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A Comparison of Patient Visits to Retail Clinics, Primary Care Physicians, and Emergency Departments

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Abstract

In this study we compared the demographics and reason for visits in national samples of visits to retail clinics, primary care physicians (PCPs), and emergency departments (EDs). We find that retail clinics appear to be serving a patient population underserved by PCPs. Just 10 clinical issues such as sinusitis and immunizations encompass more than 90% of retail clinic visits. These same 10 clinical issues make up 13% of adult PCP visits, 30% of pediatric PCP visits, and 12% of ED visits. Whether there will be a shift of care from EDs or PCPs to retail clinics in the future is unknown.

Retail clinics provide a new model for ambulatory care for minor health care problems that emphasizes patient convenience. These clinics are typically located in retail stores such as Target, CVS, Walgreens, Wal-Mart, and grocery chains and provide basic medical care without an appointment and with short wait times.¹ They differ from urgent care clinics because they are located within stores, almost exclusively use nurse practitioners or physician assistants to provide care, and offer a limited scope of care.² Although most retail clinic visits were initially paid for out-of-pocket, more recently health insurers including Medicare and Medicaid are paying for these visits.³ Large retail chains such as CVS, Walgreens, and Wal-Mart are opening new clinics in many of their stores, and it is estimated that the number of clinics will grow from approximately 450 to almost 6000 in the next five years.⁴ Recent polls indicate that 15% of children and 19% of adults are very likely or likely to use a retail clinic in the near future.⁵

Since the first clinics opened in the US in 2000, retail clinics have been the subject of considerable controversy. US physician organizations, such as the American Medical Association, the American Academy of Family Physicians (AAFP), and the American Academy of Pediatrics (AAP), have raised concerns about whether health professionals operating at these sites make accurate diagnoses and appropriate triage decisions, and whether retail clinics potentially disrupt existing physician-patient relationships.^{6, 7}

Despite this controversy, there have been few empirical studies of retail clinics and no one has systematically described the characteristics of patients who visit retail clinics and the most common medical issues these patients seek to address. We sought to begin filling this gap by addressing two questions: (1) What are the demographic characteristics of patients who visit retail clinics as compared with patients who visit primary care physicians (PCPs) or emergency departments (EDs)? and (2) What are the reasons patients visit retail clinics as compared with reasons for using PCPs and EDs? The answers to these questions provide a useful framework for future evaluations of the quality and costs of retail clinics.

Methods

We conducted a cross-sectional comparison of retail clinic visits, PCP, and ED visits using separate data sources for each care setting.

Data Sources

Visits to Retail Clinics—We invited the leadership of all retail clinic companies that are members of the Convenient Care Association, a national organization of retail clinic companies, or that were listed in a publication about the retail clinic industry to participate in the study.¹⁰ We requested that participating companies provide de-identified data on each visit that occurred from the inception of operations through the summer of 2007. The companies received no incentive to provide the data nor was the study funded by a retail clinic company. We did not collect original data, but rather obtained data elements that were routinely collected by retail clinic companies for billing and tracking purposes. These data elements included: gender, age in years, method of payment for the visit, whether the patient had a PCP, the reason for visit or diagnosis, and whether the patient was triaged to an ED or physician office after being registered and evaluated. Not all retail clinic companies could provide data on all requested data elements. For example, few companies collected data on whether patients were triaged to an ED or physician office. We excluded visits with missing data from the relevant analyses and note when greater than 5% of visits are missing the variable of interest.

Reasons for visit were tracked by retail clinic companies using different systems. We mapped the disparate methods into a uniform system to facilitate analysis. When the retail clinic companies reported ICD-9 diagnosis codes, we classified the visits into the following categories: upper respiratory infection (460, 465), sinusitis (461,473), bronchitis (490, 466), otitis media (381, 382), otitis externa (380), pharyngitis (462, 463, 034), conjunctivitis (372), urinary tract infection (599, 595), immunization (V03–V06), screening blood pressure check or lab test (V73–V82), or other preventive visit (V01, V70, V72, V29–39). When the retail clinics provided only text descriptions of the diagnoses, one of the authors (AM) coded them into these same categories. Three retail clinic providers, representing 11% of visits in our sample, tracked presenting symptoms (e.g., burning with urination), rather than diagnosis (e.g., urinary tract infection). One of the authors (AM) classified these visits into likely diagnoses. For example, “burning eyes/eye matting/red eyes” was classified as conjunctivitis and “coughing/sneezing/sinus pressure” was classified into “upper respiratory infection, sinusitis, and bronchitis”. We aggregated “upper respiratory infection, sinusitis, and bronchitis” and “otitis media and otitis externa” each into single categories because it is difficult to distinguish the diagnosis just based on symptoms. One retail clinic company, representing less than 1% of visits, did not classify the specific reason for acute visits and another company, representing 10% of visits, did not classify the specific reason for preventive visits. In total 7.2% of all retail clinic visits did not have a reason for visit or diagnosis code.

Ambulatory Visits to Primary Care Physicians and Emergency Departments—We obtained 2002–2005 data on ambulatory visits to PCPs from the National Ambulatory

Medical Care Survey (NAMCS) and 2002–2005 data on visits to EDs from the National Hospital Ambulatory Medical Care Survey (NHAMCS), the most recent years for which data are available.¹¹ In both surveys, each sampled patient visit was weighted by the inverse probability of its selection (i.e., the number of visits in the population that the sampled visit was taken to represent). Using these weights, data from NAMCS and NHAMCS can be extrapolated to nationally representative universe of visits to community-based office-based physicians (NAMCS)¹² or EDs (NHAMCS).¹³ Missing data are imputed and weights are adjusted for non-respondents and missing data by the National Center for Health Statistics. In both NAMCS and NHAMCS surveys standard one-page encounter forms were completed by the physician, office or hospital staff, or an outside coder using the medical chart or some combination of these respondents. We restricted our analyses of NAMCS survey data to PCP visits as defined by the specialties of family/general practice, internal medicine, or pediatrics. Specialty is self-reported by the physician. We examined data on demographic characteristics of patients, method of payment, length of visit, reasons for visit,¹⁴ diagnoses, and delivery of preventive care. We pooled the most recent available four years of surveys to provide stable estimates. From 2002 to 2005 the participation rate of physicians sampled for NAMCS ranged from 61.5% to 70.4%, and the participation rate in NHAMCS by sampled hospitals ranged from 69.3% to 89.6%.

Method of payment at the time of visit for PCP and ED visits was classified into insurance (Medicare, Medicaid, private insurance, Workers Compensation) or out-of-pocket (any other classification). Reasons for visit were classified based on ICD-9 diagnosis codes for the “Primary Diagnosis” (both surveys report up to three diagnosis codes) using the coding scheme described above.

Some have raised concerns that if patients visit retail clinics instead of PCP offices then this will decrease the opportunities for PCPs to manage chronic illnesses and provide preventive care. To assess this potential impact, we identified PCP visits in which patients had one or more of seven common chronic conditions listed as one of the three diagnoses on their record, including asthma (493.0–493.9), cerebrovascular disease (430.0–437.9), diabetes mellitus (250.0–250.9), hypertension (401.0–405.9), ischemic heart disease (410.0–414.9), chronic obstructive pulmonary disease (492.0–492.9 and 496.0–496.9), and depression (296.0–296.9, 309.0–309.9, and 311.0–311.9). We determined whether one or more of eight preventive or counseling services (mammograms, prostate-specific antigen testing, Pap testing, cholesterol testing, smoking cessation counseling, weight loss counseling, exercise counseling, nutrition counseling) were ordered or performed at the visit. These eight services are listed on encounter forms used by NAMCS.

Analyses

The patient visit was the unit of analysis. All analyses were conducted in SAS version 9.1 (SAS Institute, Inc, Cary, NC). Analyses on the NAMCS and NHAMCS surveys were performed using SAS survey procedures to account for the complex sampling design. We analyzed pediatric (<18 years of age) and adult visits both separately and together. We report two-sided P values with a significance level of 0.05 for all statistical tests and report 95% confidence intervals. In comparing differences in proportions between retail clinics and PCP offices we used a z approximation utilizing the standard error estimates from the SAS survey procedures and report p-values using a Bonferroni correction for multiple comparisons.¹⁵ We note when, due to missing data, analyses are based on a subset of retail clinics companies.

Results

Participating Retail Clinic Companies

We recruited retail clinic companies and obtained de-identified visit-level data on all visits between 2000 and 2007 from eight of 24 (33%) known retail clinic companies (Table 1). Altogether, clinics operated by these eight retail clinic companies accounted for 74% (326 of 441) of the clinics in operation as of July 1, 2007. Participating retail clinic companies operated on average 40.8 clinics compared to 7.2 clinics among non-participating companies. The participating retail clinic companies provided data on 1.35 million visits. The NAMCS survey data included 35,814 visits which were representative of an estimated 483.47 (95% CI 438.73–528.22) million visits to PCPs per year and the NHAMCS data included 147,784 visits which were representative of an estimated 112.40 (95% CI 102.08–122.72) million visits to EDs per year.

Comparison of Patient Demographics and Visit Characteristics

Gender distribution for retail clinic visits, PCP, and ED visits was similar overall (62.8%, 55.5%, and 54.0% female, respectively) although statistically different ($p < 0.001$ for both comparisons with retail clinics). [Table 2] Almost twice as many visits to retail clinics were for patients 18–44 years old as compared to PCP visits (43.0% vs. 22.7%, $p < 0.001$). Visits to retail clinics were less likely to be from patients in the youngest (<2 yo) or oldest age groups (>65 yo) (7.7% vs. 30.5% PCP visits, 25.3% ED visits, $p < 0.001$ for both comparisons). Visits to retail clinics were also more likely than PCP visits to be paid for out-of-pocket (32.9% vs. 9.5% respectively, $p < 0.001$). However, this trend has markedly changed over time; the percentage of retail clinic visits paid for out-of-pocket fell from 100% in 2000 to 15.9% in 2007.

We had information on whether the patient had a PCP for 88.1% of the retail clinic visits. Patients reported having a primary care provider for 38.7% of these visits. Nationally, about 80.7% of adults and children report having a particular doctor's office or other location to go to if they are sick or need medical advice.¹⁶

Patients were triaged to an ED or a physician's office during 2.3% of visits to retail clinics (data available for 87.8% of our retail clinic visit sample). The reason for triage was not systematically coded but our review of typed notes found that the most common reason was that the patient's presenting problem was outside the protocols utilized. Our data only include triage decisions that were made after registration and evaluation. We did not have data on how many patients did not register for a visit because they were told their presenting symptom was not appropriate for the retail clinic.

Comparison of Reasons for Visit

The majority of retail clinic visits were for simple acute conditions and preventive care: upper respiratory infections, sinusitis, and bronchitis (27.4% of all visits), pharyngitis (21.2%), immunizations (19.7%), otitis media and otitis externa (12.7%), conjunctivitis (4.6%), urinary tract infections (3.5%), and screening lab test or blood pressure check (1.3%). [Table 3] Together, these 10 clinical issues encompassed 90.3% of all care at retail clinics. We conducted sensitivity analyses excluding those retail clinic companies that provided presenting symptoms (not diagnoses) and this did not substantively change our results. Among patients 65 years and older, 73.6% of the retail clinic visits were for immunizations.

The 10 clinical issues commonly addressed at retail clinics account for an estimated 87.66 million visits to PCPs (18.1% of all PCP visits) and 13.53 million visits to EDs (12.0% of all ED visits). [Table 3] The mean duration of these visits at PCP offices was 14.0 vs. 18.2 minutes

for visits to PCPs for other reasons and the mean duration of these visits to EDs was 142.8 minutes.

Some have raised concern that if patients visit retail clinics instead of PCP offices this will decrease the opportunities for PCPs to manage chronic illnesses and provide preventive care. Among the 85.76 million visits to PCPs for reasons that are commonly cared for at retail clinics, in 8.0% the patients had one of seven common chronic medical illnesses (asthma, hypertension, diabetes, chronic obstructive pulmonary disease, congestive heart failure, depression) and in 11.3% the physician provided or ordered any of eight preventive care services (mammograms, prostate-specific antigen testing, Pap testing, cholesterol testing, smoking cessation counseling, weight loss counseling, exercise counseling, and nutrition counseling).

Discussion

Patients who are using retail clinics differ from those being seen by PCPs. Retail clinic patients are more likely to be young adults (18–44) who pay out-of-pocket for their care, and who are less likely to have a PCP. The profile of visits to retail clinics is more similar to patients who visit EDs. If retail clinics were not available, it is unclear whether these patients would have gone to a PCP office, urgent care clinic, or ED or if they would have sought medical care at all.¹⁷ It is possible that retail clinics could serve as a safety net provider for some patients who currently seek care in EDs. If retail clinics are serving patients who would not have sought care at all, there is the potential for retail clinics to increase overall health care costs. Future studies should examine which, if any, alternative sources of care users of retail clinics considered and why they chose to seek care from the retail clinic.

The scope of care at retail clinics is focused on a small set of clinical issues including upper respiratory infections, sinusitis, pharyngitis, immunizations and conjunctivitis. Just 10 clinical issues encompass more than 90% of all retail clinic visits. In contrast, these same 10 clinical issues encompass 13% of adult PCP visits, 30% of pediatric PCP visits, and 12% of ED visits. Patients may consider these problems to be straightforward and value convenience more than they value seeing a particular provider. Retail clinics might be particularly attractive because it is often difficult to obtain a timely PCP appointment¹⁸ and EDs have long waiting times.¹⁹

In addition to providing care for acute health problems, retail clinics provide preventive services, primarily immunizations. Immunization rates for US adults continue to be low. As of 2007, 69% of adults 65 and older and 17% of adults 18–49 had received an influenza vaccine in the previous year²⁰ and another study found that just 64% of elderly persons had been offered a pneumococcal vaccine.²¹ To the extent that convenience is a factor, retail clinics may offer a new venue to increase immunization rates.²²

Some have raised the concern that retail clinics may disrupt primary care relationships. We found that three-fifths of patients did not report having a PCP, so for these patients there is no relationship to disrupt. Some argue, however, that urgent care appointments with a PCP enable patients to establish such a relationship as well as provide an opportunity to deliver preventive care.²³ We found that in 11% of similar visits to PCPs there was some preventive care ordered or delivered. Future studies should assess whether retail clinics adversely impact receipt of preventive care.

A related issue is coordination of care and the concern that retail clinics could exacerbate the already significant problems in communication across care settings.²⁴ Currently most independent retail clinic providers can provide patients with a printed visit summary from their electronic medical records or the clinic can fax the record to a physician on patient request.²⁵ However, we do not know how often this occurs and whether the pattern of communication is better or worse than what is seen between other care providers.²⁶

Most of the conditions generally cared for in retail clinics likely do not require the level of training of a physician. For some conditions, such as urinary tract infections, computer kiosks have been used to diagnose and treat patients.²⁷ The shortage of physicians, in particular PCPs²⁸ and the stress on EDs suggest that retail clinics could relieve some of the demand on both of these care settings.

Yet some worry that if such a shift of care occurs it could potentially hurt PCPs financially.²⁹ We found that visits to PCP offices for the ten issues most commonly seen in retail clinics (e.g. immunizations, otitis media, pharyngitis) are on average almost 25% shorter than other types of visits. Therefore, if there is a shift in care, PCPs will be forced to schedule fewer visits per hour. Furthermore, simple acute visits, as opposed to visits for chronic disease management, are less likely to generate unreimbursed care outside of the visit.³⁰ Therefore it is possible that a shift in care could hurt PCPs financially. On the other hand if PCPs replace these lost visits for these simple acute reasons with visits for more complex issues that are reimbursed at a higher rate, than the impact could be minimal. The financial impact of retail clinics on PCPs should be addressed in future research.

There are some important limitations of our findings. Although our analyses included the majority of retail clinics, we do not know whether our results are generalizable to other retail clinic companies. Given the expected rapid growth among retail clinics, we also do not know whether the patterns of utilization we observed will remain stable over time. We found no major time trends in patient demographics. As the sector expands, ongoing descriptive studies will be necessary to evaluate trends.

We found that 67% of retail clinic visits and 90% of PCP visits were paid for via insurance. We do not have a direct measure of insurance status of patients and relied on the method of payment as a proxy. Furthermore, because some retail clinic companies provided patient symptoms instead of a diagnosis, our estimates of the number of visits for some diagnoses such as otitis media might be high. We were not able to validate the coding of reason for visits by retail clinic providers, but we have no reason to believe that it is systematically biased. Lastly, our estimates on the frequency of diagnoses at retail clinics could be biased if nurse practitioners, the usual providers at retail clinics, systematically misdiagnosed conditions. But this seems unlikely as previous research has found comparable quality of care between nurse practitioners and physicians.³¹

The number of retail clinics in the US is increasing rapidly. Recent polls indicate that 15% of children and 19% of adults are very likely or likely to use a retail clinic in the future³² and one report estimates that by 2011 there will be 6000 retail clinics in the U.S. providing over 50 million visits per year.³³ Retail clinics appear to be providing care to a patient population less likely to use PCPs and their focus is on a limited scope of reasons for which patients might prefer convenience over a relationship with a particular provider. To what extent the growth in retail clinics will lead to a shift of care from EDs or PCP offices to retail clinics or the disruption of primary care relationships is unknown.

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Table 1

Participating Retail Clinic Companies in Project

Retail Clinic Company (location of clinics)	States in Which Clinics are Currently Operating	Clinics as of July 1, 2007	First Clinic Opened
SmartCare (Wal-Mart)	CO	15	2006
Lindora Health Clinics (Rite-Aid)	CA	1	2006
Sutter Express (Rite-Aid)	CA	6	2007
MedPoint Express (Wal-Mart, Martins Grocery Stores)	IN	8	2005
MinuteClinic (CVS, Cub Foods, QFC Grocery Stores)	AZ, CA, CT, FL, GA, IN, IL, KS, MD, MI, MN, MO, NC, NJ, NV, NY, OH, OK, PA, TN, TX, VA, WA	196	2000
Redi-Clinic (H-E-B Grocery Stores, Wal-Mart)	AR, OK, VA, TX	47	2005
Take-Care Health Clinics (Walgreens)	AZ, FL, GA, IL, KS, OH, MO, NV, OR, PA, TN, TX	50	2005
WellnessExpress Clinic (Longs Drugs)	CA	3	2005 [#]

[#]Three clinics closed in December 2006 and therefore none were open as of July 1, 2007. Analyses based on data obtained by authors from retail clinic companies

Table 2
 Characteristics of Patient Visits to Retail Clinic and Primary Care Physician Offices

	Retail Clinic Visits			Primary Care Physician Visits			Emergency Department Visits		
	All Patients	Children	Adults	All Patients	Children	Adults	All Patients	Children	Adults
Visits									
Number in millions*	1.35	0.36	0.97	483.47	144.37	339.10	112.40	28.23	84.17
		% (SE)			% (SE)			% (SE)	
Gender									
Male	37.2 (0.04)	47.3 (0.1)	33.5 (0.05)	44.5 (0.5)	52.5 (0.6)	41.1 (0.6)	46.0 (0.2)	52.7 (0.3)	43.8 (0.3)
Female	62.8 (0.04)	52.7 (0.1)	66.5 (0.05)	55.5 (0.5)	47.5 (0.6)	58.9 (0.6)	54.0 (0.2)	47.3 (0.3)	56.2 (0.3)
Age (years)									
<2	0.2 (0.004)	0.8 (0.02)		9.0 (0.4)	30.2 (0.7)		6.4 (0.3)	25.3 (0.5)	
2-5	6.3 (0.02)	23.5 (0.1)	N.A.	7.3 (0.3)	24.4 (0.5)	N.A.	6.3 (0.2)	25.1 (0.4)	N.A.
6-17	20.3 (0.04)	75.7 (0.1)		13.5 (0.5)	45.3 (0.8)		12.4 (0.2)	49.5 (0.7)	
18-44	43.0 (0.05)		58.8 (0.1)	22.7 (0.6)		32.3 (0.7)	41.3 (0.4)		55.1 (0.4)
45-64	22.6 (0.04)	N.A.	31.0 (0.05)	26.0 (0.5)	N.A.	37.0 (0.5)	18.8 (0.2)	N.A.	25.1 (0.2)
>65	7.5 (0.03)		10.3 (0.03)	21.5 (0.7)		30.7 (0.9)	14.8 (0.3)		19.7 (0.3)
Primary source of payment for visit									
Out-of-pocket	32.9 (0.04)	29.5 (0.1)	34.0 (0.1)	9.9 (0.5)	8.1 (0.6)	10.7 (0.6)	24.6 (0.5)	18.0 (0.7)	26.8 (0.6)
Insurance (any)	67.1 (0.04)	70.5 (0.1)	66.7 (0.1)	90.1 (0.5)	91.9 (0.6)	89.3 (0.6)	75.4 (0.5)	82.0 (0.7)	73.2 (0.6)
Patients reporting having a primary care provider									
Yes	38.7 (0.04)	52.9 (0.1)	33.3 (0.05)		N.A.			N.A.	
No	61.3 (0.04)	47.1 (0.1)	66.7 (0.05)						
Triage decision by provider to refer to emergency room or physician office [^]									
No	97.7 (0.01)	97.9 (0.03)	97.6 (0.02)						
Yes	2.3 (0.01)	2.1 (0.03)	2.4 (0.02)		N.A.			N.A.	

* Number of visits to retail clinics since they opened. Number of estimated annual visits to primary care physicians and emergency departments from 2002-2005 based on sampling weights.

[^] Not reported for primary care physician visits, because no equivalent question in NAMCS surveys

Analyses of claims data obtained from retail clinic companies and survey data from the National Ambulatory Medical Care Survey and the National Hospital Ambulatory Care Survey

Table 3
Reason for Visits at Retail Clinics and Primary Care Physician Offices

	Retail Clinic Visits			Primary Care Physician Visits			Emergency Department Visits		
	All Patients	Children	Adults	All Patients	Children	Adults	All Patients	Children	Adults
<i>Total visits (millions)</i> *	1.25	0.34	0.89	483.47	144.37	339.10	112.40	28.23	84.17
<i>Reason for visit</i> #	% (SE)			% (SE)			% (SE)		
<i>Upper respiratory infection, sinusitis or bronchitis</i>	27.4 (0.04)	16.3 (0.07)	31.6 (0.1)	9.7 (0.3)	14.2 (0.5)	7.8 (0.4)	5.0 (0.1)	9.6 (0.3)	3.4 (0.1)
<i>Pharyngitis</i>	21.2 (0.04)	35.1 (0.08)	16.3 (0.04)	1.9 (0.1)	3.9 (0.3)	1.1 (0.1)	1.6 (0.1)	2.9 (0.2)	1.1 (0.1)
<i>Immunizations</i>	19.7 (0.04)	9.4 (0.05)	24.0 (0.05)	0.6 (0.1)	0.8 (0.2)	0.6 (0.1)	0.04 (0.007)	N.A.**	0.04 (0.008)
<i>Otitis media or otitis externa</i>	12.7 (0.03)	26.1 (0.08)	7.7 (0.03)	3.1 (0.1)	7.5 (0.3)	1.2 (0.1)	2.5 (0.1)	7.4 (0.2)	0.8 (0.04)
<i>Conjunctivitis</i>	4.6 (0.02)	6.0 (0.04)	4.1 (0.02)	0.6 (0.1)	1.2 (0.1)	0.3 (0.03)	0.6 (0.03)	1.1 (0.07)	0.5 (0.03)
<i>Urinary tract infection</i>	3.5 (0.02)	0.4 (0.01)	4.7 (0.02)	1.2 (0.1)	0.6 (0.08)	1.5 (0.1)	1.9 (0.1)	1.1 (0.1)	2.1 (0.1)
<i>Screening lab test or blood pressure check</i>	1.3 (0.01)	0.1 (0.005)	1.5 (0.01)	0.3 (0.04)	N.A.**	0.4 (0.1)	0.1 (0.01)	N.A.**	0.07 (0.01)
<i>Other preventive care</i> ~	0.8 (0.008)	0.8 (0.02)	0.3 (0.006)	11.4 (0.4)	25.2 (0.8)	5.5 (0.3)	0.4 (0.04)	0.5 (0.05)	0.4 (0.05)
<i>Other care not included in above categories</i>	8.9 (0.03)	5.8 (0.04)	9.7 (0.03)	70.5 (0.6)	44.7 (0.8)	81.5 (0.6)	87.5 (0.3)	76.2 (0.6)	91.3 (0.2)
<i>Total, ten most common reasons for visits to retail clinics</i> ^	90.3 (0.03)	93.4 (0.04)	90.0 (0.03)	18.1 (0.5)	30.1 (0.8)	13.0 (0.5)	12.0 (0.3)	23.2 (0.6)	8.3 (0.2)

* Number of visits to retail clinics since they opened. Number of estimated annual visits to primary care physicians and emergency departments from 2002–2005 based on sampling weights. Numbers for retail clinics different from what is presented in Table 2 due to missing data on reason for visit.

** National Center for Health Statistics recommends against reporting individual estimates based on <30 records or with a SE >30% due to low reliability

Column percentages do not add up to 100% due to rounding.

~ Preventive care visits not for immunizations or screening. Defined by primary visit ICD-9 diagnosis codes V01, V70, V72, V29–39

^ The ten most common reasons are the following: upper respiratory infection, sinusitis, bronchitis, pharyngitis, immunizations, otitis media, conjunctivitis, urinary tract infection, and screening lab/blood pressure test

Analyses of claims data obtained from retail clinic companies and survey data from the National Ambulatory Medical Care Survey and the National Hospital Ambulatory Care Survey