to reduce network leakage, virtual offerings included. Experience at leading-edge organizations shows that in-network virtual specialty consults can be successfully integrated into the care continuum.

Some specialties require data from digital medical equipment (e.g., stethoscopes, ECG, spirometry, ultrasound) to conduct an effective visit. A hub-and-spoke model may work best to support these specialties, with such equipment available at spoke sites. Piloting a model with a single specialty (for example, dermatology is a common candidate) can permit testing of a limited number of model variables at first, followed by a stepwise expansion into other specialties.

Integration of specialty visit documentation into the enterprise EMR is essential to protect the continuity of care between primary and specialty care. Ideally, consultant and referring physicians would be using the same enterprise EMR system; if not, it is important to take care to import specialist documentation into the referring organization’s EMR via interface or other means.

Here are some questions and comments that may assist you in determining whether you are ready to undertake virtual specialty consults and how to prepare to do so:

- Do you have one or more groups of specialists who are interested and motivated to provide virtual care? If not, cultivating such interest is a prerequisite to any such project.
- Are there significant geographic factors (e.g., patient and/or physician travel requirements to service your catchment area) in play? If so, virtual consults are more likely to be popular and well utilized.
- Do you have the operational resources and experience within your organization to build and manage the operational infrastructure (openness to flexible scheduling options; patient portal features and adoption level; office staff capability; other practice-related logistics) to guide patients to virtual consults, and accommodate scheduling, execution, and follow-up?
- Do you possess the technical resources and experience to build and operate the infrastructure to support virtual visits? These include a virtual care application platform (such as made by Vidyo, InTouch Health, VSee, Cisco, and others); EMR integration; webcams; specialized digital medical examination equipment; integration of audio and video channels; and the like.
- If you plan to offer virtual specialty across states, it will be necessary to license practitioners in both their state of practice and the patient’s state of residence, unless otherwise legislated by the states involved.
- Do you currently operate effective in-network referral management structures? If so, you will likely get greater value from in-network virtual consults; if not, virtual consults may be less effective at keeping care within your network.
- Do you have the experience, executive commitment, and resources to invest in, build, and operate a hub-and-spoke model? If not, it may be more difficult to do the more complex virtual consults that require specialty digital equipment. For these specialties, you may be better off starting with single-spoke location pilots to prove an effective use case.

Asynchronous e-Visits
This model can be constructed by a provider organization using the logic structures built into some EMRs or purchased from a third-party vendor. The following comments and questions will help you evaluate the options:

- Do you have a desire to expand your practitioner panel size or overall practice capacity with limited clinician resources? Doing so is a primary benefit of adopting the asynchronous visit model.

- Are your clinicians conducting noticeable care volumes by email correspondence today? If so, you may see a benefit in terms of time and revenue from adopting asynchronous e-visits. On the other hand, it may be tricky to convince patients to move from a “free care” model (email) to a fee-based visit model.

- Algorithm construction, ongoing content management, and clinical documentation for asynchronous visits require significant resources to build and maintain. If building a system in-house, the provider organization must add e-visit content management to their existing EMR content management work.¹

- Does your EMR support (e.g., have capabilities for patient-facing branching logic, pharmacy selection) e-visits? If so, it can facilitate an in-house development if this is desirable.

- Do you have the technical and clinical resources needed to construct evidence-based patient-facing diagnostic algorithms? If not, you should seriously consider the available vendor products.

- Are your physician (or other clinician) practices amenable to the redesign needed to accommodate asynchronous care management? Regardless of your buy-versus-build decision, practice workflow must be managed or redesigned to accommodate e-visit evaluation, resolution, and follow-up by clinicians. If this is lacking, work needs to be done on practice culture and flexibility before moving toward asynchronous e-visits.

Organizational Issues

- If your organization is “starting from scratch” with telemedicine, early governance of pilot projects could be managed using existing resources and clinician champions. But as you commit to developing a full technology-enabled clinical service offering, to remain sustainable your program will require executive support, resources, and governance.

- A solid program needs dedicated administrative and clinical leaders, a dedicated staff and budget, and a governance body consisting of appropriate executive, administrative, and clinical stakeholders to manage planning, investment, and operational decisions. The telemedicine IT infrastructure should be designed and implemented so as to be robust, scalable, and integrated into the overall enterprise IT architecture. Organizations should manage vendor relationships in a consistent and goal-oriented manner.

Action Items

- Weigh carefully the relative importance to your organization of the potential motivations for offering virtual visits (consumerism and competition; population

¹ See Health Care IT Advisory Research Brief, “Managing the Clinical Knowledge Lifecycle” (October 2012).
health management-driven incentives [efficiency, utilization reduction]; geography; provider capacity; and others) before articulating a virtual visit strategy.

• Identify committed executive, clinical, and technology champions before developing your virtual visit strategy.

• Investigate carefully the cultural climate and openness to change of the clinical practices to be involved in your initial telemedicine efforts. Change management is critical to successful telemedicine program development and sustainability.

• Perform a careful inventory of your technical resources and proficiency level before deciding whether to build or purchase the needed infrastructure to support virtual visits.

• When planning for virtual chronic care services, develop eligibility and appropriateness criteria, scheduling approach, and documentation methods and standards for these visits to ensure that the continuum of the patient’s care is not disrupted.

• Determine if you have an opportunity for an early win. Do you have a virtual care option that
  – Is consistent with your overall organizational direction?
  – Addresses a clear gap in access?
  – Serves a strong market?
  – Is served by willing providers?
  – For which you have the needed resources to implement and operate?