





a partnership with CVS. It has become the largest retail clinic company with about 500 clinics in twenty-six states.<sup>5</sup> Minute Clinic's major competitor, Take Care Health Systems LLC, has partnered with Walgreens, the nation's largest pharmacy chain, to open more than 340 clinics in thirty cities.<sup>6</sup> In 2006, the Convenient Care Association was created to establish shared quality standards of practice for retail clinics and to foster professional relationships with the medical community.<sup>7</sup>

In-store clinics are typically located in retail stores, pharmacies, supermarkets, and shopping malls, where they generally occupy 200 to 500 square feet of space, with one to two exam rooms equipped with all the necessities of an outpatient health care office. Most of these clinics are open seven days a week for twelve hours on weekdays and eight hours on weekends, a schedule that is much more convenient for patients than that of a traditional physician's office. No appointments are needed, and a typical visit lasts fifteen to thirty minutes because of the limited number of services rendered and the maximal use of technology to provide efficient care.

The table on page 10 shows the typical "menu" at a retail clinic. $^8$ 

These clinics do not treat medical emergencies or chronic conditions, and they refuse to refill prescriptions that require continual use, such as birth control pills or antidepressants. The prices of the services are clearly posted,<sup>1,2</sup> and the average cost of a basic visit is low. Treatment for a sore throat can range from \$35 to \$254, while a tetanus booster ranges from \$15 to \$254.9 Retail clinics initially accepted only cash, but by 2008 approximately eighty-five percent of clinics accepted insurance. Today many major clinics also accept reimbursement from Medicare and Medicaid.<sup>10,11</sup>

Clinic charges are low because they typically rent small spaces and employ nurse practitioners, or sometimes physician assistants, who can proficiently diagnose and treat the most common illnesses found in family practice.<sup>1</sup> Although state laws vary regarding the autonomy of nurse practitioners, most companies require that they operate under the oversight of an on-call physician.<sup>12</sup>

Much of the efficiency of care provided by these store-based clinics is attributable to their use of technology. Most use touch-screen computer terminals similar to airline self check-in kiosks for the check-in process<sup>1,8</sup> and computer software programs to guide the caregivers through various medical protocols that complement the decision-making process; software can be overriden by the caregiver. In addition, many clinic computer systems track each patient's total number of visits for a given complaint. After a predetermined number of visits, the program notifies the provider that the patient needs to seek the care of a physician. Most clinics further use electronic medical records and electronically submit prescriptions to the adjacent retail pharmacy.<sup>1,12</sup>

The rapid emergence of store-based clinics has sparked a



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at the University of Chicago and plan to pursue a career in academic gastroenterology. I would like to thank my parents for teaching me to believe in the beauty of my dream to become a physician (especially my mother, who also instilled in me a passion for writing), and my wife, who steadfastly and enthusiastically supports me in the pursuit of my many interests within the field of medicine.

wide range of responses from the American public, employers, insurance companies, and the medical community. In the Harris Interactive Health Care Poll from 2008, only seven percent of adults reported visiting a store-based clinic, but ninety-three percent of those said they were satisfied with the convenience these clinics provided, and ninety percent said they were satisfied with the quality of care. Both percentages have remained relatively constant over the 2005, 2007, and 2008 surveys. Seventy-eight percent of the 4,937 adults polled agreed that these clinics would provide a quick, convenient way to receive health care (again unchanged over the three years). 13 The 2007 Health Tracking Household Survey showed that seven of eight clinic users cited at least one of three convenience factors (hours, location, and no need for an appointment) as a major reason for visiting a clinic, while one of three cited all three as major reasons.11

Nevertheless, sixty-five percent all respondents expressed concerns about the qualifications of the staff of the clinic, and an equal percentage expressed worry about receiving an accurate diagnosis for a serious medical condition. However, both percentages have trended downwards over the three years from seventy-one percent and seventy-five percent in 2005. This may reflect increasing acceptance.

These subjective concerns are not supported by the current data on the quality of care provided by store-based clinics. In a 2009 paper in the *Annals of Internal Medicine*, Ateev Mehrotra and colleagues found no significant differences in the quality of care provided by retail clinics, physician offices, and urgent care clinics across fourteen quality measures for treatment of otitis media, pharyngitis, and urinary tract infections (all three were slightly superior in quality to emergency departments).<sup>14</sup> A review of the literature reveals many

The Pharos/Autumn 2011

studies demonstrating that the quality of care provided by nurse practitioners for basic medical treatment is equivalent to that of physicians. Finally, from the patient point of view, of the 313 respondents who visited a clinic in 2008 eighty-eight percent agreed with the statement that their providers were qualified.<sup>13</sup>

Some companies have reported savings of \$100,000 or more per year when employees use store-based clinics, leading several employers—including Target, General Mills, and Bank of America—to encourage their employees to use these clinics for the treatment of minor illnesses. Because these clinics are dramatically cheaper for identical services than traditional clinics for insurance companies, some insurers use the incentive of reduced or no copayments for visits to a store-based clinic to encourage patients to use them instead. Mehrotra and coworkers found that the overall cost of care in retail clinics for otitis media, pharyngitis, or urinary tract infection was significantly lower than in physician offices, urgent care clinics, and emergency departments (\$110 versus \$166, \$156, \$570). Versus \$166, \$156, \$570).

The reactions of physicians and physician organizations to retail-based clinics have ranged from acceptance to intense opposition. The American Academy of Pediatrics (AAP) recently issued a policy statement declaring its opposition to store-based clinics being used to care for infants, children, and adolescents. It is concerned about the following: increased fragmentation of care; the use of episodic care to treat children with special needs and chronic diseases; lack of access to and maintenance of complete health records; potential public health crises as patients with contagious diseases wait in commercial, retail environments; and fewer opportunities for pediatricians to treat minor illnesses, which often affords them the chance to strengthen their relationship with the child and family. Most importantly, the AAP states that these clinics are not committed to the medical home model, which is characterized by the provision of accessible, family-centered, comprehensive, continuous, and coordinated care.15

Believing that it is more practical to guide the evolution of such clinics than to prevent their use, the American Academy of Family Physicians (AAFP) released a list of attributes it feels are essential for patients to receive continuous, coordinated care. They feel that retail clinics should possess a well-defined and limited scope of medical services; that these services be evidence-based; that nurse practitioners work in tandem with the patient's physician to ensure continuity of care; that the clinic have a referral system for cases that surpass its scope of services; and that the clinic utilize electronic medical health records to both communicate patient information and facilitate continuity of care. <sup>16</sup>

In a similar vein, the American Medical Association created eight principles to guide the operation of store-based clinics. These criteria are very similar to those of the AAFP,

but include a call to establish appropriate sanitation/hygienic guidelines and to clearly inform patients about the qualifications and limitations of the clinic.<sup>7,12</sup> A review of the general characteristics of the store-based clinics (as described above) demonstrates that they have adhered to the recommendations from the AAFP and the AMA.

Many individual physicians report feeling threatened by the potential, unwanted effects of retail clinics on their practices, including a loss in the variety of medical cases encountered, fragmentation of relationships with patients, lost opportunities for preventive care, and a drop in revenue. Yet there are no data to uphold these fears. Mehrotra and colleagues report that just ten simple clinical issues—including upper respiratory infections, urinary tract infections, sinusitis, and immunizations—constitute more than ninety percent of all retail clinic visits, whereas these same ten issues only comprise thirteen percent of adult primary care visits, thirty percent of pediatric primary care visits, and twelve percent of emergency department visits.<sup>17</sup> It therefore seems unlikely that these clinics lead to a loss in the variety of cases. Instead, these clinics may alleviate the ever-increasing demands on the health care system.

The profile of the majority of patients using retail clinics is similar to those who visit emergency rooms-young adults age eighteen to forty-four who pay out of pocket for their care and do not have a primary care physician. Three out of five patients visiting store-based clinics did not report having a primary care doctor so that in most cases no relationship was disrupted. Preventive care was administered at only eleven percent of primary care visits for the ten simple clinical issues addressed at ninety percent of retail clinics. Thus, instead of thwarting preventive care, these clinics could actually serve to strengthen it by increasing the convenience of getting immunizations.<sup>17</sup> It can also be argued that visits for simple, acute issues lost to retail clinics will be replaced by visits for more complex issues that are reimbursed at a higher rate, resulting in no dramatic change in revenue. The financial impact of clinics should be studied more thoroughly.

Many physicians and hospital systems are taking an "if you can't beat them, join them" approach to the upsurge in retail clinics. <sup>18</sup> Institutions such as the Mayo Clinic and Sutter Health have opened "satellite care centers" in retail settings. As of 2008 twenty-six of forty-two (sixty-two percent) clinic operators were hospitals or physician groups owning twelve percent of total retail clinics in the United States. In that year Walmart, in partnership with local hospital chains, began to co-brand retail clinics in its stores, and Cleveland Clinic began planning a partnership with Minute Clinic to open nine retail clinics with integration of their electronic medical records. <sup>9</sup> At the same time, some traditional practices have begun to offer extended clinic hours or "open access/advanced access" scheduling, in which a portion of the physician's schedule is open for same-day appointments. <sup>18</sup>

The Pharos/Autumn 2011

Retail clinics, in keeping with their complementary business model, have implemented many systems aimed at maintaining continuity of care with a patient's primary care physician. They provide summaries of each clinic visit that include a listing of the laboratory results, services rendered, and prescriptions administered that can then be accessed through the clinics' electronic medical records, facsimile, or printed copy. Research exploring the effectiveness of this communication is still needed. Patients presenting with conditions beyond the scope of practice of the clinic are referred to their primary care physicians, or to an office or hospital that is part of the retail clinic's network of established relationships that will treat the patients whether they have insurance or not.1 Take Care Clinic, for example, states that twenty percent of its Chicago-land patients have been referred to a primary care physician or specialist for follow-up care.<sup>3</sup>

Clinic operators and the media herald the emergence of retail clinics as an effective solution to health care disparities that provide high quality care for the uninsured, underinsured, and populations with difficulty accessing health care resources. This claim is supported by data from the 2007 Health Tracking Household Survey, which revealed that twenty-seven percent of retail clinic patients were members of uninsured families and that families with any member uninsured were more likely to use retail clinics than insured families. Hispanic consumers and families with no usual source of medical care were also more likely to use retail clinics than their respective counterparts. The likelihood of citing cost concern or the lack of a usual source of care was much higher among uninsured and minority clinic users than with their insured and white counterparts.

To truly combat disparities clinics must be located in areas accessible to underserved populations. Unfortunately, a study by Craig Evan Pollack and Katrina Armstrong found that retail clinics are more likely to be located in census tracts characterized by higher resident income, lower numbers of black residents, and lower rates of poverty, and that they are less likely to be located in medically underserved neighborhoods.<sup>19</sup>

Store-based clinics fill a need for change in the American health care system and attempt to offer cost-effective, high quality, and timely care to patients who are frustrated with America's rising health care costs and lack of access to care. Such clinics are likely to grow to become a more critical element of the delivery of medical services in the United States. Much research is needed to further understand the delivery of care at retail clinics, and the leaders of these clinics should remain committed to a business model that complements primary care physicians and expands services to underserved areas of the United States.

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The Pharos/Autumn 2011