

VIEWPOINT

Prescriptions on Demand

The Growth of Direct-to-Consumer Telemedicine Companies

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Direct-to-consumer (DTC) advertising for medications and other health-related products and services has been a prominent part of the health care landscape in the United States. More recently, DTC drug telemedicine has become increasingly popular as a model of care delivery.¹ Bold orange banners can be seen by commuters who use public transportation about “the erectile dysfunction meds you definitely don’t need, but your ‘friend’ was asking about,” while frequent advertisements on social media celebrate the ease of obtaining prescriptions for acne or contraception. DTC telemedicine companies have attracted large sums of venture capital funding in order to grow rapidly; according to Pitchbook, the company Hims raised \$197 million with a \$1.1 billion valuation since its launch less than 2 years ago. Nurx, a company that prescribes contraception, added prominent board members including Chelsea Clinton to help lead its expansion.²

DTC telemedicine companies are focused on improving convenience within a health care system that many patients find overly complex. An important issue is whether this convenience comes at the cost of

tion directly to the patient’s home. Patients often pay out of pocket for the visit and prescription, although some companies accept public and private insurance to pay for the visit, prescription, or both. Several DTC telemedicine companies, such as Nurx and PRJKT RUBY, offer their visits for free and their revenue comes from the sale of medications.

DTC telemedicine visits have several potential advantages over traditional clinic visits as a more standardized, efficient, convenient, and accessible model of care. Information gathering can often be variable across traditional patient-clinician visits; however, the DTC telemedicine questionnaire can be structured to be both consistent and comprehensive. In addition, gathering most of the history via questionnaire and avoiding patient interaction increases clinician efficiency. A clinician can complete hundreds of these patient “e-visits” per day compared with the fewer than 15 to 20 patient visits per day among primary care physicians in an office setting.⁴

Having a completely online presence decreases the overhead costs of a traditional clinic such as front-office staff and clinic space, which can translate into lower visit or medication costs. For example, Hims sells medications for erectile dysfunction and hair loss at a cost 50% to 80% less than retail costs for these products.⁵ As the companies’ advertisements suggest, pa-

tients also benefit from the convenience of obtaining prescriptions without leaving their home. In addition, these companies may increase access to care for patients in rural areas lacking availability of clinicians, patients without insurance, and patients who feel uncomfortable talking about sensitive health issues, such as erectile dysfunction and contraception, in person.

However, this model raises new concerns. First, these companies are solutions-oriented. As a result, the companies focus their questionnaire on screening for patients who cannot take the medication offered, rather than on finding the best possible treatment for a patient’s medical problem. For example, a patient may meet criteria for prescription of oral contraception, but might not learn about the availability of potentially more appropriate or effective contraceptive solutions such as an intrauterine device. Second, DTC telemedicine companies could also inadvertently medicalize normal conditions as disease states. One company, for instance, advertises off-label use of propranolol for performance anxiety with the following headline on its website: “With cold season always in bloom, loud roommates that keep

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lower-quality patient care. This Viewpoint characterizes potential strengths and weaknesses of the DTC drug telemedicine model.

Currently, these companies typically focus on a limited set of conditions including contraception, erectile dysfunction, hair loss, and performance anxiety (Table). Using a website or smartphone app, a patient initiates the visit by selecting either a probable medical condition or desired prescription; for example, a patient visiting the PRJKT RUBY website begins by selecting a desired brand of oral contraception. The patient next completes a medical questionnaire that will be reviewed by a clinician, who can be a physician, nurse practitioner, or physician assistant. Existing telemedicine companies, such as Teladoc and American Well, have a live virtual visit with a clinician for every patient. However, in the newest DTC telemedicine model, clinicians typically only contact select patients (eg, if a patient has a potential contraindication) after the initial questionnaire by messaging, telephone call, or video call.³ Companies either send the prescription electronically to a local pharmacy or mail the medica-

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Table. Sample of Direct-to-Consumer Telemedicine Companies

Company	Examples of Issues Addressed	Capital Raised (in Millions), \$ ^a	Quotes From Website
Curology	Acne	20.7	"It's easy as uploading a no-makeup selfie, and in just a few days you have a customized cream delivered right to your door."
Hims	Erectile dysfunction, premature ejaculation, hair loss, cold sores, genital herpes, performance anxiety, sleep	197.0	"Thanks to Hims, men now have easier, more affordable access to the prescriptions, products and medical advice they need. Especially about the things they find hard to talk about."
Keeps	Hair loss	23.0	"Doctor-supported, FDA-approved." "Delivered to your door." "Half the cost."
Lemonaid Health	Erectile dysfunction, urinary tract infection, sinus infection, cold sores, smoking cessation, acid reflux, acne, influenza	21.7	"We're an online doctor's office. After a consultation, get medicines delivered by our partner pharmacy or pick them up at a local drug store."
Nurx	Birth control, HIV screening, pre-exposure prophylaxis	41.4	"Get your prescriptions and home testing kits delivered right to your door. No hassle, no big spend. With automatic refills and renewals so you're always covered."
Roman	Erectile dysfunction, premature ejaculation, hair loss, genital herpes, cold sores	91.1	"E.D. meds prescribed online, delivered to your door."
The Pill Club	Birth control	68.1	"We're on a mission to be a trusted healthcare partner for women, empowering them through access, choice, and education."

^a Data collected by Pitchbook (<https://pitchbook.com/media>).

you up, and nerves that come creeping before an important presentation—life can throw you some curveballs.⁶ Companies are trying to increase their consumer base by recruiting new patients who may not have previously looked to treatment for these issues.

Whether these companies provide equivalent care to a traditional in-person visit remains uncertain. Instead of the focus on a singular problem in a DTC telemedicine visit, the traditional primary care visit is often more comprehensive in addressing issues such as preventive services and treatment for chronic illnesses. Moreover, it remains unclear whether companies effectively screen for all possible contraindications with their questionnaire or whether they accurately select conditions amenable to treatment without an in-person physical examination or diagnostic testing. For example, the American Urological Association guidelines state that men with erectile dysfunction require a targeted physical examination. In addition, DTC telemedicine companies may lead to further fragmentation of health care and not all companies offer the option to forward the visit summary to the patient's primary care physician.

While DTC telemedicine clinicians must be licensed in the state in which the patient resides, other regulations of these clinicians and companies is variable across the country. Clinicians are subject to telemedicine policies set by state medical boards, each with different rules regarding what constitutes proper evaluation and treatment of pa-

tients online. Which regulations they are subject to is also unclear, as some DTC telemedicine companies frame their services as platforms to connect clinicians and patients, rather than serving as clinicians or drug distributors themselves. For example, the Food and Drug Administration regulation against marketing off-label drugs has not applied to these companies, and surveillance of approved drugs appears inconsistent given reports of prescriptions mailed to patients without safety warning labels.³ To our knowledge, no study to date has investigated the prevalence of adverse events related to the sale of prescription drugs by DTC drug telemedicine companies.

Currently, the activities of these companies have been limited to a relatively short list of conditions or medications. However, it is clear that the companies want to expand to more complex acute care and disease management; for example, Lemonaid Health has expanded to include laboratory testing. Some companies envision a transformation of their platforms into 1-stop shops for comprehensive care. For example, the Hims founder stated his intention for the company to become a holistic source of health care not only for prescriptions, but also for "information, advice, and comfort."⁷ As DTC telemedicine companies continue to expand, it will be imperative for physicians, other health care professionals, and policy makers to monitor these new treatment options to ensure convenience does not come at the expense of quality.

ARTICLE INFORMATION

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