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The Convenience Revolution for Treatment of Low-Acuity Conditions

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Approximately fifty million times annually, patients visit physicians for low-acuity conditions such as bronchitis and urinary tract infections.[1] Many more would likely visit their primary care physician if there were shorter appointment delays at primary care offices – such delays will likely worsen with the Affordable Care Act as millions gain insurance and seek primary care.

Until recently, patients' alternatives beyond primary care offices were limited: visit the emergency department or stay home. Now, patients can receive care via a plethora of new options - the internet, a store kiosk, a home nurse, or a grocery store clinic (see Table). These new options' popularity indicates they fill an unmet need. For example, retail clinic visits increased four-fold between 2007 and 2009 and now account for almost 6 million annual visits.[2]

While these options target care that makes up a fraction of the US health care market, their growth challenges many larger health care models. They herald a future in which care is commonly provided using forms of interaction other than traditional face-to-face visits. Instead of one primary care "home" that handles all problems, these convenient care options offer specialization for basic primary care problems. Not-for-profit organizations currently provide much of health care, but many of these new care options are supported by venture capital or large for-profit companies. They might indicate herald a future where for-profit companies increasingly compete in the health care industry.

In this viewpoint, I provide an overview of factors driving their proliferation and the issues that need consideration with the increasing popularity of convenient care options.

Drivers of convenient care growth

Erosion of primary care access and instant care demands

Wait times for primary care appointments can be lengthy and many clinicians, except perhaps for pediatricians, do not offer evening or weekend hours. Even at a primary care office, patients no longer necessarily see their own primary care physician: the majority of acute care visits are provided by covering physicians or at other care sites.[3] A "reasonable" wait time has also changed. A patient wait time of 24-48 hours might be clinically acceptable, but does not resonate with today's US public. The availability of drop-in visits and evening and weekend hours at these convenient care options makes them comparably attractive. Moreover, they provide care at familiar and convenient sites: home, work, or retail stores.

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Lower overhead costs allow for less expensive care

Convenient care options attract those paying out-of-pocket because they provide lower-cost care--their overhead is lower than that of an outpatient clinic. E-visits and phone visits eliminate the need for physical clinics, and stores can offer health care with little-to-no need for additional space. Most convenient care options use nurse practitioners and physician assistants instead of physicians, minimizing labor costs. Attracted by their potential to save money, many health insurers now encourage and cover care by these new convenient care options.

Growth of clinical guidelines and information technology

The emphasis and growth of published clinical guidelines to address acute problems in a consistent algorithmic manner has facilitated the growth of convenient care sites. Kiosks or e-Visits require no direct clinician-patient interaction. Increased use of electronic health records, patient "portals," and e-prescribing allows easier access and interoperable records.

With automation and interoperable medical records, a patient may identify with a certain convenient care *brand*, rather than with a specific physician. Just as a person walks into a Starbucks in Seattle or Boston and expects similar—if not identical—lattes, a patient can walk into TakeCare Clinics in Seattle and Boston and expect similar if not identical care.

A neglected market created entrepreneurial opportunity

Traditional systems often focus on higher revenue areas such as hospitalizations, imaging, and procedures over low-acuity problems. Yet, a substantial market for low-acuity care remains. With 50 million annual visits at approximately $100 each, this potentially represents a $5 billion annual market. Many of the alternative care options have an entrepreneurial and venture capital mentality consistent with internet startups. For example, significant investment for MinuteClinic and TelaDoc came from venture capital.

Issues to address as convenient care options proliferate

The benefits of these new options is largely conceptual as there is little evidence on their effects on public health. The foremost concern is how their care compares to care of traditional clinicians and whether a focus on patient satisfaction—which permeates these convenient care options —might lead to poor quality and overprescribing. To date, there is little evidence to support these concerns,[4–6] however the evidence is limited. While the care is less expensive on a per-visit basis,[7] these new care options could lead to more people seeking care which would increase both utilization and spending. While these convenient care options could improve access they could also decrease continuity of care and increase fragmentation, which is important given the link between continuity and better outcomes. Also, the loss of revenue from treating low-acuity conditions could lead to increased financial pressure on primary care practitioners and EDs.

Future

The future influence of these convenient care options largely depends on two issues. The first regards whether they expand beyond the scope of low-acuity care. In the business model of "disruptive innovations,"[8] new market entries first focus on the less expensive and less attractive aspects of the market (for example, low-acuity conditions), then gradually expand their scope. Signs of this expansion have manifested. Retail clinics have expanded into chronic illness care, some worksite clinics and urgent care centers offer full primary care, and e-Visits can offer specialty consultations.

The second issue is whether convenient care options offer an attractive alternative to existing primary care clinicians. Many health systems have begun to offer their own retail clinics, urgent care centers, or e-Visits. Whether these new efforts are sufficient remains to be seen, but primary care practitioners risk a slow but steady decline in their scope of care if they do not offer a viable alternative to these new convenient care options.

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Table

Convenient Care Options for Simple Conditions

Convenient Care Option	Description of Model	Illustrative Examples	What we know about care option
Urgent Care Clinics	Free-standing clinic staffed typically by MDs along with NPs and PAs Scope of care limited to acute problems including services not typically provided in a primary care office such as x-rays, laboratory tests, stitching lacerations Usually operate with extended hours, weekdays and at least some time during weekends	Larger chains include Nextcare, Doctor's Express, Concentra, FastMed, Physicians Immediate Care, MedExpress	4000–9000 clinics total with 71–160 million visits per year Health plans such as Humana, Blue Cross Blue Shield of North Carolina, and Wellpoint have all purchased urgent care chains
Employer-Based Clinics	Clinic located within worksite staffed either by MDs or NPs Scope of care varies from low-acuity care to full primary care Many have pharmacies	TakeCare clinics Companies with clinics include Pepsi-co, Credit Suisse, Florida Power and Light, Nissan, Qualcomm	An estimated 2200 work-site clinics in the US Approximately 1/3 of companies with 500 or more employees have clinics
Retail clinics	Clinic located in a retail store, staffed by NP or PA Care typically limited to low-acuity care and preventive care though some have begun to provide chronic disease management Provide a menu which lists price for each service	Larger chains include MinuteClinic, TakeCare, LittleClinic, The Clinic at Wal-Mart, TargetClinic Approximately 10% of clinics run by hospitals or physician groups	Approximately 1400 clinics in 39 states and 6 million visits annually Number of visits grew four-fold from 2007 to 2009
Clinic in a Car	NP or MD drives to patient's home or worksite to evaluate and treat patient Care can go beyond low-acuity problems Clinician brings with them necessary tests (e.g. rapid strep) as well as prescription drugs	White Glove Carena	White Glove services available in 4 states and they report half a million enrollees
Phone visits[^]	Patient calls to submit a request and physician calls back (video-chat available) within in an hour Any necessary prescription sent to pharmacy Scope of care limited to short set of conditions Available 24 hours a day/7 days a week	TelaDoc	Each session $10 TelaDoc reports 5 million subscribers and 10,000 visits per month
Live E-Visits	Patient logs onto web portal and communicates in real-time with a physician Doctors can fill prescriptions electronically	American Well, iHealth—Medfusion, TelaDoc	Blue Cross Blue Shield of CA reports 50,000 patients signed up for e-visits A new CPT code has been introduced for e-visits
Asynchronous structured Evisits[^]	Patient logs onto a secure web portal and provides a description of symptoms using a structured question format Information goes to physician or nurse practitioner who reviews information, makes diagnosis, and fills prescription if necessary, usually within several hours	virtuwell, RelayHealth, Large health systems such as Mayo and UPMC	Demonstrated to be cheaper on a per-episode basis compared to in-person visits, but may have higher antibiotic prescribing To date, virtuwell has provided over 40,000 visits, 25,000 physicians have teamed with RelayHealth
Computer Kiosks	Located in waiting rooms for emergency departments and urgent care centers or inside retail stores Patient answers series of questions (sometimes accompanied by videos) and receives a report of results, or patient can use direct link to speak with a clinician live Limited scope of low-acuity problems, others focused on screening	Urinary Tract Infection-Self Care Kiosk at UCSF Med Center NowClinic, Care 4 Station, SoloHealth stations in Wal-Mart	Kiosks designed to manage urinary tract infections can accurately identify women who have an uncomplicated UTI. Can be facilitated by over-the-counter tests. Self-testing for some conditions such as sexually transmitted diseases is as accurate as clinician-obtained samples.

[*] References for statements in this table are available upon request

[^] We recognize that primary care physicians often provide care via the phone and e-mail for free. The key difference is that the convenient care options are charging for this care.

[*] Abbreviations: MD – physician, NP – nurse practitioner, PA – physician assistant, CA – California, strep – streptococcal, CPT – Current Procedural Terminology, UPMC – University of Pittsburgh Medical Center, UTI – Urinary Tract Infection, UCSF – University of California San Francisco