



HEALTH

THE ARTS
CHILD POLICY
CIVIL JUSTICE
EDUCATION
ENERGY AND ENVIRONMENT
HEALTH AND HEALTH CARE
INTERNATIONAL AFFAIRS
NATIONAL SECURITY
POPULATION AND AGING
PUBLIC SAFETY
SCIENCE AND TECHNOLOGY
SUBSTANCE ABUSE
TERRORISM AND HOMELAND SECURITY
TRANSPORTATION AND INFRASTRUCTURE
WORKFORCE AND WORKPLACE

This PDF document was made available from www.rand.org as a public service of the RAND Corporation.

[Jump down to document ▾](#)

The RAND Corporation is a nonprofit institution that helps improve policy and decisionmaking through research and analysis.

Support RAND

[Browse Books & Publications](#)

[Make a charitable contribution](#)

For More Information

Visit RAND at www.rand.org

Explore [RAND Health](#)

[View document details](#)

Limited Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Unauthorized posting of RAND PDFs to a non-RAND Web site is prohibited. RAND PDFs are protected under copyright law. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use. For information on reprint and linking permissions, please see [RAND Permissions](#).

This product is part of the RAND Corporation technical report series. Reports may include research findings on a specific topic that is limited in scope; present discussions of the methodology employed in research; provide literature reviews, survey instruments, modeling exercises, guidelines for practitioners and research professionals, and supporting documentation; or deliver preliminary findings. All RAND reports undergo rigorous peer review to ensure that they meet high standards for research quality and objectivity.

TECHNICAL R E P O R T

Policy Implications of the Use of Retail Clinics

Robin M. Weinick, Craig Evan Pollack,
Michael P. Fisher, Emily Meredith Gillen,
Ateev Mehrotra

Prepared for the Department of Health and Human Services



RAND HEALTH

This work was sponsored by the Office of the Assistant Secretary for Planning and Evaluation at the Department of Health and Human Services. The research was conducted in RAND Health, a division of the RAND Corporation.

The RAND Corporation is a nonprofit institution that helps improve policy and decisionmaking through research and analysis. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors.

RAND® is a registered trademark.

© Copyright 2010 RAND Corporation

Permission is given to duplicate this document for personal use only, as long as it is unaltered and complete. Copies may not be duplicated for commercial purposes. Unauthorized posting of RAND documents to a non-RAND website is prohibited. RAND documents are protected under copyright law. For information on reprint and linking permissions, please visit the RAND permissions page (<http://www.rand.org/publications/permissions.html>).

Published 2010 by the RAND Corporation

1776 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138

1200 South Hayes Street, Arlington, VA 22202-5050

4570 Fifth Avenue, Suite 600, Pittsburgh, PA 15213-2665

RAND URL: <http://www.rand.org>

To order RAND documents or to obtain additional information, contact

Distribution Services: Telephone: (310) 451-7002;

Fax: (310) 451-6915; Email: order@rand.org

Preface

Retail clinics represent a significant innovation in the delivery of simple acute and preventive health care in the United States. These clinics focus on providing convenient care for a limited number of acute conditions, including colds, the flu, sore throats, ear infections, and minor skin conditions; they also offer limited preventive services and vaccinations. They provide walk-in care, have evening and weekend hours, and post fixed prices for visits. Care is typically provided by nurse practitioners.

The first retail clinics opened in 2000; today, there are nearly 1,200 retail clinics across the country. However, comparatively little is known about retail clinics relative to other providers, and speculation abounds as to what role retail clinics will ultimately play in the health care system.

At the same time, there has been little in the way of federal policymaking to date that has uniquely affected retail clinics, and federal policymakers who oversee Medicare, Medicaid, and the Children's Health Insurance Program (CHIP) need information to help inform policies regarding retail clinics, including policies related to coverage and reimbursement.

To help address these issues, the RAND Corporation conducted an environmental scan and convened a technical expert panel with the ultimate goals of describing what is currently known about retail clinics; examining their role in the U.S. health care system; and assessing whether and to what extent they may play a role in meeting national goals for high-quality, efficient health care. The environmental scan included both a review of the peer-reviewed literature, gray literature, and news sources and semistructured qualitative interviews.

This work was sponsored by the Office of the Assistant Secretary for Planning and Evaluation at the Department of Health and Human Services under contract No. HHSP23320095649WC, for which Darla Lipscomb serves as project officer. The research was conducted in RAND Health, a division of the RAND Corporation. A profile of RAND Health, abstracts of its publications, and ordering information can be found at <http://www.rand.org/health>.

Contents

Preface.....	iii
Figure and Tables.....	vi
Summary.....	vii
Acknowledgments	xv
Abbreviations	xvi
CHAPTER ONE	
Introduction	1
Questions Addressed in This Report	2
General Approach	3
CHAPTER TWO	
Retail Clinic Utilization	6
Scope of Care	6
Location and Accessibility	6
Utilization.....	6
Patient Characteristics.....	8
Why Patients Use Retail Clinics.....	9
Reasons for Choosing Retail Clinics Rather Than Other Care Settings.....	9
CHAPTER THREE	
The Relationship of Retail Clinics to Other Components of the Health Care System	11
Primary Care Providers	11
Emergency Departments.....	12
Urgent Care Centers	12
The Public Health System.....	13
The Impact of Retail Clinics on Other Providers' Models of Operation.....	13
The Position Statements of Professional Organizations	14
Expert Panel Discussion	15
CHAPTER FOUR	
Access to Care for the Medically Underserved	16
Retail Clinics in Medically Underserved and Low-Income Communities.....	16
Retail Clinics and Safety Net Providers	17
CHAPTER FIVE	
The Retail Clinic Business Model	18
Ownership Models and Their Benefits.....	18
Staffing	19

Profitability.....	20
Accreditation and Quality Standards.....	21
State Law and Regulatory Policy	21
CHAPTER SIX	
Cost and Insurance Coverage	23
The Costs of Care at Retail Clinics	23
Insurance Coverage.....	25
Credentialing	26
CHAPTER SEVEN	
Quality of Care.....	28
Patient Satisfaction with Care at Retail Clinics.....	28
Concerns About the Quality of Care Provided at Retail Clinics	28
Coordination and Continuity of Care.....	30
Electronic Health Records and Interoperability.....	33
Protocols.....	34
Quality Measurement	35
Oversight	37
CHAPTER EIGHT	
Emerging Trends.....	39
Chronic Disease Management.....	39
Other Expansions to the Scope of Care	40
New Sites of Care	40
Expanding Partnerships	41
Technological Innovations	41
Increasing Transparency.....	42
CHAPTER NINE	
Looking Forward.....	43
Outstanding Questions	43
Federal Policy and Retail Clinics	46
Implications	50
Concluding Observation	50
APPENDIXES	
A. Methods	52
B. Expert Panel Meeting.....	54
C. Position Statements from Professional Organizations	60
D. Convenient Care Association Quality Standards.....	67
E. The Estimated Number of Retail Clinic Visits That Would Be Captured by the National Health Interview Survey.....	69
References	71

Figure and Tables

Figure

A.1. The Results of the Literature Search.....	53
--	----

Tables

1.1. Professional Affiliations or Expertise of Interviewees.....	4
2.1. National Surveys Describing Retail Clinic Use.....	7
2.2. Most Common Reasons for Visits to a Retail Clinic.....	9
5.1. Distribution of Clinics, by Ownership Model	19
6.1. Costs of Episodes of Care.....	24
E.1. Estimated Number of Retail Clinic Visits and Individuals with at Least One Retail Clinic Visit That Would Be Included in the National Health Interview Survey	69
E.2. Assumptions Used for Estimating Total Number of Visits	70

Summary

Background: The Emergence of Retail Clinics

Retail health clinics are a recent and growing phenomenon in the United States. They treat a limited number of acute conditions and offer preventive services. They emphasize convenience: Located inside large retail stores, they are open evenings and weekends, require no appointment, and feature fixed, posted prices for all services. Care is typically provided by a nurse practitioner. Since the first retail clinic opened in the United States in 2000, the number of clinics has grown to an estimated 1,200 in 2010.

Empirical understanding of retail clinics and their place in the broader health care system is only beginning to emerge. Researchers have begun to examine the geographic distribution of retail clinics, the cost of services compared with those in other health care settings, the nature and quality of services, and the characteristics of users. Yet, a great deal remains unknown, and debate persists about the role that retail clinics will ultimately play in the health care system.

At the same time, there has been little federal policy action regarding retail clinics, and little evidence exists about the potential costs and benefits of integrating retail clinics into federal programs and initiatives. Federal policymakers who oversee Medicare, Medicaid, and CHIP need information in order to help inform policies regarding retail clinics, including those related to coverage and reimbursement.

Study Purpose and Approach

To shed light on these issues, RAND was asked by the Office of the Assistant Secretary of Planning and Evaluation at the Department of Health and Human Services to assemble a picture of what is currently known about retail clinics, identify unanswered questions, and flag key issues for federal policy. The ultimate goal of this work is to improve understanding of retail clinics and clarify their potential role in the U.S. health care system.

Our approach to this work consisted of three tasks:

- an environmental scan, consisting of a review of the peer-reviewed literature and the gray literature
- semistructured qualitative interviews with representatives from the retail clinic industry, physician and nurse practitioner organizations, consumer organizations, the health insurance industry, urgent care centers, public health departments, and federal agencies. We also

interviewed experts on health care topics, including quality of care, medical homes, and health care for the underserved.

- an expert panel meeting to which nine experts were invited and which was open to federal audiences and the public.

Key Findings: Current Knowledge and Understanding of Retail Clinics

We have synthesized the results from these three tasks and organized them into seven topic areas: (1) utilization, (2) the relationship of retail clinics to other parts of the health care system, (3) access to care for the medically underserved, (4) the business models under which retail clinics operate, (5) cost and insurance coverage, (6) quality of care, and (7) emerging trends. The following subsections summarize the results in each of these areas.

Utilization

- **Where are retail clinics located?** As of August 2008, retail clinics were located in 33 states. Nearly half of all clinics were located in five states: California, Florida, Illinois, Minnesota, and Texas.
- **What types of care do clinics provide?** Retail clinics currently offer a limited range of services. As of August 2008, all retail clinic chains offered treatment for minor infections (such as sore throats), minor skin conditions, and allergies. They also offered immunizations and routine preventive screening.
- **How many people use retail clinics?** Reports of the number of retail clinic users vary. A nationally representative survey in 2007 found that 1.2 percent of American families had visited a retail clinic in the prior 12 months. Other estimates have found higher percentages (up to 16 percent), but evidence suggests that the lower range of estimates is more reliable.
- **What are the characteristics of retail clinic users?** Retail clinic use is heaviest among younger adults, minority families, and families with children. Clinic users are typically younger than the patients seen in primary care or emergency departments. Patients who visit clinics are less likely to have an established relationship with a primary care provider: Only 39 percent report having such a relationship, compared with 80 percent of the general population. An estimated 16–27 percent of retail clinic users are uninsured.
- **Why do patients seek care at retail clinics rather than elsewhere?** The reason most widely cited by users is convenience (including weekend or evening hours and no need for appointments). Other reasons for visiting retail clinics include low-cost services, convenient locations, short wait times, transparent pricing, and dissatisfaction with primary care.

Relationship of Retail Clinics to Other Parts of the Health Care System

We encountered contrasting views of the relationship between retail clinics and primary care providers. Conditions for which patients typically visit retail clinics also constitute a significant proportion of reasons for patient visits to primary care providers. Retail clinics may pose a threat to the financial viability of primary care practices by treating the latter's most profitable patients. A contrasting view is that retail clinics may increase primary care revenue by generating referrals to practices and by allowing physicians to focus on sicker patients with more-complex needs, whose

care provides higher reimbursement. In some cases, primary care practices and retail clinics have built mutually beneficial working relationships, with the latter generating referrals to local physicians. Experts also emphasized that other providers could incorporate some of the methods used by retail clinics to improve access to care, since levels of satisfaction with their services are high.

Retail clinics' relationships to other parts of the health care system are still being shaped and defined, and they have not been studied in depth. In particular, we still know little about the extent to which people who visited retail clinics would, in the absence of such clinics, otherwise have visited emergency departments or urgent care centers. With respect to the public health system, retail clinics have had some interaction with public health agencies regarding vaccination and efforts to boost immunization rates. Experts have highlighted the role that retail clinics could potentially play in public health surveillance and in mass dispensing of countermeasures during a public health crisis.

Access to Care for the Medically Underserved

Some champions have argued that retail clinics may improve access to care for populations in underserved areas. However, retail clinics are not evenly distributed across neighborhoods, and they are more likely to be located in higher-income areas. Specifically, compared with the national average, census tracts containing retail clinics are more likely to have higher concentrations of white residents, fewer black and Hispanic residents, and fewer residents living in poverty. However, retail clinic use is more likely among minority families, and one study found that retail clinic users were disproportionately likely to live in poorer neighborhoods. The number of retail clinics that target underserved populations is limited. We are aware of only one community health center that has opened a retail clinic to treat a medically underserved population. The viability of retail clinics in underserved areas is uncertain and remains largely unexplored as a model for improving access to care in such areas.

Business Model for Retail Clinics

Retail clinics typically follow one of three business models. In the first, the clinic is owned and operated by the parent store that houses it. In the second, the clinic is owned by an independent company that partners with a retail store to house the clinic. In the third, the clinic is owned by a hospital, a physician group, or another health care provider. Nearly three-quarters of clinics follow the first model.

Profitability of retail clinics is a concern for operators, regardless of which model is used. The tenfold growth in the number of retail clinics between 2006 and 2008 has since slowed considerably. Some clinic chains and individual clinics have closed, and recent market projections forecast a slowdown in the growth of retail markets between 2010 and 2015. However, at least one retail clinic operator has announced plans for significant expansion.

Costs and Insurance Coverage

Several studies have examined the cost of retail clinic services and compared them with costs in other health care settings. The results show that retail clinics typically offer lower per-episode costs than urgent care centers, emergency departments, and primary care providers. Retail clinics therefore may reduce overall health system spending if patients substitute care at retail clinics for care at more-expensive sites. However, potential per-episode savings must be weighed against the fact that retail clinics could increase overall utilization by attracting patients who might not have otherwise sought care; an increase in utilization from this group would increase overall health care spending. Studies

that have modeled the likely impact of retail clinic growth on system spending have found that, in the best-case scenario, there would be modest savings of less than 1 percent of national spending.

Most retail clinics accept insurance coverage, including Medicare. Medicaid enrollees face barriers to retail clinic use. Reimbursement rates for conditions treated by retail clinics are low, and Medicaid managed care users—71 percent of all Medicaid beneficiaries—may need to pay out of pocket for care at retail clinics.

Quality of Care

Quality of care at retail clinics has been the focus of several studies. Here, we summarize findings in seven dimensions:

- **Patient satisfaction.** Patients have generally reported high levels of satisfaction with care received at retail clinics.
- **Processes of care.** Initial evidence shows that retail clinics deliver recommended care at rates that are comparable to those in other settings, although these studies have focused on only a small number of conditions. Three studies have shown that repeat visits for the same condition, which can be a measure of poor quality, were not more common at retail clinics than in other settings.
- **Appropriateness.** Representatives from several organizations voiced concerns that retail clinics may not always deliver appropriate care for certain kinds of patients, such as those with chronic conditions or taking multiple medications. A related concern is the potential conflict of interest created when pharmacy chains own retail clinics; in such situations, there may be an incentive to overprescribe medications. One study found comparable rates of antibiotic prescribing between physician offices and retail clinics.
- **Missed opportunities for preventive care.** Relatedly, there is concern that retail clinics may miss opportunities for delivering preventive care that a primary care physician would not overlook. The only study that has examined this issue found no significant difference in rates of utilization of preventive services between retail clinics and other sites; however, the study focused on a small insured population in only one state.
- **Coordination and continuity of care.** Many interviewees expressed concern that retail clinics will lead to less coordination, greater fragmentation of care, and the erosion of patient-physician relationships. However, some interviewees felt that retail clinics could complement the services offered by primary care providers.
- **Electronic health records and interoperability.** Electronic health records are widely used in retail clinics. However, they are not necessarily interoperable across different health care providers, which presents challenges to care coordination.
- **Quality measurement and oversight.** Although retail clinic operators typically conduct internal quality reviews, health plans and other organizations engage in relatively little collection of or public reporting on retail clinic quality. State laws dictate practices for physician oversight of nurse practitioners, and considerable variation exists both across states and among retail clinic operators.

Emerging Trends

The most commonly cited emerging trend is the management of chronic disease at retail clinics. For example, some retail clinics are expanding their scope of care to include the screening and treatment of hypertension and the management of asthma. This development has caused considerable debate. Experts in our panel discussion stressed the need to distinguish among screening, monitoring, and managing chronic disease, and they expressed greater comfort with the idea of retail clinics focusing on screening or routine monitoring of chronic diseases rather than conducting ongoing management. Emerging trends also include the expansion of services into other areas of care, such as treating acne, allergies, osteoporosis, and minor cuts that do not require sutures; providing travel immunization and weight loss services; and developing new sites of care, such as workplace clinics.

Unanswered Questions About Retail Clinics

Although research has begun to examine retail clinics and to understand utilization, costs, quality, and other aspects of their operations, many questions remain unanswered or have not been addressed in adequate depth. Key questions for further research include a better understanding of the following:

- How many people visit retail clinics?
- What is the impact of retail clinics on health service utilization and costs?
- What impact do retail clinics have on preventive care and chronic disease management?
- What is the quality of care at retail clinics?
- What is the impact of retail clinics on the fragmentation of care?
- How do retail clinics affect primary care practices?

Federal Policy Considerations

Medicare and Medicaid

The Centers for Medicare & Medicaid Services (CMS) recently developed a code to uniquely identify retail clinics as care sites under Medicare, creating the opportunity to analyze retail clinic expenditures for Medicare beneficiaries. The impact of Medicare reimbursement decisions on retail clinics, however, will likely be limited because only a small fraction of patients currently seen at retail clinics are Medicare beneficiaries. Increases in reimbursement rates for nurse practitioners, whose services are typically reimbursed at 85 percent of the Medicare fee schedule for physicians, may encourage the growth of retail clinics.

Quality and Care Coordination

There is growing interest in efforts by CMS to assess and report on the quality of care in many health care settings. To date, retail clinics have not been included in quality reporting initiatives sponsored by either the federal government or private insurers. Although many existing quality measures do not apply to retail clinics because of the clinics' limited scope of care, some measures—such as those related to appropriate antibiotic use—are relevant and could be used. The National Quality Forum is currently developing measures related to care coordination, and, if the final measures apply to care provided at retail clinics, policymakers may wish to consider including retail clinics in new initiatives.

Electronic Health Records

New initiatives funded under The American Recovery and Reinvestment Act of 2009 dedicate significant resources to promoting the adoption and use of health information technology. The Office of the National Coordinator for Health Information Technology has issued standards for the meaningful use of electronic health records, and CMS will provide incentive payments to eligible professionals who achieve such use. These incentives, which apply only to physicians, exclude nurse practitioners and physician assistants and therefore will likely have little impact on retail clinics. Because the use of electronic health records is an intrinsic part of the business model for nearly all retail clinics, extending such incentives so that they affect retail clinics may have little impact on the adoption of electronic health records. However, it may influence the ways in which electronic health records are used.

The Supply of Nurse Practitioners

The United States is facing an overall primary care shortage, and several factors may increase demand for nurse practitioners. First, if the number of retail clinics grows, the number of nurse practitioners required to staff these clinics will also rise. Second, nurse practitioners are increasingly used in other care settings. Finally, the expansion of insurance coverage under health reform may increase the demand for primary care and further strain the supply of nurse practitioners.

The Patient Protection and Affordable Care Act (P.L. 111-148) includes initiatives to increase the number of nurses and retain them in clinical practice; it also provides for demonstration grants for nurse practitioner training programs. In creating increased capacity for nurse practitioner training, policymakers may wish to consider trade-offs between expanding the supply of nurse practitioners working in retail clinics, where they would provide walk-in access to care, and having them work in primary care practices, where they would increase the availability of a broader range of primary care services.

Care for Underserved Communities

The Department of Health and Human Services, through the Health Resources and Services Administration (HRSA), plays a critical role in providing access to care in underserved communities by supporting Federally Qualified Health Centers. Currently, Federally Qualified Health Centers can operate their own retail clinics; in the future, policies could be expanded to allow such centers to partner with independent retail clinic operators. In addition, HRSA designates both Health Professional Shortage Areas (HPSAs) and Medically Underserved Areas (MUAs), and these designations may have an indirect effect on retail clinics. For example, Texas allows a higher number of nurse practitioners per supervising physician in HPSAs than in other areas. Such policies could reduce retail clinic operating costs in shortage areas and encourage them to locate there.

Demonstration Projects

A variety of federal demonstration projects that do not explicitly target retail clinics could nonetheless affect those clinics if they result in widespread changes to the health care system after the initial demonstration period. Their impact will likely depend on whether retail clinics are included on a care team. For example, medical home demonstrations are typically accompanied by payment changes, such as providing the medical home with a supplemental per-member, per-month payment. If retail clinics are included in the medical home, other providers on the team may divert patients to retail clinics because such care is less expensive than that provided in other settings. However, if

retail clinics are considered to be outside the medical home, other providers on the team would have an incentive to discourage patient utilization of services from providers outside their system.

The Patient Protection and Affordable Care Act

The impact of insurance expansions on retail clinics and on the broader health care delivery system remains unclear. There will be an influx of newly insured individuals, so primary care providers will likely experience increased demand for their services. At the same time, the nation will continue to face a growing shortage of these providers. This could lead to greater demand for retail clinic services. Further, if many newly insured individuals enroll in high-deductible insurance plans, these individuals may be more sensitive to the price of health care services, which may lead to increased retail clinic use.

Implications

The results of our work have three main implications for federal policymakers to consider.

Design Policies to Encourage Coordination and Decrease Fragmentation

Policies and programs to improve coordination and reduce fragmentation—such as patient-centered medical home demonstration projects, accountable care organizations, and increasing use of health information technology—can be designed to include retail clinics. Federal policies can encourage this integration by changing reimbursement structures and incentivizing care coordination and the transfer of information between providers.

Identify Key Lessons Learned from Retail Clinic Operations and How These Lessons Can Be Applied in Other Health Care Settings

Retail clinics have established a niche in the health care system based on their convenience and customer service. Growth in the industry to date appears to have been driven largely by high levels of patient satisfaction. The federal government can draw lessons from this experience to identify approaches to improve access and quality in other settings and can design policies to expand effective approaches.

Ensure That Retail Clinics Are Treated in the Same Manner as Other Health Care Providers

When developing or amending policies, federal policymakers can take steps to ensure that retail clinics are treated in the same way as other providers. These may include applying the same standards with regard to accreditation, measuring the quality of care and patient experiences with care, provider credentialing, and reimbursement; incorporating retail clinics into demonstration projects, such as those focused on telemedicine, the interoperability of electronic health records, and medical homes; considering the role that retail clinics could play in underserved areas; and examining the role of retail clinics in public health surveillance and the distribution of countermeasures during mass casualty events.

Concluding Observation

At the end of their first decade of existence, retail clinics have established themselves in the U.S. health care system. Yet, evidence about their functioning and their role in the health care system is still thin, and a good deal of additional research is needed. At the same time, retail clinics' role in the system may be evolving in the face of insurance expansions under the Patient Protection and Affordable Care Act, the growing shortage of primary care physicians, and the increased use of health information technology. Over time, these changes will create new opportunities for health policies at the federal and state levels to influence both how retail clinics function and the ways in which their care is integrated with that of other providers.

Acknowledgments

We wish to acknowledge the contributions of RAND colleagues David Adamson, Emily Bever, and Jennifer Gelman. John Adams, also of RAND, kindly prepared the material included in Appendix E. We also thank all of the individuals who agreed to be interviewed for this project, the members of our technical expert panel who generously shared their time and expertise, and the two reviewers who commented on an earlier draft of this report.

Abbreviations

AAFP	American Academy of Family Physicians
AANP	American Academy of Nurse Practitioners
AAP	American Academy of Pediatrics
ACEP	American College of Emergency Physicians
ACP	American College of Physicians
AMA	American Medical Association
CCA	Convenient Care Association
CCC	convenient care clinic
CHG	Community Health Group
CHIP	Children's Health Insurance Program
CMS	Centers for Medicare & Medicaid Services
COPD	chronic obstructive pulmonary disease
FTC	Federal Trade Commission
H1N1	Influenza A (H1N1) virus
HEDIS	Healthcare Effectiveness Data and Information Set
HIPAA	Health Insurance Portability and Accountability Act
HIV	human immunodeficiency virus
HPSA	Health Professional Shortage Area
HRSA	Health Resources and Services Administration
ICSI	Institute for Clinical Systems Improvement
MUA	Medically Underserved Area
NHIS	National Health Interview Survey
NP	nurse practitioner
PPH	Palomar Pomerado Health

Introduction

Retail clinics represent a significant innovation in the delivery of simple acute and preventive health care in the United States. These clinics focus on providing convenient care for a limited number of acute conditions, such as colds, the flu, sore throats, ear infections, and minor skin conditions; they also offer limited preventive services and vaccinations. Their emphasis on convenience is exemplified by their walk-in care services (no appointment required) and evening and weekend hours. Care is typically provided by nurse practitioners. The costs of care are fixed and displayed to patients before they receive care.

The first retail clinic opened in Minnesota in 2000. Between 2006 and 2008, there was a ten-fold increase in the number of clinics, with just under 1,000 clinics in operation in mid-2008 (Rudavsky et al., 2009; Scott, 2007). Since that time, however, growth has been curtailed: At the beginning of 2010, there were approximately 1,200 clinics offering services (Merchant Medicine, undated-b). The scope of services they provide has very recently begun to expand into areas of chronic disease care (Dolan, 2009b).

Comparatively little is known about retail clinics relative to other providers, and speculation abounds as to what role retail clinics will ultimately play in the health care system. Unanswered questions include what impact retail clinics will have on both continuity of care and patient relationships with their primary care physicians and how retail clinics may affect primary care providers financially. Other issues yet to be addressed include the extent to which the expected increase in the exchange of electronic health record information will affect the relationship between retail clinics and other parts of the health care system, how the quality of care at retail clinics should be measured, and how retail clinics affect access to care for underserved populations.

At the same time, there has been little in the way of federal policymaking to date that has specifically targeted retail clinics, and there is little evidence regarding the potential costs and benefits of integrating retail clinics into federal programs and initiatives. Federal policymakers who oversee Medicare, Medicaid, and the Children's Health Insurance Program (CHIP) need information to help inform policies regarding retail clinics, including policies related to coverage and reimbursement.

To help address these issues, the RAND Corporation conducted an environmental scan and convened an expert panel meeting with the ultimate goals of better understanding retail clinics; describing their role in the U.S. health care system; assessing whether and to what extent they may play a role in meeting national goals for high-quality, efficient health care; and understanding federal policies that may have an impact on retail clinic utilization.

Questions Addressed in This Report

We set out to broadly describe the current state of retail clinics and their contributions to the health care system as a whole. The general research questions addressed in this report are described in the following subsections.

Retail Clinic Utilization

- What types of conditions are seen at retail clinics?
- How are retail clinics distributed geographically, how accessible are they, and what are their hours of operation?
- How many people use retail clinics?
- What are the demographic and clinical characteristics of the retail clinic patient population?
- Why do patients choose to go to retail clinics rather than to seek care elsewhere?

Relationship of Retail Clinics to Other Parts of the Health Care System

- What is the relationship between retail clinics and other parts of the health care system, including primary care providers, emergency departments, urgent care centers, and the public health system?
- What impact do retail clinics have on other providers' models of operation?
- What are the positions of medical professional organizations concerning retail clinics?

Access to Care for the Medically Underserved

- To what extent are retail clinics located in underserved neighborhoods?
- How does the presence of retail clinics alter access to care for medically underserved populations?
- What is the relationship between retail clinics and other providers that focus on underserved populations, such as community health centers?

Business Model for Retail Clinics

- What ownership models exist for retail clinics? To what extent are they partnering with other health care organizations?
- What are the advantages and disadvantages of the nurse practitioner staffing model?
- Are retail clinics profitable?
- To what extent do retail clinics seek formal accreditation by bodies that offer this recognition to health care providers?
- How do scope of practice laws for nurse practitioners and laws regarding the corporate practice of medicine affect retail clinics?

Costs and Insurance Coverage

- How do the costs of care at retail clinics compare with those for similar care provided in other settings?
- What is the potential contribution of retail clinic care to lowering national health care costs?
- To what extent do retail clinics accept private insurance coverage?
- How are retail clinic visits treated under Medicare?
- What concerns exist regarding retail clinic participation in Medicaid?

Quality of Care

- How satisfied are patients with their retail clinic visits?
- What concerns have been raised about the quality of care at retail clinics?
- What is known about how comparable their quality is to that of other sites of care?
- What concerns exist about the appropriateness of care provided at retail clinics and missed opportunities for preventive care?
- What role do electronic health records and care protocols play in retail clinic care?
- What concerns exist about the potential for retail clinics to contribute to the fragmentation of care?
- To what extent is information about retail clinic visits shared with patients' primary care providers?
- How are referrals and patient follow-up addressed by retail clinics?
- What measures are best for assessing and monitoring quality at retail clinics? How are quality and appropriateness of care being monitored?
- What approaches do retail clinics take to ensure appropriate oversight of the care they provide?

Emerging Trends

- What are the emerging trends in retail clinic operation, including new services, locations, and partnerships?

Looking Forward

- What key questions regarding retail clinics remain unanswered, and how could they ideally be addressed?
- What federal policies are likely to affect retail clinics and the patients who use them?
- What are the implications of our findings for federal policy?

General Approach

We reviewed the peer-reviewed and gray literature, conducted semistructured qualitative interviews, and convened an expert panel meeting.

Literature Review

Our primary search of the peer-reviewed literature was based on PubMed, a resource maintained by the National Center for Biotechnology Information at the U.S. National Library of Medicine, which is located in the National Institutes of Health. PubMed includes journal citations and abstracts in the fields of medicine, nursing, and the health care system, among others. Because there is no single medical subject heading term for retail clinics, we employed multiple search terms (see Appendix A). This strategy identified both empirical articles and opinion pieces published in the indexed literature. The search included articles from 1965 through October 27, 2009.

From the 94 articles obtained in the initial search, we identified 12 empirical articles for inclusion in our research. (Appendix A presents our inclusion and exclusion criteria.) We supplemented these 12 articles with six additional articles, for a total of 18. Five of the additional articles were published after the main literature search was completed but prior to April 2010. The sixth, a working paper published on the authors' website, is cited in this report with the authors' permission. The 18 empirical articles involve a variety of data sources, including medical claims data; surveys of individuals and families, large employers, and physicians; semistructured interviews and focus groups; and data on retail clinics obtained from clinic websites.

Because of the paucity of published research articles, we supplemented our literature review with published descriptive and opinion articles; surveys, reports, and presentations from the gray literature; and news articles identified via a search of LexisNexis Academic Universe.

Interviews

We conducted semistructured interviews with a wide variety of individuals, asking each to address questions appropriate to his or her expertise with the goal of identifying broad themes to inform federal policymakers. We interviewed 41 individuals from 39 organizations. The affiliation or expertise of the interviewees is shown in Table 1.1.

Table 1.1
Professional Affiliations or Expertise of Interviewees

Type of Organization or Affiliation	No. of Individuals Interviewed
Retail clinics	
Operators, including independent and health system based	6
Trade associations	1
Experts on the retail clinic industry	5
Health systems partnering with independent retail clinic operators	1
Professional associations	
Physician organizations	5
Nurse practitioner organizations	1
Organizations representing consumers	3
Health insurance representatives	
Private health insurance plans	1
Medicaid plans	2
National trade organizations	2

Type of Organization or Affiliation	No. of Individuals Interviewed
Urgent care centers	
Trade associations	1
Operators	1
Public health departments	
State	1
Local	1
Representatives of federal agencies	3
Experts on other topics	
Quality, quality measurement, and accreditation	4
Medical homes and health care for the underserved	3
Total	41

Expert Panel Meeting

The expert panel meeting was held on April 22, 2010; nine experts participated. The meeting was open to federal policymakers and to the public, and 21 individuals attended. Three primary topics were addressed:

- **Current policy and practice considerations.** Many new policies and demonstration projects are driving current and potential future changes in the delivery of health care in the United States. These policies and projects include the Centers for Medicare & Medicaid Services (CMS) medical home demonstration project, the development of accountable care organizations, the use of bundled payment models, and federal efforts to significantly expand the use of electronic health records and health information exchanges. Discussion focused on how retail clinics may factor into these efforts.
- **Emerging retail clinic trends.** News media reports indicate that retail clinics are likely to expand the care they offer beyond acute minor conditions to include a variety of additional areas, ranging from sprained ankles to chronic disease management. Other reports suggest that retail clinics could evolve into sites used to access telemedicine that are staffed by trained medical attendants connected to offsite physicians. The panel addressed how these changes may affect retail clinics and the broader health care delivery system.
- **Issues and questions for federal policy consideration.** This session allowed panelists to raise issues and questions relevant to federal policy regarding retail clinics, with a particular focus on Medicare, Medicaid, and CHIP. Panelists also discussed the extent to which retail clinics are viable alternative sources of care for populations covered by these programs, potential policy levers for increasing the accessibility of retail clinics care for underserved populations, and the potential impact of recent health care reform legislation.

Appendix B presents both the list of participants and an overview of the discussion that took place.

In the chapters that follow, we combine our findings from the literature review, the qualitative interviews, and the expert panel meeting, presenting the results in thematic chapters that reflect the study's main questions.

Retail Clinic Utilization

This chapter describes the role that retail clinics play in the U.S. health care system. It discusses their scope of care, their accessibility, their utilization, the characteristics of patients who use them, and the reasons why patients seek care at retail clinics.

Scope of Care

Retail clinics offer a consistent and limited scope of services (Rudavsky et al., 2009). As of August 2008, all retail clinics provided treatment for minor infections, such as sore throats, ear infections, and sinus infections. Nearly all treated minor skin conditions and allergies and also offered immunizations and routine preventive screening. Such services as smoking-cessation counseling and counseling related to HIV or sexually transmitted diseases were offered less frequently, at 58 percent and 3 percent of retail clinics, respectively. A later chapter discusses the current movement to expand this scope of care.

Location and Accessibility

As of August 2008, retail clinics were located in 33 states, with nearly half of them concentrated in five states (California, Florida, Illinois, Minnesota, and Texas) (Rudavsky et al., 2009). An estimated 28.7 percent of the U.S. population lives within a 10-minute drive of a retail clinic, and people who live closer to retail clinics are more likely to use them (Parente and Town, 2009; Rudavsky et al., 2009).

To increase the accessibility of their services, retail clinics are routinely open at night and on weekends. One study shows that over 97 percent of clinics surveyed were open after 6 p.m. and during weekends (Rudavsky et al., 2009). One typical pattern is to have evening hours each weekday and shorter hours on Saturdays and Sundays.

Utilization

As shown in Table 2.1, reports of the number of people who have visited retail clinics have varied widely. The nationally representative 2007 Health Tracking Household Survey found that 1.2 percent of American families had visited a retail clinic during the past 12 months and that 2.3 percent had ever used a retail clinic (Tu and Cohen, 2008).

Table 2.1
National Surveys Describing Retail Clinic Use

Source	Year	No. Surveyed	Percentage Reporting Retail Clinic Use	Findings of Interest Related to Retail Clinics
Internet surveys				
Harris Interactive	2005	2,245	7% of respondents and their immediate families	41% of individuals who had not used a retail clinic indicated that they were very or somewhat likely to use a clinic for basic medical services.
Harris Interactive	2007	2,441	5% of respondents and their immediate families	22% of users did not have health insurance. Of people with insurance, 42% said the insurance covered all or part of the costs of their visit.
Mott Children's Hospital	2007	2,076	10% of children, 11% of adults	22% of child visits and 38% of adult visits to a retail clinic were paid out of pocket; the remainder were paid in full or in part by insurance. Children who used retail clinics were less likely to have a usual source of care compared with children who did not use retail clinics (89% versus 96%, respectively). Families with lower incomes were more likely to use retail clinics.
Deloitte	2008	3,031	16% in the last 24 months	17% of the uninsured and 16% of the insured reported retail clinic use.
Harris Interactive	2008	4,937	7% of respondents and their immediate families	16% of users did not have health insurance. Of people with insurance, 62% said their insurance covered all or part of the costs of their visit.
National Business Group on Health	2008	1,502	16% of employees who worked for large employers in the past 2 years	86% were very or somewhat satisfied with the services they received.
Deloitte	2009	4,001	13% in the past 12 months	Usage rates were similar among those with Medicare (11%), Medicaid (10%), and private insurance (13%). Younger adults were more likely to report using retail clinics than older adults.
Telephone surveys				
Tu and Cohen	2007	~18,000 people in 9,400 families	1.2% of respondents and family members in the past 12 months; 2.3% had ever used a retail clinic	27% of users had an uninsured family member. Of families with insurance, 68% reported that insurance covered all or part of the cost. Families without a usual source of care were more likely to use retail clinics, as were younger families, minority families, and families with children.

NOTES: The results of one survey (Lee et al., 2009) are omitted because they address retail clinic use solely for influenza vaccination. In all surveys except that of the National Business Group on Health, responses were weighted to create nationally representative estimates. The two surveys reporting the highest retail clinic use focused on a 24-month rather than a 12-month period. The survey reported in Tu and Cohen (2008) had the largest sample size and was nationally representative of the U.S. population.

In general, surveys that report higher levels of utilization are less representative of the U.S. population as a whole or examined a longer period. For example, Deloitte's 2009 *Survey of Health Care Consumers* estimated that 13 percent of consumers had visited a retail clinic in the past 12 months, and a 2008 survey by the National Business Group on Health found that, among employees at large businesses, 16 percent had visited a retail clinic in the past two years (Deloitte Center for

Health Solutions, 2009a; National Business Group on Health, 2008). We suspect that this discrepancy is related to differences in the survey question wording and administration and to temporal trends.

The retail clinic trade association estimates that there have been fewer than 5 million visits since the industry's inception (Ridgway, 2010). If every one of those visits was made by a different patient, then no more than 1.6 percent of the U.S. population could have ever visited a retail clinic. Therefore, the lower estimates of utilization are more likely to be accurate.

Because clinics address a considerable number of upper respiratory problems, utilization of retail clinics may be seasonal. Although no studies to date have examined this issue, in 2009, MinuteClinic, the largest retail clinic operator, temporarily closed 89 of its 545 sites during the nonflu season due to low patient demand.

Patient Characteristics

Retail clinic use is more likely among younger adults, minority families, and families with children; clinic users are typically younger than people seen in primary care offices (Deloitte Center for Health Solutions, 2009a; Mehrotra et al., 2008; Tu and Cohen, 2008). Retail clinic operators report relatively little use by patients ages 65 and older, who constitute only 7.5 percent of retail clinic patient visits, compared with 21.5 percent of primary care practice visits (Mehrotra et al., 2008).

Patients who use retail clinics are less likely to have an established relationship with a primary care provider. In one study, only 39 percent of the retail clinic population reported having a usual source of care, compared with more than 80 percent of the United States population (Agency for Healthcare Research and Quality, 2007; Mehrotra et al., 2008). Retail clinic representatives report that the fraction of retail clinic patients with a primary care provider has increased over time, although a substantial fraction of such patients still report that they do not have a primary care provider. Families and children who lack a usual source of care are more likely to seek care at retail clinics (Mehrotra et al., 2008; Tu and Cohen, 2008).

National surveys found that approximately 16–27 percent of individuals and families who used retail clinics did not have health insurance and that retail clinic users paid out of pocket for their care more often than users of other health care providers: 33 percent of retail clinic visits were paid for out of pocket, compared with 10 percent of primary care visits and 25 percent of emergency department visits (Deloitte Center for Health Solutions, 2009a; Harris Interactive, 2007; Mehrotra et al., 2008; Tu and Cohen, 2008). In one insured population, retail clinic users were more likely than nonusers to live in poorer neighborhoods (Parente and Town, 2009).

The characteristics of patients who visit retail clinics specifically to receive influenza vaccinations differ from those of the retail clinic patient population as a whole. Compared with those who receive their vaccinations elsewhere, they are more likely to be older, less likely to be black or Hispanic, and more likely to have made visits to other health care providers (Lee et al., 2009).

Why Patients Use Retail Clinics

Patients' Clinical Conditions

More than 90 percent of visits to retail clinics involved the ten common clinical problems shown in Table 2.2 (Mehrotra et al., 2008). The information in the table is based on administrative data maintained by retail clinic operators regarding each visit. Visits for these ten conditions constituted just 18 percent of all primary care visits and just 12 percent of all emergency department visits (Mehrotra et al., 2008).

Table 2.2
Most Common Reasons for Visits to a Retail Clinic

Reason for Visit	Percentage of Visits
Upper respiratory tract infection, sinusitis, or bronchitis	27.4
Pharyngitis	21.2
Immunization	19.7
Otitis media or otitis externa	12.7
Conjunctivitis	4.6
Urinary tract infection	3.5
Screening lab or blood test	1.3
Other preventive service	0.8

SOURCE: Mehrotra et al. (2008).

NOTE: Upper respiratory tract infection, sinusitis, and bronchitis are counted as three separate conditions. Otitis media and otitis externa are treated as a single condition.

A study that used survey data to assess the most commonly reported reasons for visiting a retail clinic found that 48 percent of visits were for new illnesses; 23 percent were for vaccinations; 15 percent were for physical examinations for school, camp, or employment; 47 percent were for prescription renewals; and 18 percent were for care for an ongoing chronic condition (Tu and Cohen, 2008). (Respondents could select more than one answer, so these total more than 100 percent.) The inclusion of the last two services—which were not provided by retail clinics at the time of the survey—may indicate that survey respondents were confused by the question.

Reasons for Choosing Retail Clinics Rather Than Other Care Settings

In one qualitative study involving 61 patients, patients reported choosing retail clinics primarily for convenience. Location, low costs, transparent pricing, short wait times, and dissatisfaction with going to a primary care doctor or an emergency department were cited as contributing to the convenience of retail clinics (Wang et al., 2010). As one patient in the study said, “It’s really convenient. I’m in and out, I get the results.” Another patient reported, “They took good care of me here and it’s really quick. . . . Because we always work double shifts, we don’t have time [to see a doctor].” Less commonly reported reasons for visiting retail clinics included patient travel, inability

to get an appointment with a primary care provider, and not having a regular source of care. Patients indicated that, if they had been unable to visit a retail clinic, they would have waited to see a doctor, gone to the emergency department, gone to an urgent care center, visited other sites of care, or have taken a “just wait and see” approach (Wang et al., 2010). A separate survey found that people chose retail clinics because the hours (64 percent) and location (53 percent) were more convenient, no appointment was needed (53 percent), the cost was lower (48 percent), or the patient had no usual source of care (34 percent) (Tu and Cohen, 2008). Another study posed a hypothetical question to survey respondents regarding their willingness to seek care for urinary tract infections and influenza from nurse practitioners at retail clinics rather than from physicians in private offices. This study found that respondents preferred to seek care from a physician in an office when all other things were equal, and that a cost savings of approximately \$31 would be required for respondents to be willing to seek care at a retail clinic (Ahmed and Fincham, 2010).

The experts we interviewed emphasized the importance of evening and weekend hours, noting retail clinics’ extended hours of operation relative to primary care. One representative from a retail clinic operator reported that more than half of the operator’s patients seek care outside of normal business hours, and another suggested that the advent of retail clinics was a response to primary care providers’ limited availability and refusal to accept walk-in visits. The collocation of retail clinics and pharmacies enables patients to fill their prescriptions onsite, and one representative from a retail clinic operator we interviewed emphasized the added convenience this provides to patients. During the expert panel meeting, the importance of customer service more generally was highlighted as being of high importance to patients and as something not commonly found in physician offices.

The Relationship of Retail Clinics to Other Components of the Health Care System

This chapter explores how the emergence of retail clinics has affected primary care providers, urgent care centers, and emergency departments and examines the relationships of these providers to retail clinics. This chapter also presents a discussion of the role of retail clinics in the public health system and the position statements issued by health care provider organizations.

Primary Care Providers

We encountered two divergent perspectives on the relationship between primary care providers and retail clinics. First, some primary care providers have expressed concern that retail clinics could have an adverse financial effect on their practices by diverting patients seeking treatment for simple acute conditions away from their practices. Simple acute conditions can be treated quickly and therefore may cross-subsidize care for patients with more-complex needs that require more physician time relative to reimbursement rates. As one commentator from the Rhode Island Medical Society noted, “They’re skimming easy cases off the top and that’s going to affect primary-care offices financially and will interfere with the physician-patient relationship” (Robeznieks, 2007).

Second, we encountered the converse perception that retail clinics are benefiting some primary care practices by enabling providers to shift less-complicated cases to retail clinics. A representative of the American College of Physicians forecasted that this change could make primary care more attractive to physicians as a specialty because it would allow primary care physicians to be viewed more like specialists than they currently are—or, in the individual’s phrasing, as “the doctor’s doctor.” The professional drive on the part of physicians, this individual felt, leads to an interest in providing complex care rather than treating simple conditions, such as runny noses and earaches. If this type of “offloading” is indeed happening, it may be a sign that retail clinics allow certain aspects of care to be shifted to health professionals with less-intensive training, which could help preserve access to care in the face of shortages of primary care providers (Laws and Scott, 2008). However, one writer expressed concern that retail clinics may further the shortage of primary care doctors: “But if the services provided by so-called minute clinics turn out to be more profitable per unit of time than other primary care activities, this trend could further discourage physicians from entering primary care” (Pham and Ginsburg, 2007).

The tension between these two perspectives was described thus by one commentator:

Some practitioners will see this as “cream skimming” and a threat to their revenue, particularly if they rely on income from short appointments for simple cases to subsidize the cost of more time-consuming appointments for more complex cases. But others may see in-store clinics as a way to improve their patients’ access to care, decompress their busy waiting rooms, free them up to spend more time with patients, and serve the uninsured, a group of patients whom they [the office-based providers] may wish to avoid. (Bohmer, 2007)

In some instances, primary care practices and retail clinics have built mutually beneficial working relationships. Retail clinics that are not directly owned or operated by a hospital or physician group may refer patients to local physicians when additional care is needed. James Woodburn, MinuteClinic’s former chief medical officer, observed that “it’s critical for MinuteClinic that we have very good relations with physicians in our community” (Woodburn, 2007). One physician group reported that an important impetus for its decision to enter the retail clinic market was the potential downstream revenues generated from referrals and follow-up care (Newbold and O’Neil, 2008). This focus on referrals is echoed in a report from a health care system–owned retail clinic, which notes that, on average, about 15 percent of patients are referred from their retail clinics for care elsewhere in their system (Pollert et al., 2008).

Emergency Departments

The relationship between retail clinics and emergency departments is still being shaped and defined. Many interviewees considered retail clinics to be a potential solution to emergency department overuse for minor illnesses. One expert on retail clinics highlighted the potential for retail clinics to decrease emergency department utilization, particularly in areas underserved by primary care physicians. Another interviewee noted that several health plans are trying to use retail clinic contracting as a strategy for reducing high emergency department utilization. Others were skeptical about the ability of retail clinics to shift patients from emergency departments. One such individual, a representative from the American College of Emergency Physicians, viewed this strategy as overly simplistic. In addition, nonurgent, minor illnesses and injuries are not a key cause of emergency department crowding, and many emergency departments currently have fast track areas that use nurse practitioners or physician assistants to provide care for these conditions (American College of Emergency Physicians, 2008). The question of whether retail clinics will reduce emergency department utilization for these conditions cannot be answered with information that is currently available.

Urgent Care Centers

Retail clinics have sometimes been confused with urgent care centers. Although both feature walk-in availability and expanded hours of operation, there is little resemblance beyond that. Retail clinics are always located within larger retail stores and are typically staffed by nonphysicians; most urgent care centers are freestanding and physician-staffed. In addition, the scope of services at retail clinics is limited to minor acute problems, whereas the scope of care provided at urgent care centers is expanded beyond that typically found in primary care practices and includes care for fractures and lacerations and the ability to provide intravenous fluids onsite (Weinick and Betancourt, 2007;

Weinick et al., 2009). A limited number of organizations use a hybrid model. For example, Solantic, an urgent care chain in Florida, has both freestanding and in-store locations. Given their ability to offer walk-in care and an expanded scope of services, urgent care centers that are located in the same communities as retail clinics could receive retail clinic referrals of patients in need of services beyond those that retail clinics can provide. To date, there is no evidence regarding how widespread this phenomenon is. However, to the extent that the two types of facilities have overlapping scopes of care, retail clinics may pose a financial threat to the viability of urgent care centers in much the same way as they do to primary care providers.

The Public Health System

Retail clinics also interact with the public health system to varying degrees. This involvement to date has been largely confined to vaccinations. One research study examined the degree to which retail clinics could increase influenza vaccination rates (Lee et al., 2009). One retail clinic chain reported having been contacted directly by the Centers for Disease Control to help distribute the H1N1 influenza vaccine in response to the 2009–2010 outbreak. In addition, one health system that owns a retail clinic chain reported that the clinics are viewed by its organization as a frontline provider of influenza immunization and testing services. An expert on retail clinics described instances of clinics working with local public health departments to ensure that the clinics were using appropriate influenza guidelines, sharing them with the public, and participating in vaccine registries. Separately, one retail clinic chain representative noted that the lead nurse practitioner at each of the chain's clinics is responsible for developing a relationship with the local county health department to ensure effective communication about reportable diseases.

Our expert panel discussion also highlighted the role that retail clinics could potentially play in public health surveillance. Retail clinic operators that provide care over a dispersed geographic area but share a single electronic health record could provide early warning of pandemic events and—with their connections to retail pharmacies that already receive regular deliveries of medications—could serve as sites for the distribution of prophylactic medications or treatment during such events.

The Impact of Retail Clinics on Other Providers' Models of Operation

Interviewees and the expert panel emphasized that retail clinics have the potential to prompt other providers to increase their focus on convenience and consumer satisfaction. Many interviewees, including a representative from the American Medical Association, noted that retail clinics have stimulated physicians to adopt evening and weekend hours. Similarly, both a representative from the American Academy of Pediatrics and an expert on retail clinics noted that retail clinics may have a positive impact on access to care by encouraging pediatricians to extend their office hours. This is echoed in a news article that states that convenient care clinics (CCCs)

will also create consumer-driven pressure for primary care to provide better scheduling options and more convenient hours of operation. CCCs will be the catalyst that primary care offices need to make changes to better meet the needs of today's consumer. (Newbold and O'Neil, 2008)

In contrast, one representative from a retail clinic operator contended that primary care providers in his community had not changed their way of operating, noting that many were already providing extended office hours. The only data available on this topic come from a survey of pediatricians performed by the American Academy of Pediatricians in which 85 percent of pediatricians reported no current or planned practice changes in response to retail clinics (American Academy of Pediatrics, Division of Health Services Research, 2008).

The Position Statements of Professional Organizations

A number of different physician organizations and the American Academy of Nurse Practitioners have developed formal position statements regarding retail clinics. These position statements are provided in Appendix C and summarized here.

Both the American Academy of Pediatrics (AAP) and the American Academy of Family Physicians (AAFP) have expressed concern about retail clinics. The AAP “opposes retail-based clinics as an appropriate source of medical care for infants, children, and adolescents and strongly discourages their use” (American Academy of Pediatrics, 2006). The AAFP “does not endorse Retail Health Clinics . . . , believes that they could interfere with the medical home and opposes expansion of their scope of service, in particular, to include the diagnosis, treatment and management of chronic medical conditions in this setting” (American Academy of Family Physicians, 2007).

In contrast, the American Academy of Nurse Practitioners (AANP) noted that “[r]etail-based clinics are a potentially viable resource for the provision of necessary primary care services in many communities throughout the United States” (American Academy of Nurse Practitioners, 2007). The American College of Physicians (ACP), the American Medical Association (AMA), and the American College of Emergency Physicians (ACEP) have each issued related principles without explicitly endorsing or opposing the model.

Desired Attributes of Retail Clinics

In their statements, the professional organizations describe the following desirable attributes of retail clinics that they feel should be priorities:

- coordinating care with local health care providers (AAFP, AAP, ACEP, ACP, and AMA)
- using evidence-based medicine (AAFP, AAP, ACEP, ACP, and AMA)
- having a defined scope of care (AAFP, ACEP, ACP, and AMA)
- appropriately using oversight and referrals (AAFP, ACEP, ACP, and AMA)
- maintaining electronic health records (AAFP, ACEP, and AMA)
- ensuring that patients are protected (e.g., meeting HIPAA requirements and maintaining confidentiality) (AAP, ACEP, and AMA)
- adhering to regulations (e.g., those of the Occupational Safety and Health Administration) (AAP, ACEP, and AMA)
- having mechanisms whereby patients can contact someone with questions at any time, including hours when the clinic is not open (ACP).

With its somewhat different focus, compared with the physician organizations, the AANP stated that “[i]n order to facilitate their functioning at the highest quality level, NPs [nurse

practitioners] must be involved in all aspects of forming and running these clinics" (American Academy of Nurse Practitioners, 2007). AANP standards for retail clinics describe nurse practitioners' roles in these clinics, which include providing care that is within their scope of practice, being permitted to establish quality assurance efforts, maintaining professionalism, and receiving competitive salaries. Like many of the guidelines promulgated by physician organizations, the AANP statement highlighted the organization's desire for retail clinic facilities to meet regulatory requirements and be adequately equipped. In addition, in our interview, a representative from AANP highlighted both the leadership role that nurse practitioners currently play in many other practice settings outside of the retail clinic arena and their importance in management and decisionmaking.

Beyond the principles just listed, the AMA has, according to a representative, passed two additional resolutions related to retail clinics. In 2007, the AMA called for investigations of potential conflicts of interest created by having retail clinics located in pharmacies, expressing concern that retail clinics might be used to boost pharmaceutical sales. In 2008, the AMA passed a resolution supporting efforts to ban the sale of tobacco products in stores that also house retail clinics.

Expert Panel Discussion

The goal of the expert panel discussion was to illuminate the role of retail clinics in the U.S. health care system. When the experts were considering the relationship of retail clinics to other health care providers, one topic that received considerable discussion was many panelists' desire to see retail clinics treated in the same way as all other health care providers with respect to being included in demonstration projects; subject to the same licensing, credentialing, and accreditation requirements as other ambulatory-care providers; and subject to the same requirements for follow-up and care coordination as other providers. An additional topic of discussion was the opportunity for other providers to learn from the successes of retail clinics, particularly the focus on convenient care and customer satisfaction.

Access to Care for the Medically Underserved

Increasing access to care in low-income, predominantly minority, and medically underserved communities is a critical public policy concern. Retail clinics are sometimes described as having the capability to improve access and provide affordable care for low-income individuals and underserved communities (Gallegos, 2007; Takach and Witgert, 2009). However, research has found that retail clinics are not evenly distributed across all types of neighborhoods. For example, census tracts with retail clinics have a higher percentage of white residents, a lower percentage of black and Hispanic residents, and a lower percentage of people living in poverty than tracts without retail clinics (Pollack and Armstrong, 2009). To date, most retail clinics have been opened in urban and suburban locations; little is known about their viability in medically underserved rural areas.

This chapter discusses the extent to which retail clinics can provide care in medically underserved communities and the clinics' relationship with community health centers, which are core safety net providers in many underserved communities.

Retail Clinics in Medically Underserved and Low-Income Communities

A recent study found that 13.6 percent of census tracts with retail clinics were considered Medically Underserved Areas (MUAs), whereas 25.0 percent of the comparison tracts without retail clinics were so classified (Pollack and Armstrong, 2009). Similarly, a second study found that only 12.5 percent of retail clinics were located in Health Professional Shortage Areas (HPSAs), whereas 20.9 percent of the U.S. population lives in such areas (Rudavsky and Mehrotra, 2010). MUAs and HPSAs are federal designations of geographic areas with shortages either of personal health services or of primary medical care, dental, or mental health providers, respectively.

There are a number of potential explanations for the relative lack of retail clinics in these communities. Representatives of retail clinic operators cited low Medicaid reimbursement rates as one obstacle to opening clinics in low-income communities. One such interviewee stated that Medicaid reimbursement rates undercut clinic viability; the company's targeted strategy has thus been to open clinics in rapidly growing suburban areas. In addition to these low Medicaid payments under fee-for-service arrangements, a large majority of Medicaid enrollees are covered under capitated plans that require the use of a primary care gatekeeper (Kaiser Commission on Medicaid and the Uninsured, 2010). Thus, patients may need a referral from their primary care physician prior to being seen at a retail clinic, and this would significantly lower the likelihood of their seeking care there. A small number of Medicaid plans have opted to cover services in retail clinics even though the services such clinics provide would already be covered under the capitated payments that

the plans make to primary care physicians. These plans anticipate that the use of retail clinics may prevent the use of higher-cost services, such as those provided in emergency departments.

Several of our interviewees expressed skepticism that populations in medically underserved communities would be willing to use retail clinics, and a small study of low-income parents of young children (Coker et al., 2009) noted their lack of trust in providers in retail clinics. An expert focused on the idea of patient choice described white upper-middle-class individuals as “early adopters” of new care providers, such as retail clinics, and one representative from a retail clinic operator believed that retail clinics generally attract patients with higher incomes and more education than the general population. In contrast, as described earlier, retail clinic use is more likely among minority families, many of whom lack a usual source of care and pay out of pocket for their care.

Retail Clinics and Safety Net Providers

One expert we interviewed was not optimistic about the viability of retail clinics operating in underserved areas in the absence of a relationship with a community health center, and a representative from the National Association of Community Health Centers noted that establishing collaborative relationships between retail clinics and community health centers can open pathways for retail clinic operation in medically underserved communities.

At least one community health center has opened a retail clinic of its own specifically to target underserved populations. In October 2009, Milwaukee Health Services recently opened a retail clinic housed within a local supermarket with the goal of improving access to its services in a part of the city that lacks providers. Because of the integrated relationship between the health center and its retail clinic, patients in need of follow-up care can be scheduled for follow-up visits at one of the center’s two main locations (Boulton, 2010). Other partnerships between retail clinics and community health centers are under development in Pennsylvania and Wisconsin.

Uncertainty exists about the sustainability of melded community health center–retail clinic models because community health centers continue to need federal grant support to provide care for uninsured and low-income patients. Two guides have been developed to help community health centers understand how to operate retail clinics: National Association of Community Health Centers (2008) and Scott (2008). These guides include general information about the retail clinic model of care, methods to forecast potential demand, ways to work with retail clinic operators, the economics of operating a clinic, legal considerations, physical-plant requirements, and sliding-scale fee structures.

Other safety net entities are also opening retail clinics. Hennepin County Medical Center, Minnesota’s biggest public hospital, opened a retail clinic in a Wal-Mart location in early 2010. This is the first identified instance of a retail clinic being operated by a public hospital (Yee, 2010).

The Retail Clinic Business Model

Following its rapid startup in 2000, the retail clinic industry saw a tenfold increase in the number of clinics between 2006 and 2008 (Scott, 2007). As late as 2007, there were predictions of significant growth, with up to 6,000 clinics anticipated by the end of 2012. Since then, however, the growth of retail clinics has been significantly curtailed, and some retail clinic chains and individual clinic sites have closed (Costello, 2008; Tu and Cohen, 2008). At the beginning of 2010, there were 1,183 retail clinics in operation, a net increase of eight clinics since early 2009 and an addition of only 201 clinics since mid-2008 (Merchant Medicine, undated-b; Rudavsky et al., 2009). The most recent projections expect market growth to slow to 10–15 percent between 2010 and 2012 and then to increase to more than 30 percent in 2013–2014 period (Deloitte Center for Health Solutions, 2009b). In contrast to the anticipated slowdown, one early 2010 report noted CVS's recent announcement that it planned double the number of MinuteClinic locations after the passage of health care reform (Wolf, 2010).

As the industry has evolved, so have the business models under which retail clinics operate. This chapter describes retail clinic ownership and staffing models. It also discusses the extent to which retail clinics are profitable; accreditation issues; and additional concerns that affect the day-to-day operations of retail clinics.

Ownership Models and Their Benefits

There are three ownership models for retail clinics. In the first, the clinic is owned and operated by the parent store in which it is located, frequently as a subsidiary organization. One example is MinuteClinic, a subsidiary of CVS Caremark Corporation, the company that owns and operates the CVS/pharmacy stores within which the retail clinics are located. Under this arrangement, the parent company receives income from both the retail clinic visit and any additional purchases made while the patient is in the store.

In the second model, the clinic is owned by an independent company and is either housed in a retail store under partnership or run as a standalone operation. RediClinic, which partners with HEB supermarkets in Texas to house its clinics, is an example.

In the third model, clinics are owned by hospitals, physician groups, or health care systems. This is true of retail clinics owned by Geisinger and the Mayo Clinic. Wal-Mart uses a variation on this model by partnering with local hospitals or hospital systems to independently operate clinics in their stores while cobranding for broader name recognition in the community. This model comprises the smallest number of clinics but is showing significant growth potential.

Table 5.1 shows the distribution of clinics by ownership model as of August 2008. At the time, nearly three-quarters of the clinics (714 out of 982) in operation were owned by the same corporation that owned the stores in which they were located (Rudavsky et al., 2009). This included three main clinic operators: CVS, which operates MinuteClinic; Walgreens, which runs the Take Care Clinics; and Target, which owns TargetClinic.

Table 5.1
Distribution of Clinics, by Ownership Model

Ownership Model	No. of Clinics	Examples
Operator owns stores in which clinics are located	714	Take Care Clinics, MinuteClinic
Operator partners with a retail store or has stand-alone locations	155	RediClinic
Operator is a physician group, hospital, or health care system	133	Mayo Express Care, Careworks Convenient Health Care

SOURCE: Rudavsky et al. (2009).

An emerging trend is for independent retail clinic operators to develop formal relationships with existing hospital systems or local physician groups. One example is the recent partnerships that MinuteClinic has established with the Cleveland Clinic and Allina Hospital and Clinics; another is the relationships that RediClinic has built with local physician groups (MinuteClinic, 2009a, 2009b; RediClinic, undated).

Interviewees felt that retail clinics that are operated by or in partnership with hospitals, physician groups, or health care systems may enable greater integration and coordination of care between the clinics and other providers, including primary care offices, in part due to shared information systems. A number of interviewees also felt that this model offered advantages from a business perspective. The experts and representatives of retail clinic operators we interviewed noted that associations with established primary care practices may be a substantial referral source for retail clinic visits, and retail clinic providers with available time can support the primary care practices in a variety of ways, including by making follow-up phone calls to patients or examining patient records to identify individuals overdue for preventive testing. This type of relationship can help compensate for seasonal variation in demand for retail clinic services and help clinics avoid closing due to low demand outside of influenza season. One expert felt that such joint arrangements also help with the retail clinic's branding: If the clinic is linked with a trusted hospital, patients will be more confident that they will receive high-quality care. This sentiment was echoed by an American Hospital Association spokesperson, who noted, "When the local hospital puts their brand on it, it puts a higher expectation in the public's mind" (Robeznieks, 2007).

Staffing

Staffing the clinics with nurse practitioners is one characteristic feature of retail clinics. Both a retail clinic expert and a representative from a retail clinic operator noted that the vast majority of providers at retail clinics are nurse practitioners. The remaining providers are typically physician assistants. A nurse practitioner receives advanced nursing education and is licensed through nursing boards. A physician assistant practices medicine under the supervision of a physician and consistent with the supervising physician's scope of practice. Retail clinics are rarely staffed by physicians,

although there are some exceptions. For example, the in-store clinics formed by a partnership between a hospital parent company and Duane Reade, a pharmacy chain in New York City, are staffed with physicians, enabling the clinics to provide a wider scope of services.

A number of interviewees felt that the use of nonphysicians was appropriate for retail clinics because of the scope of care the clinics provide. For example, a representative from the American College of Physicians believes it is appropriate because retail clinics treat minor conditions that can be addressed via protocol-based care.

Nurse practitioners and physician assistants typically receive lower salaries than physicians, and this contributes to the affordability of retail clinics. One representative from a health insurance plan noted that, from a policy perspective, one means of obtaining more-affordable health care is to have every provider practice to the top of his or her scope of practice. By this measure, retail clinics are advantageous because they use nonphysicians to treat minor conditions, thus enabling physicians to be more available to care for patients with more-complex conditions. However, the limited scope of care offered at retail clinics may mean that these nurse practitioners and physician assistants are offering care that is below the full range of their licenses and abilities, which include the provision of a full range of primary care services, and may not present an adequate professional challenge.

Interviewees described the choice between staffing with nurse practitioners or physician assistants as being driven largely by scope of practice laws, which affect both the care that nurse practitioners and physician assistants are able to provide and the level of supervision required. One retail clinic expert also noted that there is a larger supply of nurse practitioners than physician assistants. Two representatives of different retail clinic operators stated that their companies would select the best provider without regard to whether that individual was a nurse practitioner or a physician assistant and that they did not believe one was more capable of delivering quality care than the other.

Retail clinics are relatively attractive to nurse practitioners because clinic employment pays relatively well and allows for part-time and flexible hours. One retail clinic expert noted that many nurse practitioners, after having worked in a hospital, choose a retail clinic for the lifestyle because such work allows them to spend more time with their families. However, some nurse practitioners do not like retail clinics because they feel that the scope of care provided underutilizes their skills.

None of the representatives of retail clinic operators that we interviewed felt that there was a current shortage of available providers, but several expressed apprehension about potential future shortages if the number of retail clinics continues to grow. According to one estimate, approximately 7,500 nurse practitioners and 4,000 physician assistants graduate each year (Hooker and Berlin, 2002). The Convenient Care Association noted that both are in high demand in many areas of health care and that the industry anticipates needing considerably more nurse practitioners if the number of retail clinics increases. The availability of nursing faculty to train new nurse practitioners is limited, and this is likely to restrict the future availability of nurse practitioners. An American Academy of Nurse Practitioners representative estimated that 6,000 candidates were turned away last year because of a lack of training capacity.

Profitability

Contrary to expectations, most retail clinics have not generated a profit; those that are profitable have been operating on slim margins (Costello, 2008). Numerous operators have opened retail

clinics but have subsequently gone out of business, including CheckUps, QuickHealth, CornerCare, SmartCare, and WellnessExpress (Costello, 2008; Dolan, 2009b; Mehrotra et al., 2008). Wal-Mart publicly announced the desire to open clinics in 400 stores, but fewer than 50 of its stores currently house a clinic (Merchant Medicine, undated-c). Overall, the number of clinics has grown slowly over the last two years, and in 2009 there was a net gain of only 8 clinics (increasing from 1175 clinics to 1183) (Merchant Medicine, undated-b).

There are several potential reasons for these financial struggles. By some estimates, clinics need to see 17–23 patients per day and stay open for 18–36 months just to break even (Costello, 2008; Dolan, 2009a). However, many clinics see fewer patients, and profit margins are slim and depend on the services provided and the amount that insurers reimburse for those services. In addition, demand for retail clinic services is seasonal, and clinics have struggled to offer services that attract patients during the slower summer season (Dolan, 2009a).

Accreditation and Quality Standards

Accreditation by an external accrediting body, most often The Joint Commission, signifies that a health care provider has met certain quality and patient safety standards. These can include a wide variety of capabilities, such as regular quality monitoring and processes for addressing critical lab results. Before accrediting a clinic, the external body conducts an onsite visit to verify adherence to protocols, correct recordkeeping, appropriate follow-up care, accurate testing, and appropriate capabilities for referring patients to other providers.

As is also typical of most ambulatory physician practices, comparatively few independent retail clinic operators have obtained external accreditation. MinuteClinic and Little Clinic are the only two independent retail clinic operators that have obtained Joint Commission accreditation (Palomar Pomerado Health, undated; PR Newswire, 2010).

A representative from The Joint Commission suggested that retail clinics could potentially use accreditation to differentiate themselves from peers, protect themselves from claims of poor quality, and encourage patients to receive care at their sites. However, many retail clinic operators may not see a clear motivation for accreditation, as the process can be costly and there may not be a clear business advantage to becoming accredited. To be covered under Medicare, accreditation of inpatient care is required; however, it is not required for outpatient care.

The Convenient Care Association, the trade association for retail clinics, has established a set of quality and safety standards that it expects its members to uphold (see Appendix D). However, there is no inspection or accreditation procedure accompanying this policy.

State Law and Regulatory Policy

Finally, scope of practice regulations, corporate practice of medicine laws, and health care facility licensing regulations—all of which may vary by state—may have an impact on retail clinic practice. The typical provider at a retail clinic is a nurse practitioner, and there is significant variation in regulations governing the extent to which nurse practitioners can practice independently, the scope of physician collaboration or oversight required, and nurse practitioners' prescribing authority (Christian et al., 2007). States may not require physician involvement in diagnosing and treating

patients, may require physician supervision or collaboration, may require written practice protocols regarding physician oversight, or some combination (Pearson, 2009). Cross-state variation in scope of practice laws requires retail clinic operators to institute varying levels of physician oversight, a requirement that results in administrative hurdles and added costs for retail clinic operators. These laws could influence an operator's decision to open clinics in certain states, although there is no clear relationship between scope of practice laws and the distribution of retail clinics (Tu and Cohen, 2008). Many states are currently considering legal changes that would expand nurse practitioners' scope of practice (Johnson, 2010).

Corporate practice of medicine laws, present in certain states, prohibit business corporations from employing physicians to provide professional medical services and ban the sharing of professional fees with nonlicensed persons or entities (Kaiser and Friedlander, 2000). These laws were initially intended to mitigate potential conflicts of interest between the goals of a corporation and the needs of a patient (National Health Lawyers Association and the American Academy of Healthcare Attorneys, 1997). Restrictions on the corporate practice of medicine may limit nonphysician ownership and out-of-state physician ownership of retail clinics, and they may affect the structure of employment contracts between retail clinics and providers in particular states (Rozga, 2009). To the extent that retail clinics are owned by corporations, these regulations may limit the clinics' ability to expand into certain states, or they may require changes in the business and operating practices of these organizations.

Health care facility licensing regulations may have an impact on the costs associated with opening and operating retail clinics. Each retail clinic location may need to be licensed separately, or licensure may occur at the corporate level and apply to multiple facilities (Scott, 2006). Retail clinics may be licensed under requirements applied to freestanding emergency centers, urgent care centers, or other outpatient facilities. Alternatively, they may, like primary care physicians' offices, fall under a physician's medical license (Rozga, 2009). States may also develop separate licensing requirements that are specific to retail clinics, such as those created by the Massachusetts Department of Public Health's compulsory licensing for limited-service clinics. Several states have considered changes to facility licensing specific to retail clinics, such as banning the sale of tobacco products where clinics are operated and mandating minimum clinic sizes or the availability of a waiting room.

Cost and Insurance Coverage

The Costs of Care at Retail Clinics

In general, the average costs of care at retail clinics are lower than the costs of similar care provided in other settings for individual episodes of care. However, there is less evidence regarding retail clinics' impact on national health care spending.

Costs of Individual Episodes of Care

Four separate studies have compared the costs of care at retail clinics with those in other settings, including physician offices, urgent care centers, and emergency departments. Two studies used claims data from one large Minnesota insurer (HealthPartners). The third used data from another health plan (United Healthcare) to examine costs per episode of care, including outpatient visits, pharmaceutical claims, and ancillary tests for a given illness. The fourth study used data from a single large group practice in Minnesota.

The first study, Mehrotra et al. (2009), assessed costs for patients with one of three conditions: otitis media, pharyngitis, and urinary tract infections. Retail clinic treatment costs were found to be 30–40 percent lower than those of physician offices and urgent care centers, and they were found to be approximately 80 percent lower than those of emergency departments. The average cost across all three conditions was \$110 at retail clinics, \$166 at physician offices, \$156 at urgent care centers, and \$570 at emergency departments. These differences were driven by retail clinics' lower costs for medical evaluation and management. Average prescription costs were similar across retail clinics (\$21), physician offices (\$21), and urgent care centers (\$22) but were higher in emergency departments (\$26). Average laboratory costs and imaging services cost the least at retail clinics.

The second study, Thygeson et al. (2008), also found lower overall costs at retail clinics for five common conditions (conjunctivitis; otitis media without surgery; tonsillitis, adenoiditis, or pharyngitis without surgery; acute sinusitis; and infection of the lower genitourinary system, not sexually transmitted). The findings from the two studies are compared in Table 6.1.

Table 6.1
Costs of Episodes of Care

	Retail Clinic	Physician Office	Urgent Care Center	Emergency Department
Mehrotra et al. (2009)^a				
Total costs	\$110	\$166	\$156	\$570
Evaluation and management	\$66	\$106	\$103	\$358
Pharmacy	\$21	\$21	\$22	\$26
Laboratory and radiology testing	\$15	\$33	\$27	\$113
Inpatient	\$6	\$1	\$1	\$6
Other	\$2	\$5	\$3	\$67
Thygeson et al. (2008)^b				
Total costs	\$104	\$159	\$154	\$383
Medical costs	\$75	\$127	\$124	\$356
Pharmacy	\$28	\$32	\$30	\$27

^a Mehrotra et al. (2009) examined costs for three types of clinical conditions: otitis media, pharyngitis, and urinary tract infections. Costs are for episodes of care, which include the initial visit and subsequent follow-up for related reasons.

^b Thygeson et al. (2008) examined costs for five types of clinical conditions: conjunctivitis; otitis media without surgery; tonsillitis, adenoiditis, or pharyngitis without surgery; acute sinusitis; and infection of the lower genitourinary system, not sexually transmitted.

The third study found 64-percent lower per-episode costs for those who visited a retail clinic rather than other sites of care and that there was a greater cost differential for healthier enrollees (Parente and Town, 2009). The fourth study compared costs over a six-month period for patients seen at a new retail clinic with those seen in an existing same-day acute medical clinic from a single practice. It examined five conditions: conjunctivitis, sore throat, viral illness, bronchitis, and cough. This study, based on a small sample from a single group practice, found that patients who visited the retail clinic had lower total six-month health care costs than those who initiated their care in the same-day acute medical clinic (Rohrer, Angstman, and Bartel, 2009).

Utilization and Costs of Care

Given that care at retail clinics is convenient, there has been concern that the availability of clinics could lead to increased utilization of care—that is, that patients who normally would not have sought care for minor conditions will now choose to visit a retail clinic. To date, only a single study, Parente and Town (2009), has examined this issue. Using data from a large national health insurer, the study examined the impact of retail clinic use on overall health care cost and utilization. Econometric modeling techniques demonstrated that use of retail clinics did not increase overall utilization or costs. Instead, the study's conservative estimate is that overall costs are 14 percent lower among those who utilize a retail clinic than those of similar enrollees who do not visit a retail clinic. Because this study was based on data from a single insurer, these findings may not apply to individuals covered by other health plans or to those who are uninsured.

Potential Impact on National Health Care Costs

Retail clinics' lower per-episode costs have generated interest in whether clinics could reduce overall health care costs in the United States if they could shift simple acute care away from higher-cost

settings, especially emergency departments. Two groups of researchers have modeled the potential impact on national costs of retail clinics becoming widespread.

Eibner et al. (2009) modeled the impact of different cost-containment options for both Massachusetts and the United States as a whole. The most aggressive models assumed that the number of retail clinics in Massachusetts would grow from 40 in 2010 to 220 in 2019 and that the number of patients seen annually at these retail clinics would rise from 330,000 to 2.2 million during the same period. Even under these circumstances, the benefits are modest: The maximum savings across the ten-year period is \$6.1 billion, which is less than 1 percent of total health care spending in Massachusetts. Extrapolating these results to the United States as a whole results in a modest cost savings of 0.6 percent of total national health care expenditures over the ten years (Hussey et al., 2009).

A separate study, by Thygeson (2009), found similar results, estimating that the potential national cost savings from retail clinic expansion ranged between \$2.0 and \$7.5 billion—a maximum of 0.3 percent of total national costs. The research used data from one insured urban population and assumed that the total number of visits made by enrollees would not change, that all visits for the ten conditions listed in Table 2.1 would be seen at retail clinics rather than in other settings, and that the health plan's average cost savings and number of visits per episode of care would remain constant.

Insurance Coverage

Most retail clinics accept insurance coverage, and many have sought contractual arrangements with the health insurers that cover the patients they serve. One study that included a random sample of 100 clinics found that nearly all accepted some form of private insurance (97 percent) and Medicare fee-for-service (93 percent) (Rudavsky et al., 2009). Approximately 60 percent accepted some form of Medicaid. The National Business Group on Health's 2009 survey of large employers found that 42 percent provided a benefit that covered the use of retail clinics (National Business Group on Health, 2009). In comparison, 26 percent of large employers reported offering this benefit in 2008. In 97 percent of cases in which employers did provide such a benefit, cost sharing for a retail clinic was the same as cost sharing for a primary care physician office visit.

One representative from a retail clinic operator described a program established by one insurer for a particular employer group under which members using a retail clinic were entitled to a discounted copayment. Another employer's plan waived deductibles for employees seeking care at retail clinic locations, and other insurers have promoted the use of retail clinics for flu shots and flu-like illnesses. In addition, one expert we spoke with pointed out that capitated managed care plans are increasingly covering retail clinic use for their members, partially in the hope of reducing the number of emergency department visits.

Medicare

Medicare beneficiaries ages 65 and older receive care in retail clinics, though less commonly than younger adults, and many retail clinic operators report both accepting Medicare fee-for-service reimbursement and having established contracts with some Medicare Advantage plans. One retail clinic operator reported seeing Medicare patients most often to provide flu shots. Medicare payment is contingent on establishing each individual provider's eligibility for reimbursement under the

conditions of participation and on the provision of covered services as medically necessary. Under these circumstances, nurse practitioners, including those who typically staff retail clinics, are reimbursed at 85 percent of the Medicare Physician Fee Schedule.

Medicaid

According to representatives of retail clinic operators, low Medicaid reimbursement rates for the types of services offered by retail clinics are one barrier to clinics' greater participation. In addition, some representatives of retail clinic operators reported that Medicaid reimbursement processes are complex and administratively challenging. One retail clinic representative described an organizational commitment to accepting Medicaid and trying to make care affordable for patients, but noted that the process has been difficult, and another said that some Medicaid managed care plans would prefer not to cover retail clinic visits and have been slow to enter into contracting arrangements.

Nationally, an estimated 71 percent of Medicaid enrollees are enrolled in managed care or primary care case-management plans, which cover their care under capitated fees and require the use of a primary care gatekeeper (Kaiser Commission on Medicaid and the Uninsured, 2010). As a result, unless other payment arrangements are negotiated by the plan, many Medicaid enrollees must pay out of pocket for retail clinic services, whereas care in other settings is covered by Medicaid with little or no copayment.

Credentialing

Provider credentialing requirements for insurance reimbursement can affect staffing patterns. This issue received considerable attention during our expert panel meeting. The discussion highlighted the additional burden created by having to credential individual nurse practitioners—who often provide care at more than one retail clinic—at each retail clinic location under Medicare, Medicaid, and multiple health insurance plans.

Pilot Project by a California Medicaid Plan to Encourage Use of Retail Clinics to Reduce Emergency Department Costs

Like many health plans, Community Health Group (CHG)—the largest Medicaid plan in San Diego County; it has 115,041 enrollees—has faced a dramatic rise in emergency department expenditures. Working in conjunction with Palomar Pomerado Health (PPH) expresscare, a health care system that owns retail clinics located in supermarkets in southern California, CHG recently began a pilot project to encourage its enrollees to visit PPH expresscare rather than emergency departments to receive care outside of normal weekday business hours for simple acute problems.

Initially, as it considered retail clinics as an alternative to emergency departments, CHG regarded the option with some concern because CHG pays its contracted primary care physicians a capitated monthly fee to cover office-based care, including care for simple acute conditions. Some in CHG worried that paying separately for retail clinic visits would essentially be paying twice for the same care, but, because the costs for emergency department visits are covered by a separate hospital contract, deterring even a small number of emergency department visits could result in significant savings for the plan.

Under the pilot, visits to PPH expresscare clinics by CHG enrollees are covered for simple acute problems but not for other types of care. A mailing sent to the more than 2,500 CHG enrollees living in the area in July 2009 described the clinic, its location, and services. The phone number included in the mailing led patients to the CHG call center, so, during the day, patients were encouraged by the call center to seek care from their primary care physician, but, after hours, patients were encouraged to go to a PPH expresscare clinic rather than to the emergency department.

Preliminary results show that CHG enrollees have made a small number of visits to the PPH expresscare clinics, but it is too soon to judge the pilot's impact on emergency department use.

Quality of Care

The quality of health care in all settings is receiving increased attention nationally. Emphasis is being placed on measuring patient experiences with care; benchmarking quality data among providers; and facilitating increased appropriateness, coordination, and continuity of patient care.

Patient Satisfaction with Care at Retail Clinics

Studies of patient satisfaction have generally shown that patients are happy with the care they receive at retail clinics. In one survey, 90 percent of consumers who used retail clinics reported being very or somewhat satisfied with the quality of care, and 93 percent reported being very or somewhat satisfied with the convenience (Harris Interactive, 2007). A separate survey also found that satisfaction among retail clinic users was high, with 96 percent reporting being satisfied or very satisfied with their care and 96 percent waiting not at all or spending less time waiting for care than they had anticipated (Hunter et al., 2009). Similarly, the National Business Group on Health (2008) found that 86 percent of retail clinic users were very or somewhat satisfied with their care. In a study that used semistructured interviews, only one person out of 61 expressed dissatisfaction with the care received at retail clinics (Wang et al., 2010).

Concerns About the Quality of Care Provided at Retail Clinics

Initial evidence suggests that the quality of care provided at retail clinics is comparable to that provided in other health care settings, although, to date, quality has been examined in the context of only a select number of conditions. One study used claims data from a single health plan to examine the quality of care delivered to individuals seen for one of three conditions: otitis media, pharyngitis, and urinary tract infection (Mehrotra et al., 2008). The analysts created an aggregate score based on 12 quality indicators and found that both the aggregate quality scores (shown here in parenthesis) and those of individual components of quality were similar at retail clinics (63.6 percent), physician offices (61.0 percent), and urgent care centers (62.6 percent). However, the results revealed one exception. High-risk patients were significantly less likely to undergo a urine culture for a suspected urinary tract infection at retail clinics than in other settings: 29.6 percent received such a test in retail clinics, 56.8 percent in physician offices, 58.1 percent in urgent care centers, and 54.8 percent in emergency departments. The reason for the lower performance of retail clinics on this measure is unclear. Few retail clinics offer urine cultures, and their guidelines typically recommend that the

patient seek a culture at a physician's office. It is possible that patients choose not to seek further care for this condition.

A study that focused on acute pharyngitis, Woodburn et al. (2007), found that the quality of care at retail clinics was generally high. Examining 57,331 patient visits to MinuteClinics in 2005 and 2006, the researchers found high adherence to clinical guidelines. In particular, the study identified high rates of appropriate antibiotic prescribing among patients with a positive rapid streptococcal test (99.8 percent), low rates of antibiotic prescribing among those with a negative rapid test (0.9 percent), and appropriate confirmatory testing for all cases (99.1 percent).

One potential measure of quality is the rate of repeat visits for the same medical condition. High rates of repeat visits may indicate that the care provided at the initial visit was incomplete, and repeat visits can increase overall costs. Three studies have examined rates of repeat visits and of follow-up care received at other sites after an initial provider visit. The first, Mehrotra et al. (2009), found similar rates of follow-up visits for related conditions for patients with otitis media, pharyngitis, and urinary tract infections after being seen at retail clinics, physician offices, urgent care centers, and emergency departments. The second, Thygeson et al. (2008), found a 2-percent higher rate of return visits for episodes of care initiated at a retail clinic compared with those initiated at a physician office or urgent care center. These two studies used similar datasets with an overlapping set of diagnoses. The reasons for the differences in their findings are unclear but may be attributable to different study methodologies. The third study, Rohrer, Angstman, and Furst (2009) and Rohrer et al. (2008), examined rates of return visits within two weeks for adult and pediatric patients seen at retail clinics. Rates of return were not statistically different for patients seen at retail clinics compared with those seen for a same-day acute care visit at a physician office.

Appropriateness of Care

Representatives from several organizations expressed concern that retail clinics may not always be able to provide the most appropriate care for specific types of patients. An American Medical Association representative said that individuals with chronic conditions may be taking multiple medications that could have harmful interactions with medications prescribed for acute conditions and noted that this could require care outside of established retail clinic protocols. Similarly, a representative from CMS stated that the Medicare population has a greater burden of illness than the population overall, meaning that individuals belonging to this population generally require more coordination of care. Because this population's care needs are complex and because retail clinics focus on episodic care, this individual felt that retail clinics might not be an appropriate site of care for this population. A representative from the American Academy of Pediatrics noted the lack of retail clinic providers with specific pediatric training, suggesting that the clinics would not be able to offer the most appropriate care for children.

A related concern is the potential conflict of interest posed by pharmacy chain ownership of retail clinics, which could provide overt or implicit incentives for clinicians in these settings to write more prescriptions or recommend greater use of over-the-counter products than would otherwise occur. This issue was raised by a representative from the American Medical Association.

An expert from the National Quality Forum expressed concern that, given that many patients visit retail clinics specifically to secure antibiotics, patients at retail clinics could be overtreated with these drugs. However, a study that examined rates of antibiotic prescribing did not find any evidence to support this concern, noting that antibiotic prescribing for sore throats and middle-ear infections at retail clinics was similar to rates at physician offices: 25 percent of patients with sore throats

received antibiotics at retail clinics compared with 29 percent at physician offices (Mehrotra et al., 2009).

Missed Opportunities for Preventive Care and Chronic Illness Management

Many interviewees expressed concern that visits to retail clinics may represent missed opportunities for preventive services and chronic illness management that would otherwise be provided by primary care physicians. For example, one state public health official noted that episodic issues often bring patients in for care and create an opportunity for primary care physicians to address longer-term health issues. However, the official felt that this concern needed to be balanced against retail clinics' more timely provision of acute care.

Representatives from two physician organizations described similar concerns. In particular, a representative from the American College of Physicians observed that, when a patient visits a primary care office for a minor acute problem, much more than just care for that problem occurs: Providers listen to other health concerns and have an opportunity to schedule follow-up visits. The representative noted that, if retail clinics are functioning independently of the rest of the health care system, such opportunities would be lost. The representative noted that good communication between the retail clinics and primary care physicians is essential to making retail clinics a safe and effective part of patients' health care.

A representative from one health system with a retail clinic affiliation noted that the joint arrangement between the two organizations allows them to identify gaps in care, such as overdue preventive services, and to conduct proactive outreach to patients, who can then visit either a primary care provider or a retail clinic. Such opportunities could also be created and incentivized if retail clinics' mechanisms for sharing electronic health records and communicating with primary care physicians' offices were enhanced.

The only study to date to examine missed opportunities, Mehrotra et al. (2009), found no significant differences in rates of preventive service utilization in the months following patient visits to a retail clinic (14.5 percent), a physician office (14.2 percent), or an urgent care center (13.7 percent). This study was limited to an insured population in Minnesota, so the extent to which the results can be generalized to all retail clinic patients is unclear.

Coordination and Continuity of Care

A patient centered medical home is an approach to providing primary care that is designed to enhance quality by providing a personal physician who coordinates all of a patient's care in the context of a team-oriented, information technology-supported practice (American Academy of Family Physicians et al., 2007). A number of individuals we interviewed pointed out that although retail clinics are not designed to serve as patient centered medical homes in and of themselves, they can complement services offered by primary care providers in order to create a "geographically diverse" medical home—i.e., one that may involve multiple providers in different locations but has the potential to care for patients across the continuum of their primary care needs. Achieving this level of integration would require ongoing communication and coordination with primary care offices, which several interviewees noted could be facilitated considerably with the use of shared electronic health records. Retail clinics could fill an important niche in the medical home model by offering walk-in and after-hours care for minor illnesses. One representative from a physician

organization noted that retail clinics could potentially fulfill the enhanced-access component of the medical home in ways that small primary care offices may find very challenging to provide. One health plan representative stated that, if retail clinics were appropriately integrated with primary care offices, they could potentially be seen as an extension of the primary care provider.

This level of communication and coordination may be easier to implement in retail clinics that are owned by health systems or that have formal business arrangements with large, integrated medical providers. A representative from one health care system that also operates retail clinics noted that, when patients without a primary care physician visit the company's retail clinics, clinic staff actively seek to recruit the patients into an ongoing relationship with the health system. In such ways, jointly affiliated organizations may be better suited to increasing access to primary care. One interviewee pointed out that independent retail clinics would need to build collaborative relationships with local primary care providers, which may, as other interviewees warned, view the retail clinics as competing for their business and therefore choose to forgo such partnerships.

One representative from the Massachusetts Department of Public Health stated that consumers may not always value having a medical home for simple episodic care. An expert on retail clinics provided two analogies that help illustrate many consumer perspectives on retail clinics. First, a car owner who regularly patronizes an excellent mechanic may choose to procure routine oil changes elsewhere. Second, when visiting a financial planner, a client would not bring receipts showing every withdrawal from an automated teller machine. In both cases, the analogy highlights consumers' interest in working with a primary care provider for more-complex health concerns and their willingness to step outside of that relationship for addressing comparatively minor routine issues. Another expert we interviewed described consumers' desire for accessible care, focusing on both geographic location and the availability of convenient care on an as-needed basis. Retail clinics likely fill this particular niche in consumers' needs.

Fragmentation of Care

Some of the individuals we interviewed expressed concern that retail clinics could lead to increased fragmentation of care and to the erosion of patient relationships with primary care physicians. This fragmentation could lead to missed diagnoses and missed opportunities for preventive services. According to Dr. Ted Epperly, president of American Academy of Family Physicians,

Although nurse practitioners and retail health clinics can provide an access point into the funnel of complex health care, they are not the end point of that funnel. In fact they only contribute to the fragmentation to [sic] care, not to the integration and coordination of care that happens at primary care physician practices. (Dolan, 2009b)

A representative from the American Academy of Pediatrics noted that retail clinics may increase the likelihood of fragmentation of children's care, again creating lost opportunities for interacting with patients about concerns unrelated to that particular visit. This individual noted that some of these concerns stem from fears that information may be lost in the handoff of patients from retail clinics back to primary care providers and that this problem could be addressed by retail clinic use of electronic health records. The discussion at our expert panel meeting noted that payment policies that reimburse providers only for in-person patient visits are a disincentive to collaboration and may contribute to fragmentation.

The Transfer of Patient Information to Primary Care Providers After a Retail Clinic Visit

Many interviewees agreed that high-quality care—whether provided as part of the patient-centered medical home or not—requires ongoing coordination among providers and that this necessitates a transfer of information to primary care providers after a patient has been seen at a retail clinic. While, as one representative from a retail clinic operator noted, every patient receives a printed summary record of the visit, this is likely inadequate to ensure that the information reaches the primary care provider. One expert from a national health care quality organization noted that how information reaches the primary care physician's office (and whether it does so consistently) is unclear.

Two representatives of retail clinic operators, one independent and the other affiliated with a health system, said that their organizations have clear policies regarding the transfer of information back to primary care physicians after a retail clinic visit. For example, on its website, Careworks Convenient Healthcare, which is part of Geisinger Health System, tells physicians the following: “With the patient’s permission, we will notify you within 24 hours of his or her Careworks visit by phone, fax, letter or email in accordance with your individual preference” (Careworks Convenient Healthcare, 2009). One retail clinic operator was developing a mechanism to allow the retail clinic provider to schedule follow-up appointments with primary care physicians, if needed.

However, retail clinic patients do not always wish to share visit information with primary care providers. For example, as interviewees noted, some patients are embarrassed about their retail clinic visit or are concerned that their primary care provider will be upset with them for having sought care there and therefore prefer not to notify their primary care provider. A representative from one health system that operates retail clinics also noted that patients sometimes request that a note not be sent to their doctor because the health issue is minor and they do not want to “bother” the doctor. One expert pointed out that, despite retail clinic efforts to send visit records to primary care physicians, the primary care offices sometimes disregard the records or ask to be taken off the retail clinic’s fax list. The expert indicated that there is a considerable nonreimbursable cost to primary care providers associated with reviewing and filing the records.

These concerns suggest that physicians’ reactions to their patients’ retail clinic visits, and patients’ anticipation of those reactions, may be important barriers to improving communication between retail clinics and primary care offices and to incorporating retail clinics into the medical home. These issues can also pose short-term problems for patients who need follow-up care with a physician after a retail clinic visit. No studies have measured how frequently communication between retail clinics and primary care providers after a visit occurs.

Referrals

Another aspect of care coordination is retail clinics’ ability to appropriately refer to local physicians those patients who need either a higher level of care or follow-up and ongoing care. One retail clinic operator maintains a referral book at each clinic that is organized by specialty, including primary care and safety net providers, and that lists the insurance plans each provider accepts. A coordinator at each clinic works to ensure that this information is updated regularly. A representative from another large retail clinic chain said that the chain provides patients in need with a list of primary care physicians and community health centers in the clinic’s area. There are no published data on the extent to which retail clinics are successful in helping patients obtain access to primary care providers. One expert at a health care quality organization noted that there is a lack of clarity about

retail clinic responsibilities if a patient needs ongoing management but lacks a primary care provider or other responsible clinician.

Referrals from retail clinics to other sites of care are also needed when patients seek care beyond the scope provided by the retail clinic, and one representative from a consumer organization expressed the concern that such referrals might not be available. Retail clinics that are owned by or that have a formal relationship with a larger health care system may find it easier to make such referrals than independently owned retail clinic chains, which may face a formidable challenge in trying to establish ongoing relationships that allow for these types of referrals in the multiple markets they serve. A representative from the Philadelphia Department of Public Health also noted that, although retail clinics may help to lessen the surge at busy city clinics, many patients visiting retail clinics may have chronic illnesses and require a referral to more-appropriate care.

Primary care offices do sometimes refer their patients to retail clinics. However, as one representative from a retail clinic operator pointed out, current economic incentives do not offer primary care providers motivation for referring patients to a lower-cost provider, such as a retail clinic. Therefore, most physicians do not make such referrals. In contrast, a representative from one major health care provider that has a formal, established relationship with a retail clinic chain noted that when its primary care practices are too busy to see a patient for a same-day appointment, patients may be sent by a nurse at that practice to a retail clinic. Another representative from a retail clinic operator estimated that, in the market where that organization has been operating the longest, 10–15 percent of patients come through referrals from primary care offices.

Patient Follow-Up

One expert stated that many retail clinics have a process in place to follow up with patients after they visit, contacting them to see if they are improving—a service that is not common among primary care offices. A representative from one of the physician organizations we interviewed stressed the need for retail clinics to provide 24-hour on-call backup, which would enable patients to access follow-up care if they experience a problem related to a recent visit, such as a negative reaction to a medication prescribed by the retail clinic provider.

Electronic Health Records and Interoperability

Electronic health records are in widespread use in retail clinics; however, a key concern in retail clinics and in health care more broadly is the need for interoperability of the many different systems in use. Representatives from physician organizations and from retail clinic operators noted that the use of electronic health records could significantly improve both the coordination of care and handoffs to primary care offices after retail clinic visits. For example, one interviewee from the American College of Physicians noted that, beyond just granting primary care physicians access to clinical notes from retail clinic visits, it would be helpful if electronic health records enabled the next stage in information sharing: providing retail clinics with access to patients' primary care records so that clinically pertinent information (such as allergies and comorbidities) would be readily available to the retail clinic provider. Similarly, a representative from the American Academy of Pediatrics said that interoperability of electronic health records, which allows for information sharing, could help allay some of the concerns that physicians have about coordination of care. One representative from a retail clinic operator stated that the organization is currently working toward an electronic health

record platform that will be able to share information in the future. Retail clinic chains that are owned by hospitals, physician groups, or health care systems may already have interoperable electronic health records that allow for this type of sharing within their system.

However, representatives from retail clinic operators identified significant barriers to achieving broad interoperability, since shared access requires that the retail clinic's electronic health record interface with the multiple systems used by area physicians. Achieving this level of information sharing with multiple electronic health record platforms would require overcoming technical incompatibilities between systems and demand significant resources. These issues may be alleviated in the longer run by the state health information exchanges that are being funded under the Health Information Technology for Economic and Clinical Health Act as part of the American Recovery and Reinvestment Act of 2009 (Office of the National Coordinator for Health Information Technology, 2010). These exchanges are designed to achieve the appropriate and secure exchange of health information among health care providers and other organizations. Meanwhile, one representative from a retail clinic operator noted that although the operator's electronic health record system is able to send notes to other providers electronically, the physician's office often does not have either an electronic health record or the capacity to receive these communications. So, the clinic's electronic health record system automatically sends a fax to the doctor's office instead.

One representative of retail clinic operator noted the difficulty of identifying an off-the-shelf electronic health record specifically designed for use in retail clinics. In retail clinic systems that allow local sites to select their own electronic health record, the ability to use the information the system generates to monitor quality may be limited. One representative from a retail clinic operator reported that the organization's main office receives only basic information from clinic sites, such as number of patients, basic demographic information, and insurance type.

One key component in the new definition of *meaningful use* toward which all health care providers in the nation are expected to be working is the expectation that patients will have direct, online access to their medical records (Health Information Technology Policy Committee, 2009). MinuteClinic allows its patients to link their records to their Google Health or Microsoft HealthVault accounts, and one representative from a retail clinic operator noted that the operator plans to bring a patient portal online in 2010 (MinuteClinic, undated).

Protocols

A defining feature of retail clinics is their use of protocols for delivering care, such as those used to determine whether antibiotics are appropriate for patients with sore throats. A variety of experts we interviewed noted that all retail clinics with which they were familiar used protocol-based approaches that, in many cases, were based on templates for each complaint that patients are likely to present at a retail clinic. Several experts also indicated that this protocol-based approach, which likely results in significantly higher use of guideline-based care than is found in other settings, may stem in part from the incorporation of diagnostic and treatment protocols into retail clinics' electronic health record applications. Some of these systems require that providers document deviations from protocol-based care in the electronic health record, which, again, is likely to increase adherence to guideline-based care.

At the same time, concerns have been raised about the use of protocols. One expert from a quality measurement organization noted that there is a lack of clarity regarding both the level of

rigor involved in developing these protocols and the extent to which they are based on evidence rather than expert opinion. In one survey performed by the American Academy of Pediatrics, many pediatricians who reported having a retail clinic in their area disagreed with the retail clinic's treatment protocol (American Academy of Pediatrics, Division of Health Services Research, 2008). As Bohmer (2007) notes, "Critics worry that important, albeit rare, diagnoses and opportunities to address other concomitant health issues may easily be missed by nurse practitioners following rigid protocols." Some writers have argued that increased physician involvement has helped mitigate some of these concerns (Pollert et al., 2008; Robeznieks, 2007).

The approval and use of protocols and the documentation of deviations from their guidance vary across retail clinics. A representative from one health system-owned chain noted that all of the chain's protocols are approved by its quality-management committee and have been embedded in its electronic health record system to present structured choices to providers. If patients need care that is not addressed by a protocol, the retail clinic provider is required to call the medical director before delivering care. In Massachusetts, state officials review the clinical protocols prior to their use in retail clinics. However, the use of guidelines that are embedded in an electronic health record is not universal, and one retail clinic expert noted that some operators, particularly those run by hospital groups, do not use them.

Embedding Clinical Guidelines into Electronic Health Records

The Institute for Clinical Systems Improvement (ICSI), a nonprofit organization composed of health plans and physician groups, has published a series of clinical guidelines. MinuteClinic has incorporated the ICSI pharyngitis (sore throat) guideline into its proprietary electronic health record system. When a nurse practitioner sees a patient with a sore throat, the electronic health record protocol guides him or her through a standardized set of ICSI guideline clinical history questions and elements of the physical examination. For example, the guideline includes questions about the onset of the sore throat and about whether the patient has experienced a fever, abdominal pain, a runny nose, a cough, or vomiting. The physical exam includes checking whether the tonsils have an exudate (a whitish coating) and whether the patient has a rash. This history and these physical elements are documented using a combination of electronic checkbox selections, drop-down menus, and free text. The protocol forces the provider to the next step in the guideline, for example presenting, in the case of pharyngitis, first-line antibiotic choices (if a prescription is indicated). If the provider chooses to provide care outside the protocol or if additional documentation is warranted, free-text fields can be used to capture this information.

Quality Measurement

Quality measurement and reporting have become increasingly common features of the health care landscape. Although retail clinic operators may conduct their own internal quality measurement activities, there is comparatively little external reporting of these measures. One of the few such efforts, undertaken by Minnesota Community Measurement, focuses on public reporting of a variety of measures for ambulatory care practices. The organization's website reports measures of antibiotic prescribing for patients with sore throats and includes information from MinuteClinic and from primary care offices and urgent care centers (Minnesota Community Measurement, 2009).

Two of the experts we interviewed remarked that, whenever possible, it would be preferable to apply the same quality measures to retail clinics that are used in other ambulatory care settings. However, many of the measures currently in use were developed for the National Committee for Quality Assurance's Healthcare Effectiveness Data and Information Set (HEDIS) effort and, because they were designed to assess care for an ongoing panel of patients, would not apply to patients receiving only episodic care at a retail clinic (National Committee for Quality Assurance, undated). The measures evaluate such items as the delivery of preventive care or the longer-term provision of appropriate care for patients with diabetes. Interviewees felt that some HEDIS measures, such as those that relate to the appropriateness of antibiotic prescribing for children with ear infections and adults with bronchitis, could be applied to retail clinic visits.

Another expert noted that, to the extent that retail clinics expand their scope of care into chronic disease management, many of the standard long-term patient management measures would apply to the care they provide. However, one quality measurement leader at a health plan commented that, if retail clinics begin to deliver some of the types of care measured in HEDIS, then health plans would need to change their measurement strategies so that primary care physicians would not be penalized for failing to provide services that patients are receiving at retail clinics.

A variety of individuals we interviewed suggested potential new measures for use in retail clinic settings. One expert suggested assessing the utilization of services at retail clinics for patients over time, which could help analysts understand whether patients are relying on retail clinics inappropriately. Another noted the potential for assessing whether the retail clinic provider conducts medication reconciliation prior to starting a patient on a new medication, a process that identifies any potentially dangerous drug interactions. Although this practice is not yet common in other ambulatory settings, there is a movement toward assessing the extent of medication reconciliation throughout the health care system. An interviewee from a national quality measurement organization suggested monitoring prescribing patterns at retail clinics for appropriateness, citing concern that having a pharmacy affiliation could provide an incentive to overprescribe.

Finally, one expert from a national quality monitoring organization believed that, with the ubiquitous use of electronic health records, retail clinics should readily be able to monitor the quality of care they provide. However, it remains unclear how widespread and routine this monitoring practice is. One representative from a retail clinic operator noted that the operator has a consistently applied process for reviewing charts to examine the quality of care provided. An interviewee from a different quality measurement organization noted the need for standardized quality reporting to external organizations. One quality measurement expert said that because many retail clinics bill insurance companies for their services, those payers could require reports on quality measures as a condition of participation. However, this individual was unaware of any payers that currently do so.

Handoffs as a Quality Measure

A representative from the National Quality Forum, a health care quality measurement organization, noted the need for retail clinics to use measures that assess the handoff of information to primary care physicians after retail clinic visits. This individual noted that these measures, which are currently being developed, are needed to specifically reflect both the proportion of visits after which retail clinics send clinical notes to the primary care provider and the proportion of visits after which receipt of notes by the primary care office was documented. The documentation of the receipt of handoff information was emphasized by several other individuals we interviewed, many of whom pointed out that (1) clinical notes emailed or faxed to the primary care office are inadequate unless their receipt is documented and (2) reimbursement by insurers for retail clinic visits could be made conditional on this documentation.

One executive from a private insurance company noted that handoffs could potentially be measurable but that current data systems are not designed to capture this information. This health plan has considered requiring retail clinics to commit to providing information back to primary care providers as a condition of participation in the plan. Without some external incentive, this individual felt it was unlikely that such handoffs would happen consistently. Finally, another expert argued that retail clinics should not receive an incentive or bonus payment for this care coordination, implying that it should be an expected part of the care they provide.

Concerns about communication between retail clinics and primary care physicians are part of a broader discussion about the communication problems in health care more generally. A lack of communication is common between referring physicians and specialists and between hospitalists and primary care physicians. One study, for example, showed that up to 55 percent of specialists did not communicate results back to the referring provider (Mehrotra et al., 2010).

Oversight

State laws delineate requirements for physician oversight of nurse practitioners. There is considerable variation across states, and each retail clinic operator has its own policies for meeting state requirements and for ensuring quality. For example, one health system with a retail clinic affiliation requires that every clinical note written by a nurse practitioner at a retail clinic be sent to a supervising physician, who must sign off within 24 hours. A different health system is working to create a one-to-one relationship between its physicians and the nurse practitioners in its affiliated retail clinics—a goal that stems from the belief that feedback may be better accepted in the context of an ongoing relationship.

Representatives from retail clinic operators described a variety of practices for quality oversight. One chain uses a two-part approach. In the first part, nurse practitioners conduct monthly peer-to-peer review of one another's charts, using a checklist that asks them to review such items as appropriate diagnosis and medications. This information allows the company to assess rapidly whether a particular nurse practitioner is or is not providing appropriate care. The second part of the quality assurance approach has a collaborating physician review the care provided by each nurse practitioner on a biweekly basis regardless of whether this review is required by state regulation. Any

concerns resulting from this review are forwarded to the company's regional medical directors. Representatives from two other retail clinic operators described a graduated process in which all charts are reviewed early in each nurse practitioner's tenure with the company. The extent of chart reviews during the later phases of employment varies, but there is always a minimum review of 10 percent of each nurse practitioner's charts. One company noted that it partners with a different health care system in each market it serves to provide independent physician oversight. In some cases, the results of these chart reviews are the basis of performance incentives for their nurse practitioners.

Emerging Trends

Both our interviews and our examination of recent news articles yielded information on potential new directions for retail clinics. The emerging trends we identified are related to expanding retail clinics' scope of services to include care for additional conditions, opening in new locations, expanding partnerships, and pursuing technological innovation. However, it is too early to know whether these trends will take hold and become productive new business models for retail clinics.

Chronic Disease Management

The emerging trend most commonly mentioned during our interviews was the management of chronic disease at retail clinics. A representative from one retail clinic operator noted that this is a logical extension of current services, since midlevel providers, such as nurse practitioners, are trained to offer this type of care, and it can be cost-effective for them to do so. At the same time, this individual stated that retail clinics could not address all aspects of chronic disease management: Some types of care would require referrals to physicians, more-extensive testing than is available in retail clinic settings, or be better addressed in the context of an ongoing provider-patient relationship. Another retail clinic representative described the operator's organizational approach to expanding into screening for and treatment of hypertension and potentially managing asthma care. A representative of a health system that owns retail clinics described its hope of providing care for mild hypertension and hyperlipidemia. Another representative of a health system with formal ties to a retail clinic operator reported discussing the possibility of retail clinics monitoring patients who are taking blood thinners. After our interviews were completed, MinuteClinic announced, on April 1, 2010, the introduction of a new service to provide routine testing, monitoring, and educational support for patients with diabetes, hyperlipidemia, hypertension, and asthma (Merchant Medicine, undated-a).

The general argument for expanding retail clinic services into these areas is that patients can be monitored on a walk-in basis when it is convenient for them or when they are having a problem and that this accessibility will improve health outcomes. Several individuals we interviewed also noted the parallel of this type of care to many disease management programs, which are typically run by nurses, and that models of chronic disease care that help empower patients to engage in better self-care are an inherent part of nursing training and can be a cost-effective way to maximize nurse practitioners' skill sets while expanding the scope of services offered to patients.

At the same time, this trend creates concerns about the fragmentation of care—a particular source of worry for one of the physician organizations we spoke with. For example, routine

monitoring of blood pressure, cholesterol, or blood sugar may be done at a retail clinic, but patients may need medication adjustments or further counseling from their physician. The results of the retail clinic testing might not be available at the primary care office unless the communication challenges discussed in previous chapters are addressed. In addition, as one health system representative suggested, this trend could lead to duplication of care and increased costs. If retail clinics focus on just a subset of chronic conditions, such as mild hypertension, patients must self-triage to the most appropriate site of care—a decision that may require clinical knowledge that they do not possess, such as understanding the distinction between mild and moderate hypertension. Finally, if the routine monitoring done at the retail clinic indicates normal results or no unexpected changes, there could be missed opportunities to identify related problems that would normally be addressed in a broader-scope primary care visit.

This issue received considerable attention at our expert panel meeting, where the distinctions between screening, monitoring, and management of chronic diseases were highlighted. Participants expressed far greater comfort with using retail clinics as sites for screening to identify new conditions or for routine monitoring than for the provision of ongoing management for chronic conditions.

Other Expansions to the Scope of Care

Retail clinics also report current or planned expansions of their scope of care to include a variety of services beyond care for minor illnesses. Along with the chronic disease management just described, such planned services include acne treatment, steroid injections for allergies, osteoporosis treatment, treatment of minor cuts that can be sealed with Dermabond rather than sutures, and managing medication therapy for individuals exposed to latent (inactive) tuberculosis (Roizen and Oz, 2009).

One health care system that owns retail clinics is currently developing a program to provide travel immunizations in its clinics, and it is already offering a weight-loss program. Further, it is leveraging its joint arrangement with the retail clinics to begin having retail clinicians order treatments for patients who are due for preventive care services, such as mammograms or tetanus vaccines. A representative from this organization noted that, because many of its physicians are covered by pay-for-performance arrangements, using the retail clinic providers to increase the likelihood of patients receiving these services may lead to financial benefits for the physicians and thus reinforce their relationship with the retail clinics.

Other joint arrangements between health care systems and retail clinics are being used to provide early-morning lab draws and to have retail clinic providers make phone calls to follow up with Medicare patients who were recently discharged from the hospital. These phone calls are intended to monitor patient progress and decrease readmission rates.

New Sites of Care

There is a growing overlap between worksite clinics and retail clinics. The scope of services offered at employer-based clinics is typically broader than at retail clinics, and some clinics employ physicians rather than solely nurse practitioners or physician assistants, although some employer-based clinics focus only on minor conditions. Employers seek to open worksite clinics because they hope to

minimize employee time away from work, and they often believe that the clinics can provide high quality care efficiently.

In November 2009, Careworks Convenient Healthcare, part of Geisinger Health System, announced the opening of a clinic at a major employer site that will be staffed by a physician assistant and provide health care to employees free of charge (Careworks Convenient Healthcare, 2009). Walgreens' Take Care Health System comprises more than 300 in-store retail clinics and an equivalent number of employer-based clinics (Walgreens, 2009).

Employer-based clinics are receiving attention from human-resources consulting firms: A 2009 report from Mercer indicates that 10 percent of all surveyed employers are considering offering a primary care clinic onsite (Careworks Convenient Healthcare, 2009), and Watson Wyatt estimated that 32 percent of employers with more than 1,000 employees would have an on-site clinic by 2009 (Watson Wyatt Worldwide, 2008). In addition, a representative from a health system that owns retail clinics noted the advantages of employer-based clinics, including that they provide significant value to employers while covering overhead costs for clinic operations.

Expanding Partnerships

Retail clinics continue to form partnerships with health care systems. In late 2009, for example, MinuteClinic and Allina Hospitals & Clinics, a Midwestern health care system, announced a new partnership that will allow for more-coordinated care between the two organizations, improving both medical oversight and the interface between the two organizations' electronic health records (PR Newswire, 2009).

One expert we interviewed noted the potential for retail clinics to partner with pharmacists in the stores in which the clinics are located. In some places, incorporating pharmacists into ongoing care, particularly for chronic disease medication counseling, is a reimbursable care activity that has been shown to significantly improve patient outcomes (Rothman et al., 2003). Finally, as noted in an earlier chapter, community health centers have also begun to establish partnerships and, in some cases, to open and operate their own retail clinics to better serve their patient populations.

Technological Innovations

News reports have suggested that retail clinics could evolve into sites used to access care via telemedicine. In this model, the retail clinic would be staffed by a trained medical attendant with diagnostic equipment and an electronic connection to offsite physicians, who would be responsible for diagnosis and treatment. This model is currently being developed by UnitedHealth Group, a health insurance company and Cisco Systems, an information-networking vendor, as part of a national telehealth network to connect patients in underserved areas with physicians (Goedert, 2009). Another potential innovation is the use of interactive patient-interview software that obtains relevant information from the patient, asks appropriate follow-up questions using a branching logic system, and then creates a summary of relevant information for the clinician before he or she meets the patient. A representative from a retail clinic operator cited this model as a probable new direction for the industry.

Increasing Transparency

A 2009 web seminar presented by MedScape from WebMD suggested that, in the future, retail clinics will begin posting online treatment outcomes and rates of complication (Kane and Aburmishan, 2009). In addition, one major component of the Patient Protection and Affordable Care Act (P.L. 111-148) promotes increased price transparency, an area in which retail clinics have been leaders within the health care industry. It is unclear what impact efforts to expand price transparency may have on retail clinic competitiveness vis-à-vis other providers.

Looking Forward

Although much has been learned about retail clinics, the published literature in the field is still quite sparse: Our review identified only 18 relevant research articles published in peer-reviewed journals to date. The first part of this chapter therefore examines a set of outstanding questions that require further research. The issues these questions address highlight the need for a better understanding of the care that retail clinics provide and the impact of these clinics on the U.S. health care system.

The second part of this chapter addresses federal policies related to retail clinics. We focus on several key policy issues that are likely to have an impact on retail clinics and the care they provide. The chapter concludes with considerations for federal policymakers.

Outstanding Questions

How Many People Visit Retail Clinics?

Accurate estimates of the number of people who seek care at retail clinics and of how many visits they make are essential to gauging the impact of retail clinics on the U.S. health care system. Our work shows the wide variation in existing estimates of utilization (see Table 2.1).

There are a number of potential reasons for this variation: including the fact that surveys were conducted at different times within a four-year period when retail clinics were experiencing rapid growth, the use of different survey modes (i.e., Internet surveys vs. telephone panels), and the use of different survey questions. In addition, although some of the surveys provided a brief description of retail clinics, not all respondents may have accurately identified the clinics when thinking about their responses. For example, some individuals may have thought they visited a retail clinic if they received a flu shot at a pharmacy. Collectively, these differences leave us without an accurate estimate of the number of people who visit retail clinics and the total number of visits they make.

The Best Sources of Information. Ideally, visit information would be obtained by pooling patient information from all retail clinic operators across the country. This would allow for estimates of both the total number of visits made to retail clinics and the number of unique patients who use the clinics. Potential secondary sources of information include nationally representative household surveys. However, because retail clinics constitute a small portion of all health care use, a large sample would be needed to produce accurate estimates, and even the country's largest nationally representative surveys, such as the National Health Interview Survey, are unlikely to capture enough retail clinic visits to allow for analysis (see Appendix E). A third approach is to use a provider-based survey, such as the National Ambulatory Medical Care Survey. This could produce accurate estimates of the total number of visits made to retail clinics, although the cost of adding clinics to the

sampling frame may be prohibitive, and the survey would not generate estimates of the number of unique patients seen at retail clinics.

Regardless of the data source, ideally, information would be available in a way that would permit descriptions of retail clinic utilization by patient sociodemographic characteristics (e.g., age, race/ethnicity, insurance status, region of country); the reason for the visit; and clinical characteristics, such as comorbidities.

In the Future. Despite recent cutbacks in the industry, the number of retail clinics is expected to grow over time, and the scope of services they provide may well expand. This is likely to have significant implications for utilization patterns, including the number and types of individuals seeking care at retail clinics and the conditions for which they seek care.

What Is the Impact of Retail Clinics on Health Care Utilization and Costs?

Theoretically, retail clinics could help decrease the demand for emergency department services for nonurgent conditions. In addition, they could help provide some services that are typically provided by primary care providers. Initial studies indicate that, for the same conditions, retail clinics result in lower costs on a per-visit basis than do emergency departments or physician offices. Therefore, if retail clinic visits replace emergency department or physician office visits on a one-to-one basis, overall health care costs should decrease, even if utilization remains the same.

However, the convenience of retail clinics might lead people with minor illnesses, such as colds, to seek medical care when they previously would have cared for themselves without medical attention. If retail clinics induce this additional demand for medical services, they may contribute to increased overall health care costs. Nonetheless, the only study that has examined the impact of retail clinics on health care utilization did not uncover evidence of induced demand in a privately insured population.

The Best Sources of Information. One approach to determining the impact of retail clinics is to compare health care utilization trends in communities with retail clinics to those without retail clinics. Such research could focus on, for example, all enrollees of a single health insurance plan. This research should place particular emphasis on the extent to which retail clinics can decrease the use of emergency departments for minor illnesses, the relationship between retail clinic use and their overall utilization and costs of care, and the question of induced demand.

In the Future. Primary care physician shortages and increasing health care costs are expected to be growing problems in the health care system. If retail clinics can provide increased access to care at a lower cost than in other settings, they may be able to help alleviate these problems; however, the nature and extent of their contribution is currently unknown.

What Is the Impact of Retail Clinics on Preventive Care and Chronic Disease Management?

Because most retail clinic providers lack a record of the other care that their patients have received, they may be less likely to identify and deliver missing preventive care and to make appropriate adjustments in chronic disease medications. Therefore, retail clinic visits may create lost opportunities for delivering preventive services and providing chronic disease management. Only one study has evaluated the impact of retail clinics on preventive service utilization, and it found no adverse impact. No studies have evaluated the relationship between retail clinic use and chronic disease management. Further research on both of these questions should examine a range of populations and communities and different retail clinic ownership models.

The Best Sources of Information. Studies to assess the impact of retail clinic use on the appropriate delivery of preventive services and chronic disease management will need to rely on information that captures the full range of health care utilization and quality measures for a population across all the providers used. Studies of populations covered by a single health insurer with comprehensive claims data, quality measures, or both captured for *all* enrollees would be ideal. Health information exchanges, many of which are in the early phases of development, may provide an additional source of relevant data in the longer term.

In the Future. With retail clinics planning significant expansions in both their number of locations and their scope of services (including chronic disease monitoring), retail clinic impact on preventive care and chronic disease management is likely to become a more significant concern in the future.

What Is the Quality of Care at Retail Clinics?

Physician organizations have raised concerns about the quality of care that retail clinics deliver. Several studies have demonstrated that the care provided at retail clinics is consistent with evidence-based guidelines that apply to the limited scope of care they provide. However, these studies have been limited to MinuteClinic and other retail clinic operators located in Minnesota, and the extent to which their findings are generalizable to the entire industry is not clear.

The Best Sources of Information. Health insurance claims data or retail clinic medical charts are the ideal sources of information. The quality of care at retail clinics should be compared to other ambulatory-care providers, such as physician offices. Continued research into this topic is critical to ensuring that the care patients receive at retail clinics continues to match that received in other settings. Studies that are national in scope, that examine care across a spectrum of retail clinic operators, and that examine measures that assess quality in both processes and outcomes of care are required.

In the Future. If retail clinics continue to expand into chronic disease management, the inclusion of related quality measures will be increasingly important.

What Is the Impact of Retail Clinics on Fragmentation of Care and Physician-Patient Relationships?

Retail clinics' potential to increase fragmentation of care is a common concern because clinic utilization increases the number of unique providers who care for a patient. These providers may have limited access to important aspects of patients' medical histories. If patient visits to retail clinics decrease the use of primary care physician services, relationships between patients and these physicians may be undermined. The underlying model of primary care is premised on the belief that strong patient-provider relationships lead to better outcomes. However, one possible benefit of retail clinics is that they could serve as a point of entry into primary care for patients who do not have an existing primary care relationship. Research has documented that a substantial proportion of patients who visit retail clinics do not have primary care providers.

The Best Sources of Information. Studies that address fragmentation and the quality of relationships may use surveys of patients and physicians. Another approach is to examine claims data to compare the utilization of primary care services among patients who visit a retail clinic with those who do not visit a retail clinic. Such studies would benefit from including retail clinics that operate under multiple business models: This would allow researchers to study the relationship between fragmentation and retail clinic use in both independently operated retail clinics and in those that are operated by health care organizations that also provide primary care.

In the Future. As retail clinic ownership models continue to change, health information technology comes to support greater communication between providers, and primary care delivery evolves, issues regarding fragmentation and patient-provider relationships may shift as well. Such changes will affect the nature of the research questions that will need to be addressed.

How Do Retail Clinics Affect Office-Based Primary Care Practices?

Visits for minor illnesses that can be treated quickly may be more profitable for primary care practices than visits for chronic disease management. Therefore, if retail clinics divert visits for minor illnesses away from primary care, the clinics may pose a threat to the financial viability and well-being of primary care practices. However, retail clinics could potentially increase primary care revenue by generating referrals to practices and by allowing physicians to focus on sicker patients with more-complex conditions whose care yields higher reimbursements. It is also possible that primary care practices may respond to the threat of retail clinic competition by offering patients greater convenience and access to care by, for example, expanding their hours of operation and offering walk-in services.

As in the case of patient-provider relationships, the impact of retail clinics on primary care practices will depend on the business models that govern their interactions. Primary care providers that have established partnerships with retail clinics may benefit from a growing use of these clinics. The impact of the growth of independent retail clinic operators is less certain.

The Best Sources of Information. Surveys and revenue impact studies are the ideal ways to monitor the impact of retail clinics on primary care practice operations and finances.

In the Future. Efforts to support the medical home model, changes in primary care physician reimbursement, and the primary care shortage will affect the impact of retail clinics on primary care practices. In addition, as retail clinics expand their range of preventive and chronic disease management services, it will be crucial for health plans to change their quality measurement strategies both to account for care received at multiple sites and to avoid penalizing primary care physicians for failing to provide services that patients receive elsewhere.

Federal Policy and Retail Clinics

This section describes a set of key federal policies that affect retail clinic operations.

Medicare and Medicaid

Because Medicare and Medicaid are the payers for more than one-third of all health care delivered in the United States, their policies affect every provider in the country, including retail clinics (Kashihara and Carper, 2009). However, because a relatively small fraction of retail clinic patients are enrolled in either program, the influence of Medicare and Medicaid on the retail clinic industry will be felt primarily through private-payer efforts to parallel Medicare policies. In the future, especially with planned expansions in the scope of care provided at retail clinics, Medicare and Medicaid enrollees may constitute a larger proportion of clinic patients.

Any increases in Medicare reimbursement rates for care provided by nurse practitioners, whose services are typically reimbursed at 85 percent of the physician rate for similar services, may encourage the growth of retail clinics. However, with so few Medicare beneficiaries currently seeking retail clinic services, such a shift would likely have an impact on retail clinics only if private insurers

followed suit. CMS has recently created a Medicare place-of-service code that is specific to retail clinics, and this will permit analyses of retail clinic expenditures for Medicare beneficiaries.

Like Medicare, Medicaid tends to reimburse nurse practitioners at a lower rate than physicians, even for the same services. Under the recently passed Patient Protection and Affordable Care Act, Medicaid reimbursements for primary care physician services will increase to 100 percent of the Medicare rate in 2013 and 2014 (P.L. 111-148). Because nurse practitioners and physician assistants will not receive this increase, this policy change will likely have little direct impact on retail clinics.

In our stakeholder interviews, representatives from retail clinic operators stated that Medicare and Medicaid administrative policies are also a barrier to their participation in these programs. Simplifying these policies may be something for federal policymakers to consider.

Quality and Care Coordination

CMS is increasingly assessing quality of care and publicly reporting quality measures for many health care settings. Quality data related to hospitals are publicly reported on CMS' Hospital Compare website, and private physician offices are eligible for incentive payments if they meet quality reporting standards under CMS' Physician Quality Reporting Initiative. To date, retail clinics have not been included in quality reporting initiatives sponsored by either the federal government or private insurers. Although many existing quality measures are not applicable to retail clinics because of the limited scope of care they provide, some measures—such as those related to appropriate antibiotic use—are relevant and could be used under programs that incentivize providers to report or improve their performance on such measures. The National Quality Forum is currently developing measures related to care coordination (National Quality Forum, undated), and, if these final measures apply to care provided at retail clinics, policymakers may wish to consider including them in relevant new initiatives.

Electronic Health Records

The adoption and use of health information technology is a significant focus of funding under the American Recovery and Reinvestment Act of 2009. The Office of the National Coordinator for Health Information Technology has issued standards for the meaningful use of electronic health records, and CMS will be providing incentive payments to eligible professionals who meet these standards. Because the incentive payments under Medicare are limited to physicians and exclude nurse practitioners and physician assistants, they do not apply to retail clinics. However, nurse practitioners are eligible for incentive payments under the Medicaid incentive program if they meet specific patient-volume criteria.

Electronic health records are already used at almost all retail clinics, so extending these incentives to retail clinics will not encourage the adoption of electronic health records. However, the incentives may influence the ways in which electronic medical records are used. In keeping with the meaningful use standards, these incentives could be used to ensure that clinical information is exchanged with other health providers or to enable patients' timely access to their own electronic health information. However, if the goal of the incentives is to encourage adoption and use among providers who lack the financial resources of a larger organization, it might be appropriate to exclude retail clinics from these incentives. Currently, physicians who furnish nearly all of their services (including outpatient care) in a hospital setting are excluded from these incentive payments.

Improved electronic health record interoperability could help address some of the key concerns that other providers have raised about retail clinics—particularly the need for improved care

coordination and communication with primary care providers after a patient visits a retail clinic. The implementation of state health information exchanges and other federal health information technology policies may help in this regard.

The Supply of Nurse Practitioners

Several factors may increase the demand for nurse practitioners in the future. First, if the number of retail clinics grows in the coming years, the number of nurse practitioners required to staff these clinics will also rise. Second, nurse practitioners are increasingly being utilized in other care settings, including both outpatient and hospital-based care; they are also frequently employed in primary care practices in which teams of medical providers care for a panel of patients. Finally, the expansion of insurance coverage under health reform may increase the demand for primary care and further strain the supply of nurse practitioners. This may parallel the experience in Massachusetts, where, after universal coverage passed, wait times for primary care appointments increased significantly (Massachusetts Medical Society, 2009; Sack, 2008).

The recently passed Patient Protection and Affordable Care Act includes a number of programs to increase the number of nurse practitioners, including both initiatives to retain nurses in clinical practice and demonstration grants for nurse practitioner training programs. In creating increased capacity for nurse practitioner training, policymakers may wish to consider the trade-offs between having an expanded supply of nurse practitioners working in retail clinics, where they would primarily treat minor illnesses, and having them work in primary care practices, where they would engage in a broader scope of practice.

Care for Underserved Communities

The Department of Health and Human Services, through the Health Resources and Services Administration (HRSA), plays a critical role in providing access to care in underserved communities by supporting Federally Qualified Health Centers. Currently, Federally Qualified Health Centers can operate their own retail clinics; in the future, policies could be expanded to allow such centers to partner with independent retail clinic operators to provide care for their patients. Just as the federal government supports physicians and health centers to encourage the provision of care in underserved communities, incentives for retail clinics to open in such communities could be created. Under the Healthy Food Financing Initiative, the federal government plans to support the opening of supermarkets in distressed communities (U.S. Department of Health and Human Services, 2010), and these supermarkets could potentially serve as additional sites for retail clinics, providing an opportunity for partnership in medically underserved areas.

In addition, HRSA also designates both HPSAs and MUAs, and these designations may have an indirect effect on retail clinics. For example, Texas allows a higher number of nurse practitioners per supervising physician in HPSAs than in other areas. Such policies could reduce retail clinic operating costs in shortage areas and encourage them to locate there.

Demonstration Projects

Demonstration projects that do not explicitly target retail clinics could nonetheless have an effect on them if they are scaled up to full implementation. Medical home demonstration projects are typically accompanied by payment changes, such as providing the medical home with a capitated, risk-adjusted payment (Merrell and Berenson, 2010). The extent to which retail clinics are integrated into medical homes is likely to depend both on whether the clinics are owned by physician groups

that may themselves constitute a medical home and whether the capitated rate includes the services that retail clinics provide. There are also a number of payment reform pilots and demonstrations, such as accountable care organizations, capitated payments, and bundled payments for episodes of care. Organizations receiving these types of payments may divert patients to retail clinics because care provided in retail clinics is less expensive than in other settings. However, in an effort to retain revenue, providers might discourage patient utilization of services from providers outside the system. Therefore, the effect of many demonstration projects on retail clinics is likely to depend on the extent to which retail clinics are incorporated into the care team.

The Patient Protection and Affordable Care Act

The impact of insurance expansions on retail clinics and on the broader health care delivery system remains unclear. There will be an influx of newly insured individuals, so primary care providers will likely experience increased demand for their services. At the same time, the nation will continue to face a growing shortage of these providers. This could lead to greater demand for retail clinic services, as happened in Massachusetts after that state passed universal coverage. Further, if many newly insured individuals enroll in high-deductible insurance plans, these individuals may be more sensitive to the price of health care services, which may lead to increased retail clinic use.

Federal Opinion on State Policy Regarding Retail Clinics

The Federal Trade Commission (FTC) has responsibilities in the areas of competition and consumer protection, and, between 2007 and 2010, it provided, via three letters, comments to state legislators and executives on bills that address retail clinics in three states: Illinois, Kentucky, and Massachusetts (DeSanti et al., 2010; Ohlhausen et al., 2007, 2008). The three FTC advocacy letters emphasized the potential benefits to consumers of retail clinics and argued that retail clinics should not be held to higher or different standards than other health care clinics. One letter stated that regulations might put retail clinics “at a competitive disadvantage without offering countervailing consumer benefits” (Ohlhausen et al., 2007). These FTC opinions are not binding, but, if state officials opt to pursue policies contrary to FTC opinion, the FTC can decide to legally challenge laws or regulations that it deems anticompetitive.

The proposed Massachusetts regulation would have required retail clinics to submit advertising materials to the Massachusetts Department of Public Health for approval. The FTC argued that, because this prescreening requirement addressed only retail clinics, it would impose significant burdens on retail clinics and limit consumers’ ability to benefit from truthful advertising. The Massachusetts Department of Public Health did not adopt the provision.

The proposed Illinois bill included provisions that would have limited insurers’ use of differential copayments between physician offices and retail clinics, prohibited retail clinics from being located in a store that sells alcohol or tobacco, and prohibited retail clinics from advertising that compares the costs of services at retail clinics with the costs at other care sites. The FTC argued against these potential requirements on the grounds that they would place retail clinics at a competitive disadvantage without a clear, justifiable rationale. The bill was not passed into law.

In Kentucky, the proposed regulation limits the scope of care that can be provided at a retail clinic, prohibits retail clinics from treating people with chronic or recurrent illness, requires a waiting room or area, and charges an initial and annual licensure fee. The FTC has argued against provisions in the regulation that apply only to retail clinics and therefore limit competition and may raise health care costs. This regulation was still pending in June 2010.

Implications

The results of our work have a number of implications for federal policymakers to consider, many of which were discussed at our expert panel meeting. These implications are described in the following three sections summarizing key considerations.

Design Policies to Encourage Care Coordination and Decrease Fragmentation

Several current initiatives—patient centered medical home demonstration projects, accountable care organizations, and increasing use of health information technology—are likely to change the health care landscape in the near future. Their different approaches can potentially be leveraged to increase care coordination and decrease fragmentation in patient care. Such initiatives can also be designed to include retail clinics. Federal policies can encourage this integration by including retail clinics in demonstration projects, creating incentives for information transfer between providers (including via interoperable electronic health records), and including care coordination in quality measurement efforts. At the same time, such policies can acknowledge that care coordination may be less important in the case of minor acute illnesses than in the management of chronic disease.

Identify Key Lessons Learned from Retail Clinic Operations and How These Lessons Can Be Applied in Other Health Care Settings

Retail clinics have defined a niche in the health care system that centers on convenience and customer service. Growth in the industry to date appears to have been driven largely by high levels of patient satisfaction. Because many patients—particularly those with insurance—are free to seek the care that best meets their needs, the expansion of retail clinics geographically and into new areas of care likely reflects previous unmet patient need. This creates opportunities for the federal government to identify approaches that may effectively improve care in other settings and to design policies to support the expansion of these approaches.

Ensure That Retail Clinics Are Treated in the Same Manner as Other Health Care Providers

The FTC's approach to retail clinics introduces an important consideration: Unless there are substantial countervailing reasons, retail clinics should not be held to higher or different standards than other health care clinics. When developing or amending policies, federal policymakers can take steps to ensure that retail clinics are treated in the same way as other providers. These may include applying the same standards with regard to accreditation, measuring quality of care and patient experiences with care, provider credentialing, and reimbursement; incorporating retail clinics into demonstration projects, such as those focused on telemedicine, the interoperability of electronic health records, and medical homes; considering the role that retail clinics could play in underserved areas; and examining the role of retail clinics in public health surveillance and the distribution of countermeasures during mass-casualty events. Strategies that seek to increase access to care at the community level could include all area providers—primary care practitioners, community health centers, and retail clinics—in their efforts.

Concluding Observation

Retail clinics have become an important presence in the U.S. health care system. However, there is comparatively little empirical evidence to support many of the assertions made by their supporters

and their detractors, and considerable additional research is needed. The role that retail clinics play may change in the face of health insurance expansions under health care reform, the growing shortage of primary care physicians, and the increased use of health information technology. Over time, these changes will create new opportunities for health policies at the federal level to influence both how retail clinics function and the ways in which their care is integrated with that of other providers.

Methods

Literature Review

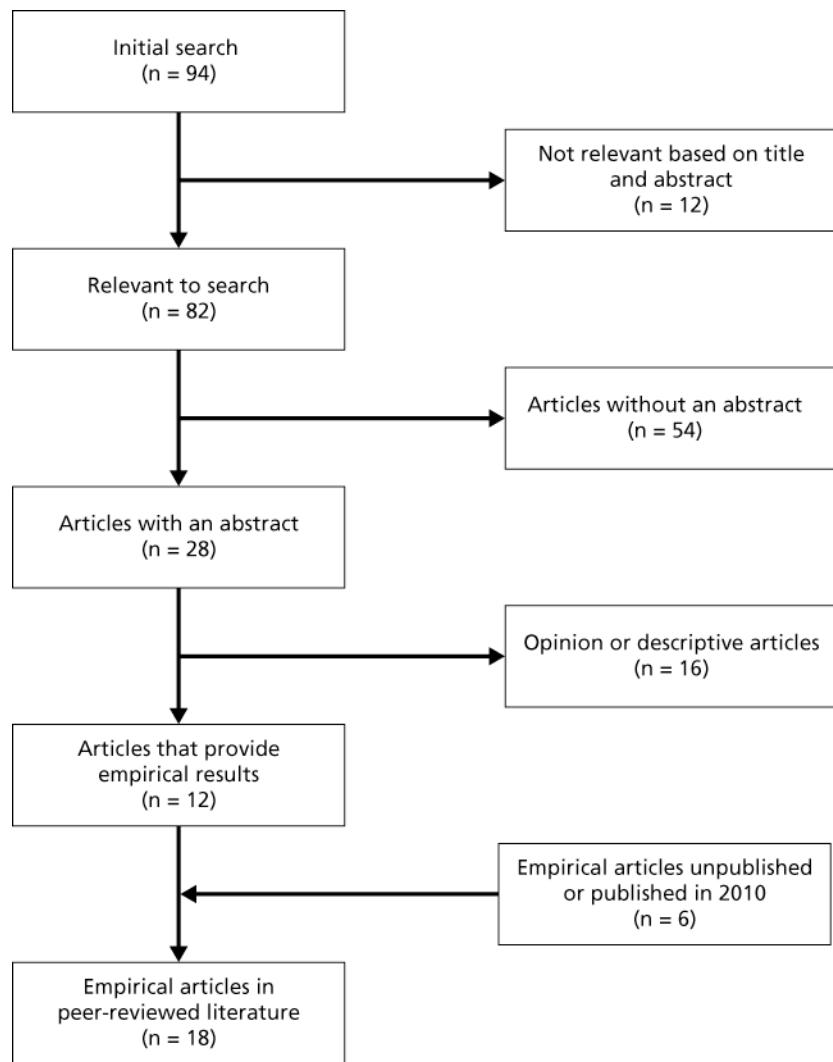
We used the following search terms in PubMed to identify relevant articles published between 1965 and October 27, 2009:

“Retail Health Clinic”[all] OR “Retail-based Clinic”[all] OR “Retail Clinic”[all] OR “In-store Clinic”[all] OR “Retail Health Clinics”[all] OR “Retail-based Clinics”[all] OR “Retail Clinics”[all] OR “In-store Clinics”[all] OR “Retail-based Health Clinic”[all] OR “Retail-based Health Clinics”[all] OR “Retail medicine”[all] OR “Retail healthcare”[all] OR “Retail-base ambulatory care”[all] OR “Retail medical clinic”[all] OR “Retail medical clinics”[all] OR “Convenient care clinic”[all] OR “Convenient care clinics”[all] OR “Retail store health clinic”[all] OR “Retail store health clinics”[all] OR “Retail store clinic”[all] OR “Retail store clinics”[all] OR “Retail care”[all] OR (retail AND ambulatory care facilities[mesh])

As noted in Chapter One, because of the paucity of published research articles, we supplemented our literature review with news articles identified via a LexisNexis Academic Universe search, which covers U.S. newspapers and newswire services. This search used the terms *retail* and *clinic* within one word of each other and the term *retail medicine*. This search was limited to the six-month period between July 19, 2009, and January 19, 2010, and it eliminated articles related to the H1N1 virus after it became clear that those articles referred to announcements of H1N1 vaccine availability at retail clinics.

Figure A.1 details the inclusion and exclusion criteria for the literature review and displays the count of articles in each category.

Figure A.1
The Results of the Literature Search



RAND TR810-A.1

Expert Panel Meeting

Overview

On April 22, 2010, RAND convened a panel of experts to discuss issues confronting retail clinics and to highlight potential federal policy concerns before a stakeholder audience. This appendix describes key aspects of the discussion, which was used to inform the development of this report.

Nine panelists participated in the discussion:

- Web Golinkin, president and chief executive officer of RediClinic and immediate past president of the Convenient Care Association
- Tine Hansen-Turton, executive director of the Convenient Care Association
- Dr. Rick Kellerman, past president of the AAFP
- Dr. Tod Podl, section head of the Department of Family Medicine at Cleveland Clinic Beachwood Family Health and Surgery Center
- Melissa Schoen, senior program officer, California HealthCare Foundation
- Malvise Scott, senior vice president, partnerships and resource development, National Association of Community Health Centers
- Dr. Jan Towers, health policy director, AANP
- Margaret VanAmringe, vice president for public policy and government relations, The Joint Commission
- Dr. Jim Woodburn, vice president and medical director, clinical initiatives, OptumHealth, UnitedHealth Group (attending by phone).

Attendees at the meeting included representatives of three retail clinic operators (MinuteClinic, RediClinic, and The Little Clinic), two trade associations (the Convenient Care Association and the Urgent Care Association of America), a trade publication (Merchant Medicine), America's Health Insurance Plans, the American Academy of Physician Assistants, Abt Associates, the National Health Policy Forum, and several federal organizations (including the Office of the Assistant Secretary for Planning and Evaluation, the National Center for Health Statistics, the Indian Health Service, and the Medicare Payment Advisory Commission).

The agenda focused on three key topics:

1. **Concerns regarding current policy and practice.** Many new policies and demonstration projects are driving current and potential future changes in the delivery of health care in the United States. These include the CMS medical home demonstration and other efforts to

increase medical home prevalence; accountable care organizations; bundled payment models; and new federal efforts to significantly expand the use of electronic health records and health information exchanges. Topics of discussion included the role that retail clinics may play under any of these models and potential areas of federal policy concern.

2. **Emerging retail trends and potential federal policy responses.** News media reports suggest that retail clinics are likely to move into new areas and make use of newer technologies. They will expand care beyond acute minor conditions to include a variety of additional concerns, ranging from sprained ankles to chronic disease management. Other reports have suggested that retail clinics could eventually serve as sites for accessing telemedicine. In such situations, the clinics would be staffed by trained medical attendants connected to offsite physicians. Topics of discussion included the likely impact of such potential new areas of care on quality, coordination, and continuity of care; issues that are likely to be of concern to the federal government; and issues that may require policy intervention.
3. **Issues and questions for federal policy consideration.** This session provided an opportunity for panelists to raise issues and questions relevant to federal policy regarding retail clinics. Of particular interest were issues related to coverage and reimbursement under Medicare, Medicaid, and CHIP; the extent to which retail clinics are viable alternative sources of care for populations covered by these programs; and potential policy levers for increasing the accessibility of retail clinic care for underserved populations.

Summary of Discussion

Advantages of Retail Clinics

The panel discussed the advantages that retail clinics provide to patients: extended hours, convenient locations, drop-in visits with short wait times, and collocated pharmacies. Much of the discussion focused on the differences between how health care providers define *quality of care* (the focus was largely on clinical and technical quality measures) and how patients define *quality* (the focus was largely on the quality of service provided). The panelists noted that the customer service aspect of the retail clinic business model is one from which other providers could learn how to improve the services they provide.

According to one panelist, patients who seek care are “people coming into retail clinics knowing exactly what they want.” Panelists also noted that retail clinic patients are not seeking care in those clinics in an effort to obtain better quality but rather are seeking to improve their access to care. Panelists pointed out that any type of practice could stay open late or on the weekends and that the retail clinic model is defined by its limited scope of practice, which allows these clinics to focus on treating a high volume of patients with minor conditions. Therefore, planned expansions to the scope of care at retail clinics could change the underlying business model.

Fragmentation and Continuity of Care

The panelists suggested that many physician objections to retail clinics may stem from fears that retail clinics will add to the fragmentation of care. One AAFP study cited by a panelist provided three recommendations to physicians to help increase continuity of care in communities where retail clinics are located: Physicians can (1) provide clinical supervision of retail clinic nurse practitioners, (2) accept referrals from retail clinics or refer patients to retail clinics (or both), and (3) offer services

that capture the patient-centered attributes of the clinics. One attendee reminded the group that, in the 1970s, the rise of urgent care centers raised similar concerns about fragmentation of care—concerns that have largely abated.

Panelists noted that 30–65 percent of patients at retail clinics do not have a primary care physician, and opportunities to use retail clinic visits as potential sites of linkage to primary care were discussed. However, there are communities in which many primary care physicians are not accepting new patients. Panelists recommended using demonstration projects to assess patient-centered medical home models that include retail clinics.

One panelist suggested asking community-based providers where there are gaps in their ability to provide care and then identifying ways in which retail clinics can help fill those gaps. Chronic obstructive pulmonary disease (COPD) and hospital readmissions provide one example. Current policy efforts call for hospitals to reduce their readmission rates, and panelists noted that one cause of preventable readmissions for patients with COPD is that such patients are discharged from the hospital without receiving proper training in how to use provided equipment. When the patients do not understand how to properly use the equipment, they are likely to experience a relapse and to be readmitted. Panelists suggested that discharged COPD patients could visit retail clinics for routine follow-up and to ask questions about how to operate the equipment and how to best care for their COPD. The panelists felt that the convenient location and hours of retail clinics could increase adherence to follow-up care recommendations and reduce hospital readmissions.

Electronic Health Records and Telehealth

Nearly all retail clinics use electronic health records, and the Convenient Care Association mandates their use as a condition of membership. However, retail clinics use a variety of different electronic health record products, and the systems from different companies are not interoperable. Panelists noted that demonstration projects that seek to understand how to create and implement interoperable electronic health record systems, health information exchanges, and regional health information organizations should include retail clinics in their efforts. They outlined a model under which the use of such interoperable records would connect retail clinics to physicians and potentially address some of the reservations that primary care physicians have about retail clinics—particularly those related to coordination of care.

The panel discussed other advances in technology and telehealth that could provide opportunities for retail clinic expansion. For example, retail clinics could expand their scope of services if a physician were on call from a remote location to consult. Or, high-definition video could permit telehealth physician visits that would take place with the patient at the retail clinic. Some panelists noted both the potential positive impact of such models of care in underserved communities and the fact that these models could also be used for triaging patients into appropriate hospital and emergency settings. Panelists would support demonstration projects that make use of such technological advances, and they noted that reimbursement systems would need to be revised to support the growth of such efforts.

Reimbursement Policies

The panelists encouraged consideration of alternative payment mechanisms, noting that current reimbursement policy can pose a barrier to care coordination across providers. Under fee-for-service reimbursement structures in particular, many physicians are only paid to see patients who visit their offices, and they are not paid for any care-coordination activities. As a result, they may be averse to

having their patients seek care elsewhere, such as at retail clinics, since such visits lower their income. In addition, some of the services that retail clinics provide, such as treatment for sore throats and earaches, generate significant revenue for physician offices, and physicians are therefore reluctant to let other providers share in these services. Some panelists suggested that the ideal way to allocate resources within the health care system is to redesign reimbursement policies to encourage the provision of services by the lowest-cost provider.

Partnerships to Enhance Care in Underserved Communities

Panelists suggested two avenues for expanding retail clinic partnerships. The first is to build relationships with existing community health centers, agreeing that the health centers would rely on retail clinics to provide services to patients with minor acute care needs, thus giving the health center physicians more time for addressing complex patient needs. The second is to build partnerships with supermarkets—particularly supermarkets built in underserved communities under the auspices of recent initiatives. By partnering with these supermarkets, retail clinics could expand their presence in underserved areas.

Staffing and Credentialing

Panelists noted that nurse practitioners and physician assistants are qualified and licensed to provide a much broader range of services than retail clinics offer. Some panelists expressed a preference for increasing reimbursement rates for nurse practitioner and physician assistant services and for expanding the two-year increase in Medicaid reimbursement rates under health reform to include these providers as well as primary care physicians.

Some panelists described credentialing as a significant problem. The need to credential each nurse practitioner at each site of care in order to be eligible for reimbursement under Medicare and Medicaid is a particular burden because many nurse practitioners practice at multiple locations.

Retail Clinics and the Patient Protection and Affordable Care Act

The panel discussed how the increasing number of Americans with insurance under the Patient Protection and Affordable Care Act may change demand for retail clinic services. For example, when Massachusetts mandated insurance coverage, MinuteClinic expanded its number of locations in the state more quickly than in other parts of the country in order to address the increased demand for health care services. Panelists also suggested that other provider types could benefit from partnerships with retail clinics to address this increased demand, again citing examples from Massachusetts, where community health center costs increased more quickly than their revenue as they began seeing new patients who were ill and had not had previous access to care.

Panelists believed that demonstration projects funded under the health care reform package should include retail clinics. In addition, although price transparency has been one of the hallmarks of retail clinics, it is less important to patients with insurance coverage (because many only pay an office visit copayment rather than the full price of services). Because insured patients are likely to constitute a growing proportion of the population under the health reform law, transparency may be less of a competitive advantage for retail clinics in the future.

Expansion of Scope of Services

Until recently, the scope of practice at retail clinics has been limited to minor acute care. Given the nation's shortage of primary care physicians and an expected increase in demand resulting from

health reform, many retail clinics are considering expanding the breadth of services they offer. MinuteClinic has already begun to offer chronic disease monitoring. Panelists and attendees discussed the potential for retail clinic involvement in chronic care management, noting both the opportunities and the complex nature of chronic disease care. In particular, the protocol-driven nature of care at retail clinics lends itself less to chronic care than to minor acute illnesses. However, panelists suggested that retail clinics could offer chronic disease screening and monitoring. The results of these tests could be shared with physicians or care managers, enabling those providers to focus patient visits on the results of the tests and the care plan.

Panelists also suggested that retail clinics are likely to expand their scope of services in the areas of weight loss and behavioral change. They noted that many physicians do not have adequate time to counsel patients on lifestyle changes and that nurse practitioners are qualified to do this work. Participants suggested that patients may find a retail clinic to be a more discreet location for these services than a diet clinic. In addition, the convenience of retail clinics would enable patients to visit while shopping, and, for those clinics located in grocery stores, nurse practitioners could help patients read nutrition labels and understand food choices. Relatedly, nurse practitioners could help patients who stop in for a quick checkup or to ask a question manage their diabetes or hypertension. However, current reimbursement systems would likely not cover many of these services.

Public Health Preparedness

The panelists noted that retail clinics could play an important role in public health preparedness. The broad geographic scope of the largest of the retail clinic chains and their shared internal electronic health records could mean that such chains would be among the first providers to identify pandemics and may be able to provide real-time surveillance information. In an emergency, retail clinics could be used to dispense prophylaxis and treatment in a streamlined and timely manner.

Panelist Recommendations

The panelists made the following recommendations:

- Regarding care coordination and medical homes,
 - Ensure that retail clinics are included in demonstration projects.
 - Reimburse for care coordination.
- Regarding payment and incentives,
 - Review reimbursement for retail clinic services and encourage the use of lower-cost models of care.
 - Incentivize primary care providers to partner with retail clinics.
 - Incentivize care coordination by paying for services delivered in ways other than through in-person visits.
 - Reimburse care provided by nurse practitioners and physician assistants at a level equivalent to that provided by physicians.
 - Simplify multiple credentialing requirements for insurance reimbursement. Consider having the federal government (1) create a single database for maintaining credentialing information and (2) encourage uniform and streamlined standards for all payers.

- Regarding chronic disease management,
 - Ensure that patients can access needed treatment if retail clinics screen for chronic disease.
 - Recognize that expansions into chronic disease care require particular caution.
- Regarding electronic health records and telemedicine,
 - Extend incentives for meaningful use to include nurse practitioners and physician assistants.
 - Include retail clinics in pilot programs for health information exchanges and regional health information organizations.
 - Evaluate demonstration projects before wholesale investment in telehealth.
 - Include retail clinics as pilot sites when testing the feasibility of both electronic health record interoperability and telemedicine.
 - Structure reimbursement systems to encourage the use of technology.
- Regarding underserved populations,
 - Increase Medicaid payment rates and extend the two-year increase in Medicaid payments to nurse practitioners and physician assistants in order to encourage retail clinics to provide care to underserved populations.
 - Subsidize care at retail clinics through demonstration projects in otherwise nonviable locations (e.g., rural areas, underserved areas).
 - Encourage retail clinic partnerships with community health centers.
- Regarding public health preparedness,
 - Recognize the potential of retail clinics to contribute to biosurveillance on a modified real-time basis and to contribute to timely prophylactic responses.
 - Streamline the vaccine and medication distribution process so that retail clinic sites receive supplies in a timely manner.

Panelists also highlighted the importance of treating retail clinics in the same way as other health care providers, noting that retail clinics should be included in demonstration projects; subject to the same licensing, credentialing, and accreditation requirements as other ambulatory-care providers; and subject to the same requirements for care coordination as other providers.

Position Statements from Professional Organizations

Six professional organizations have released position or policy statements regarding retail clinics: AAFP, AANP, AAP, ACEP, ACP, and AMA. The relevant policy statements are supplied in full or excerpted in this appendix.

American Academy of Family Physicians (2007)

AAFP does not endorse Retail Health Clinics (RHC), believes that they could interfere with the medical home and opposes expansion of their scope of service, in particular, to include the diagnosis, treatment and management of chronic medical conditions in this setting. The AAFP is committed to the development of a health care system based on high quality, cost effective, team-based and patient-centered primary care and on the tenants of first contact, comprehensive, coordinated and continuing care for all persons (i.e., a medical home). The AAFP believes that the RHC model of care is not a medical home and has the potential to further fragment patient care.

In those markets where RHC's exist, the AAFP has defined a set of attributes related to their design and operation that are important to the patient care offered in this setting. It is the individual physician's choice whether or not to sponsor or work cooperatively with a retail clinic, however the AAFP urges all retail clinics to abide by the following attributes:

- Scope of Service—Retail clinics must have a well-defined and limited scope of clinical services.
- Evidence-based Medicine—Clinical services and treatment must be evidence based and quality improvement-oriented.
- Team-based Approach—The clinic should have a formal connection with physician practices in the local community, preferably with family physicians, to provide continuity of care. Non-physician health professionals practicing in this setting, such as nurse practitioners and physician assistants, should operate in accordance with state and local regulations, as part of a “team-based” approach to health care and under responsible supervision of a practicing, licensed physician.
- Referrals—The clinic must have a referral system to physician practices or to other entities appropriate to the patient's symptoms beyond the clinic's scope of services. The clinic should encourage all patients to have a “medical home.”
- Electronic Health Records (EHR)—The clinic should include an EHR system sufficient to gather and communicate the patient's information with the family physician's office,

preferably one that is compatible with the Continuity of Care Record supported by AAFP and others.

American Academy of Nurse Practitioners (2007)

Standards for Nurse Practitioner Practice in Retail-Based Clinics

It is the position of the American Academy of Nurse Practitioners that primary care nurse practitioners (NPs) can play a significant role in making retail-based clinic[s] (also known as convenient care clinics) a viable health care option to patients who might not otherwise receive needed care in a timely manner. To do this, a number of standards must be met to assist the NP in maintaining the high quality of care that NPs provide. Multiple studies demonstrated that NPs provide health care that is equal to, or superior to that of physicians providing the same care for the same problems. Likewise, patient satisfaction ratings for NPs are found to be very high.* The combination of high quality nursing and medical care provided by NPs is an effective model for care in retail-based clinics.

Recognizing that primary care NPs are advanced practice licensed independent practitioners, the following standards should be maintained in retail-based clinics utilizing NPs as their primary providers of care:

- NPs utilized in retail-based clinics must meet all regulatory requirements for certification and education and be recognized to practice as an NP in the state in which the clinic functions.**
- NPs must be consulted regarding the development of retail-based primary care clinics, their policies, practice guidelines and operational procedures.
- NPs must be an integral part of management activities in establishing and running retail-based primary care clinics.
- The functions of the clinic should be based on the NP's full scope of practice and should not limit the ability of NPs to conduct appropriate assessments and provide appropriate evidence-based treatments and referrals to other health care providers, institutions and agencies.
- The NP must be provided with resources to maintain appropriate health/medical records for all patients seen in the clinic, and provide appropriate information to other health care providers within the framework of HIPAA regulations.
- The facility must be adequately equipped to appropriately provide primary care services including but not limited to the provision of patient privacy, and the maintenance of OSHA, CLIA, and ADA standards.
- NPs must be permitted to establish an ongoing program for quality assurance through appropriate peer review and established quality measures.
- NPs must be able to maintain high standards of professionalism in all activities undertaken in the retail-based clinic environment.
- NPs employed by retail-based clinics must receive competitive salaries or equivalent payment for services and benefits, including opportunities to attend professional meetings and continuing education activities.

The implementation of these standards will facilitate the provision of high quality primary care services to patients seen by NPs in the retail-based clinic setting.

Summary

Retail-based clinics are a potentially viable resource for the provision of necessary primary care services in many communities throughout the United States. In order to facilitate their functioning at the highest quality level, NPs must be involved in all aspects of forming and running these clinics.

References

- * American Academy of Nurse Practitioners (2007), Documentation of Quality of Nurse Practitioner Practice, Austin, Texas: American Academy of Nurse Practitioners
- ** American Academy of Nurse Practitioners (2007), Scope of Practice For Nurse Practitioners, Austin, Texas: American Academy of Nurse Practitioners

American Academy of Pediatrics (2006)

Retail-Based Clinic Policy Work Group Policy Statement

Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of All Children

AAP Principles Concerning Retail-Based Clinics

The American Academy of Pediatrics (AAP) opposes retail-based clinics (RBCs) as an appropriate source of medical care for infants, children, and adolescents and strongly discourages their use, as the AAP is committed to the medical home model. The medical home model provides accessible, family-centered, comprehensive, continuous, coordinated, compassionate, and culturally effective care for which the pediatrician and the family share responsibility.¹ Given that the RBC is not a medical home model, the AAP is particularly concerned with the effects of the following attributes of an RBC on health care for children and adolescents:

- Fragmentation of care.
- The possible effects on quality of care.
- Provision of episodic care to children with special health care needs and chronic diseases, who may not be readily identifiable.
- Lack of access to and maintenance of a complete, accessible, central health record that contains all pertinent patient information.
- The use of tests for the purposes of diagnosis without proper follow-up.
- The possible public health issues that could occur when patients with contagious diseases are in a commercial, retail environment with little or no isolation (e.g., fevers, rashes, mumps, measles, strep throat, etc).

¹ The statement's footnote is reproduced here: "American Academy of Pediatrics, Medical Home Initiatives for Children with Special Needs Project Advisory Committee. The medical home. *Pediatrics*. 2002;110:184–186."

- Seeing children with “minor” conditions, as will often be the case in an RBC, is misleading and problematic. Many pediatricians use the opportunity of seeing the child for something minor to address issues in the family, discuss any problems with obesity or mental health issues, catch up on immunizations, identify undetected illness, and continue strengthening the relationship with the child and family. These visits are important and provide an opportunity to work with patients and families to deal with a variety of other issues.

The AAP acknowledges that the shifting economic and organizational dynamics of the current health care system will likely support the continued existence and expansion of RBCs. However, the aforementioned concerns and the overall effects these clinics will have on pediatric practice have led the AAP to respond with the following principles:

1. Supporting the Medical Home Model

RBCs should support the medical home model by referring the patient back to the pediatrician or other primary care physician for all future care. In the event that the patient does not have a relationship with a pediatrician or primary care physician, RBCs should have the means to assist the family in establishing contact with one within a medical home. Third party payers are encouraged to provide appropriate incentives to plan members to access the medical home as the best practice model for pediatric primary care.

2. Communication

The AAP recommends that RBCs promptly communicate with the patient’s pediatrician or other primary care physician within 24 hours of the visit. At a minimum, the following information should be included: patient’s name, date of birth, at least 2 additional pieces of identifying information (e.g., parents’ name and/or address), reason for visit, diagnosis and disposition, findings, laboratory results (if any), and an indication as to whether any follow up is needed.

3. Using Evidence-Based Medicine

The AAP recommends that all those providing care to children follow all AAP clinical guidelines as well as those guidelines developed by other medical organizations that have the support and endorsement of the AAP. RBCs should be required to participate in ongoing quality-improvement and quality-assurance processes, as required of pediatric and other primary care practices. RBCs must meet all requirements related to quality assurance and ensure full compliance with state licensure requirements for oversight or collaborative protocols relative to scope of practice.

4. Contagious Diseases

By providing medical care to individuals in a retail-based setting, RBCs must take the necessary precautions to prevent the spread of contagious diseases. Although the RBC may have policies that limit the scope of services, this may not prevent individuals with contagious diseases from seeking care at RBCs. This presents a potential public health hazard to retail staff and customers who may come in contact with a contagious individual. RBCs should be subject to and comply with all health care facility standards (e.g., hygiene, safety, regulations of the Occupational Safety and Health Administration, policies and procedures for children with communicable diseases, etc).

5. Financial Incentives

The AAP is opposed to waiving or lowering copays or offering financial incentives for visits to RBCs in lieu of visits to pediatricians’ or other primary care physicians’ offices. The AAP believes the medical home model is the optimal standard of care, and RBCs are not medical homes. Payer

incentives should not promote fragmentation of care but should instead recognize and reward systems of care that promote continuous, coordinated, and comprehensive care.

Retail-Based Clinic Policy Work Group

Robert M. Corwin, MD

Anne B. Francis, MD

Thomas K. McInerny, MD

Joseph W. Ponzi, MD

Mark S. Reuben, MD

Robert D. Walker, MD

Steven E. Wegner, MD, JD

Kyle Yasuda, MD

Staff

Heather Fitzpatrick, MPH

Louis A. Terranova, MHA

Linda Walsh, MAB

Teri Salus, MPA, CPC

Ed Zimmerman, MS

American College of Emergency Physicians (2008)

Retail-Based Clinics

Approved by the ACEP Board of Directors April 2008

The American College of Emergency Physicians (ACEP) recognizes the increasing prevalence of retail-based clinics, and believes the following attributes are important to patient care:

- Scope of Service: Retail clinics should have a well-defined and limited scope of clinical services. A list of services provided by the clinic and the qualifications of the on-site health care provider should be furnished prior to services being rendered. Any marketing materials should also reflect the qualifications of the on-site health care provider.
- Providers: Allied health providers, such as nurse practitioners and physician assistants, should operate under appropriate physician supervision and in accordance with local and state regulations, and licensure requirements.
- Coordination of Care: The clinic should maintain formal connections with other area physician practices, clinics, hospitals, and emergency departments in order to maximize effective resource utilization and information exchange within the community. Clinics should encourage all patients to have a primary care provider and provide information leading to appropriate referrals to local medical practices for ongoing care.
- Patient Health Records: The clinic must maintain a robust system of maintaining medical records that are accurate, complete, easily accessible, and retrievable. Information from the clinical encounter should be available to the patient's primary care provider.

- Referrals: The clinic must have a well-defined referral system for patients who present with symptoms beyond the clinic's defined scope of clinical services. These guidelines should include: indications for transfer, transfer agreements, detailed protocols for effective communication and transfer of information, and consideration of appropriate methods of transportation.
- Patient Protection: Retail-based clinics should be regularly inspected and subject to well-defined state and local standards and regulations. Policies and procedures must be in place to ensure adequate protection of patients and families with regard to HIPAA requirements, patient confidentiality, appropriate transfer of medical information, and infection control. Retail-based clinics should be staffed and equipped to handle emergency complications of the care that is provided.
- Quality of Care: Clinical services and treatment must be evidence-based and quality improvement oriented.

American College of Physicians (2007)

In January 2007, the College's Board of Regents approved a set of principles to guide ACP Chapters in dealing with any individual, company, or other entity that seeks to establish and/or operate a retail health clinic in their region. The following principles are designed to serve as guidelines for ACP advocacy at the state and local level and to ensure optimal patient care:

- Retail health clinics should have a well-defined and limited scope of clinical services given the limited clinical services that can be provided in such settings. These services should also be consistent with state scope of practice laws.
- Retail health clinics should establish arrangements by which their health care practitioners have direct access to and supervision by physicians.
- Retail health clinics should use standardized medical protocols based on evidence based practice guidelines.
- Retail health clinics should have a system in place so that information about the care provided is communicated to the patient's primary care physician and/or "medical home."
- Retail health clinics should have a referral system to physician practices or other entities appropriate to the patient's symptoms beyond the clinic's scope of practice and/or to establish continuity of care where appropriate.
- Retail health clinics should provide for continuous coverage of patients during off hours, either directly or through arrangements with other practices in those cases where such follow up cannot be arranged with a personal physician with whom the patient already has an ongoing medical care relationship.

American Medical Association (2006)

It is AMA policy (H-160.92) that any individual, company, or other entity that establishes and/or operates store-based health clinics should adhere to the following principles:

- Store-based health clinics must have a well-defined and limited scope of clinical services, consistent with state scope of practice laws.

- Store-based health clinics must use standardized medical protocols derived from evidence based practice guidelines to ensure patient safety and quality of care.
- Store-based health clinics must establish arrangements by which their health care practitioners have direct access to and supervision by MD/DOs, as consistent with state laws.
- Store-based health clinics must establish protocols for insuring continuity of care with practicing physicians within the local community.
- Store-based health clinics must establish a referral system with physician practices or other facilities for appropriate treatment if the patient's conditions or symptoms are beyond the scope of services provided by the clinic.
- Store-based health clinics must clearly inform patients in advance of the qualifications of the health care practitioners who are providing care, as well as the limitation in the types of illnesses that can be diagnosed and treated.
- Store-based health clinics must establish appropriate sanitation and hygienic guidelines and facilities to insure the safety of patients.
- Store-based health clinics should be encouraged to use electronic health records as a means of communicating patient information and facilitating continuity of care.
- Store-based health clinics should encourage patients to establish care with a primary care physician to ensure continuity of care.

Convenient Care Association Quality Standards

The Convenient Care Association established a set of quality standards in 2008 as part of its role as the retail clinics' trade association. The standards are reproduced here in their entirety.

Convenient Care Association (2008)

To ensure the highest quality of patient care and safety in the convenient care setting, the members of the Convenient Care Association (CCA) commit to the following:

1. All providers will be thoroughly credentialed for license, training and experience, with rigorous background checks to verify training and licensing.
2. All CCA Members are committed to monitoring quality on an ongoing basis, including but not limited to:
 - peer review;
 - collaborating physician review;
 - use of evidence-based guidelines;
 - collecting aggregate data on selected quality and safety outcomes;
 - collecting patient satisfaction data.
3. All CCA Members build relationships with traditional health care providers and hospitals, and work towards a goal of using EHRs to share patient information and ensure continuity of care.
4. All CCA Members are committed to encouraging patients to establish a relationship with a primary care provider, and to making appropriate and careful referrals for follow-on care and for conditions that are outside of the scope of the clinic's services.
5. All CCA Members are in compliance with applicable OSHA, CLIA, HIPAA, and ADA standards. All CCA Members follow Centers for Disease Control (CDC) guidelines for infection control through hand washing.
6. All CCA Members provide health promotion and disease prevention education to patients. All CCA Members provide written instructions and educational materials to patients upon leaving the clinic.

7. All CCA Members use Electronic Health Records (EHR) to ensure high-quality efficient care. All CCA Members are committed to providing all patients with the opportunity to share health information with other providers electronically or in paper format.

8. All CCA Members provide an environment conducive to quality patient care and meet standards for infection control and safety.

9. All CCA Members will establish emergency response procedures and develop relationships with local emergency response service providers to ensure that patients in need of emergency care can be transported to an appropriate setting as quickly as possible.

10. CCA Members empower patients to make informed choices about their health care. Prices for services provided at Convenient Care Clinics are readily available in a visible place outside of the examination room. Providers discuss what impact, if any, the provision of additional services will have on the ultimate cost to the patient.

The CCA Clinical Advisory Board has developed these recommendations for CCA Quality and Safety Standards to guide the Convenient Care industry. CCA members agree to adhere to the CCA Quality and Safety Standards guidelines which are based on, and are more stringent than, those recommended by the American Medical Association, American Academy of Family Practitioners and American Academy of Pediatrics.

To further underscore the importance of the Quality and Safety Standards, CCA offers a third party certification for members through Jefferson Medical College. This certifies that CCA members are in compliance with the CCA Quality and Safety Standards guidelines. CCA members have other accountability options including accreditation by The Joint Commission and/or Accreditation Association for Ambulatory Health Care.

All CCA members use standardized protocols and guidelines to enhance the decision making process and assist nurse practitioners (NP), physician assistants (PA) and physicians (MD or DO) in clinical assessments. CCA member clinics' protocols are grounded in evidence-based medicine and guidelines published by respected health care bodies and government entities. All CCA members incorporate rigorous quality assessments into their practice, such as:

- Formal chart review by experienced clinicians
- Peer-review by clinicians
- Medical diagnosis and treatment code auditing
- Processes to ensure that all clinicians are certified and credentialed in their specialty by their respective governing bodies
- Compliance with state regulations regarding the practice of health care clinicians

One of the primary goals of the CCA is to provide resources to identify standardized guidelines that are evidence-based to ensure the highest quality of care throughout all CCCs. To achieve this goal, the CCA has assembled a Clinical Advisory Board. The purpose of this advisory board is to:

- set expectations for members regarding clinical quality;
- support CCA members by providing clinical quality resources; and
- evaluate the convenient care model through outcomes studies.

The Estimated Number of Retail Clinic Visits That Would Be Captured by the National Health Interview Survey

To estimate the total number of retail clinic visits that would be captured by the National Health Interview Survey (NHIS), we calculated the average of the reciprocal of the NHIS analysis weights to estimate their sampling rate for each combination of age (in five-year intervals) and gender. We then used these sampling rates to calculate the number of visits and individuals who made visits that would likely be captured if retail clinic visits were distributed across age-gender categories in the same way as in the data used by Mehrotra et al. (2008). These estimates assume that the NHIS would include new questions that capture information on retail clinic visits and that this information would be captured in the same way as information on visits to physician offices. They also assume that the sampling strategy and overall sample size would be identical to those of the 2008 administration of the survey, the most recent round for which sampling data are available to the public.

Table E.1 shows the estimated number of visits that would be included in the NHIS under varying assumptions. The most conservative assumption is based on current utilization rates, and the results estimate that the NHIS would capture only 397 retail clinic visits. Under far-more-generous assumptions in which the number of retail clinics remains constant but each clinic sees four patients every hour and is open an average of 71 hours every week, nearly 4,400 visits would be captured in the NHIS. Table E.2 displays the assumptions used to generate the first column of Table E.1, the estimated total number of visits to retail clinics annually.

Table E.1
Estimated Number of Retail Clinic Visits and Individuals with at Least One Retail Clinic Visit That Would Be Included in the National Health Interview Survey

Estimated Total No. of Visits to Retail Clinics Annually	Assuming 2		Assuming 1.5		Assuming 1	
	Unique Visits per Person Annually,	Unique Visit per Person Annually,	Unique Visit per Person Annually,			
	No. of Retail Clinic Visits	No. of Individuals	No. of Retail Clinic Visits	No. of Individuals	No. of Retail Clinic Visits	No. of Individuals
1,600,000	397	198	397	265	397	397
3,360,000	833	417	833	556	833	833
4,651,920	1,154	577	1,154	769	1,154	1,154
12,600,000	3,125	1,563	3,125	2,084	3,125	3,125
17,721,600	4,396	2,198	4,396	2,931	4,396	4,396

NOTES: *No. of Retail Clinic Visits* refers to the estimated number of annual retail clinic visits that would be included in the NHIS. *No. of Individuals* refers to the estimated number of individuals with at least one retail clinic visit annually that would be included in the NHIS.

Table E.2
Assumptions Used for Estimating Total Number of Visits

Visits per Day	Hours Open per Week	Visits per Hour	Estimated No. of Visits per Year	Notes
N/A	N/A	N/A	1,600,000	Because Mehrotra et al. (2008) included 74 percent of all retail clinics nationally, we assumed that the total number of visits in that study represented 74 percent of all visits.
8	N/A	N/A	3,360,000	Conservative estimate of 8 visits per day.
N/A	71	1.05	4,651,920	Merchant Medicine estimates that MinuteClinic averages 1.07 visits per hour and that Take Care averages 1.03 visits per hour (Merchant Medicine, undated-a). We used 1.05, the middle of those two estimates.
30	N/A	N/A	12,600,000	The break-even rate estimated by a retail clinic expert (Scott, 2006).
N/A	71	4	17,721,600	Merchant Medicine's maximum rate of 4 visits per hour (undated-a).

NOTES: We assume that there are 1,200 retail clinics nationally. Estimates based on visits per day assume that retail clinics are open 350 days per year. Estimates based on hours open per week assume that retail clinics are open 52 weeks per year and 71 hours per week. Estimates based on weekly hours open assume that retail clinics are open 52 weeks per year and 71 hours per week. (Our review of the MinuteClinic website suggests that many MinuteClinic locations are typically open 71 hours per week.) Explanations for estimates based on other criteria are provided in the "Notes" column.

References

- Agency for Healthcare Research and Quality, "Table 1: Usual Source of Health Care and Selected Population Characteristics, United States, 2007," web page, undated. As of May 21, 2010:
http://www.meps.ahrq.gov/mepsweb/data_stats/tables_compendia_hh_interactive.jsp?_SERVICE=MEPSSocket0&_PR_OGRAM=MEPSPGM.TC.SAS&File=HCFY2007&Table=HCFY2007_CARE_1&VAR1=AGE&VAR2=SEX&VAR3=EDUCCAT&VAR4=RACETH5C&VAR5=INSURCOV&VAR6=POVCAT07&VAR7=MSA&VAR8=REGION&VAR9=HEALTH&VARO1=4+17+44+64&VARO2=1&VARO3=1&VARO4=1&VARO5=1&VARO6=1&VARO7=1&VARO8=1&VARO9=1&_Debug
- Ahmed, A., and J. E. Fincham, "Physician Office vs Retail Clinic: Patient Preferences in Care Seeking for Minor Illnesses," *Ann Fam Med*, Vol. 8, No. 2, March–April 2010, pp. 117–123.
- American Academy of Family Physicians, "Retail Health Clinics," web page, 2007. As of June 17, 2010:
<http://www.aafp.org/online/en/home/policy/policies/r/retailhealthclinics.html>
- American Academy of Family Physicians (AAFP), American Academy of Pediatrics (AAP), American College of Physicians (ACP), and American Osteopathic Association (AOA), "Joint Principles of the Patient Centered Medical Home," Patient-Centered Primary Care Collaborative, web page, February 2007. As of January 30, 2010:
<http://www.pcpcc.net/content/joint-principles-patient-centered-medical-home>
- American Academy of Nurse Practitioners, *Standards for Nurse Practitioner Practice in Retail-Based Clinics*, revised, 2007. As of June 17, 2010:
<http://www.aanp.org/NR/rdonlyres/9429B4BC-AB09-4CB6-A699-EB5AC43852D6/0/RetailBasedClinics.pdf>
- American Academy of Pediatrics, *Policy Statement: Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of All Children—AAP Principles Concerning Retail-Based Clinics*, September 14, 2006.
- American Academy of Pediatrics, Division of Health Services Research, *Experiences with Retail-Based Clinics and Office Hours*, Elk Grove Village, Ill.: American Academy of Pediatrics, PS#72, 2008.
- American College of Emergency Physicians, *Emergency Department Crowding: High Impact Solutions*, April 2008.
- American College of Physicians, "ACP Principles on Retail Health Clinics," web page, 2007. As of June 17, 2010:
http://www.acponline.org/advocacy/where_we_stand/other_issues/prhc.htm
- American Medical Association, *Report 7 of the Council on Medical Service (A-06): Store-Based Health Clinics—Executive Summary*, June 2006.
- Bohmer, R., "The Rise of In-Store Clinics—Threat or Opportunity?," *N Engl J Med*, Vol. 356, No. 8, February 22, 2007, pp. 765–768.
- Boulton, G., "New Clinic Boosts Access: Health Center in Lena's Market Helps Low-Income Residents," *Milwaukee Journal Sentinel*, January 5, 2010.
- Careworks Convenient Healthcare, "Geisinger and Lowe's Open Innovative Worksite Health Clinic," web page, 2009. As of January 24, 2010:
http://www.careworkshealth.com/news/press_releases/lowes_worksite_health_clinic_opens.html

- Christian, S., Dower, C., and O'Neil, E., *Overview of Nurse Practitioner Scopes of Practice in the United States—Discussion*, San Francisco, Calif.: The Center for the Health Professions, 2007.
- Coker, T. R., P. J. Chung, B. O. Cowgill, L. Chen, and M. A. Rodriguez, "Low-Income Parents' Views on the Redesign of Well-Child Care," *Pediatrics*, Vol. 124, No. 1, July 2009, pp. 194–204.
- Convenient Care Association, "Convenient Care Association Quality and Safety Standards," web page, 2008. As of June 18, 2010:
http://www.ccaclinics.org/index.php?option=com_content&view=article&id=6&Itemid=13
- Costello, D., "A Checkup for Retail Medicine," *Health Aff (Millwood)*, Vol. 27, No. 5, September–October 2008, pp. 1299–1303.
- Deloitte Center for Health Solutions, *2009 Survey of Health Care Consumers: Key Findings, Strategic Implications*, Washington, D.C., 2009a.
- _____, *Retail Clinics: Update and Implications*, Washington, D.C., 2009b.
- DeSanti, S. S. J. Farrell, and R. A. Feinstein, letter to Jill Brown, Kentucky Cabinet for Health and Family Services, Frankfort, Ky., January 28, 2010. As of May 13, 2010:
<http://www.ftc.gov/os/2010/02/100202kycomment.pdf>
- Dolan, P. L., "Seasonal Slump Shatters 89 MinuteClinic Locations," American Medical News, web page, March 30, 2009a. As of February 4, 2010:
<http://www.ama-assn.org/amednews/2009/03/30/bisa0330.htm>
- _____, "Retail Clinics Expanding Services More Than Locations," American Medical News, web page, October 12, 2009b. As of January 30, 2010:
<http://www.ama-assn.org/amednews/2009/10/12/bisa1012.htm>
- Eibner, C., P. S. Hussey, M. S. Ridgely, and E. A. McGlynn, *Controlling Health Care Spending in Massachusetts: An Analysis of Options*, Santa Monica, Calif.: RAND Corporation, TR-733-COMMASS, 2009. As of June 17, 2010:
http://www.rand.org/pubs/technical_reports/TR733/
- Gallegos, A., "Retail Medicine: The Cure for Healthcare Disparities?," *J Healthc Manag*, Vol. 52, No. 4, July–August 2007, pp. 227–234.
- Goedert, J., "National Telehealth Network Proposed," *Health Data Management*, Vol. 17, No. 9, 2009.
- Harris Interactive, "Most Adults Satisfied with Care at Retail-Based Health Clinics," web page, April 11, 2007. As of May 21, 2010:
<http://www.harrisinteractive.com/NEWS/allnewsbydate.asp?NewsID=1201>
- Health Information Technology Policy Committee, *Health IT Policy Council Recommendations to National Coordinator for Defining Meaningful Use Final—August 2009*, August 2009.
- Hooker, R. S., and L. E. Berlin, "Trends in the Supply of Physician Assistants and Nurse Practitioners in the United States," *Health Aff (Millwood)*, Vol. 21, No. 5, 2002, pp. 174–181.
- Hunter, L. P., C. E. Weber, A. P. Morreale, and J. H. Wall, "Patient Satisfaction with Retail Health Clinic Care," *J Am Acad Nurse Pract*, Vol. 21, No. 10, October 2009, pp. 565–570.
- Hussey, P. S., C. Eibner, M. S. Ridgely, and E. A. McGlynn, "Controlling U.S. Health Care Spending—Separating Promising from Unpromising Approaches," *N Engl J Med*, Vol. 361, No. 22, November 26, 2009, pp. 2109–2111.
- Johnson, C. K., "Doctor Shortage? 28 States May Expand Nurses' Role," *USA Today*, April 16, 2010.
- Kaiser III, C. F., and M. Friedlander, *Corporate Practice of Medicine*, Washington, D.C.: Internal Revenue Service, 2000.
- Kaiser Commission on Medicaid and the Uninsured, *Medicaid and Managed Care: Key Data, Trends, and Issues*, Washington, D.C.: Kaiser Family Foundation, February 2010.
- Kane, L., and J. Aburmishan, *Make Your Practice Successful Despite Today's Challenges: How to Compete with Retail and Minute Clinics*, Washington, D.C., October 2009.

Kashihara, D., and K. Carper, *National Health Care Expenses in the U.S. Civilian Noninstitutionalized Population, 2007*. Rockville, Md.: Agency for Healthcare Research and Quality, 2009.

Laws, M., and M. K. Scott, "The Emergence of Retail-Based Clinics in the United States: Early Observations," *Health Aff (Millwood)*, Vol. 27, No. 5, September–October 2008, pp. 1293–1298.

Lee, B. Y., A. Mehrotra, R. M. Burns, and K. M. Harris, "Alternative Vaccination Locations: Who Uses Them and Can They Increase Flu Vaccination Rates?" *Vaccine*, Vol. 27, No. 32, July 9, 2009, pp. 4252–4256.

Massachusetts Medical Society, *Massachusetts Medical Society Physician Workforce Study: Executive Summary*, September 2009.

Mehrotra, A., C. B. Forrest, and C. Lin, "Gaps in the Specialty Referral Process in the U.S. And Motivation for Reform," unpublished research, 2010.

Mehrotra, A., H. Liu, J. L. Adams, M. C. Wang, J. R. Lave, N. M. Thygeson, L. I. Solberg, and E. A. McGlynn, "Comparing Costs and Quality of Care at Retail Clinics with That of Other Medical Settings for 3 Common Illnesses," *Ann Intern Med*, Vol. 151, No. 5, September 1, 2009, pp. 321–328.

Mehrotra, A., M. C. Wang, J. R. Lave, J. L. Adams, and E. A. McGlynn, "Retail Clinics, Primary Care Physicians, and Emergency Departments: A Comparison of Patients' Visits," *Health Aff (Millwood)*, Vol. 27, No. 5, September–October 2008, pp. 1272–1282.

Merchant Medicine, "Insight: The Long Road to Breakeven—How Close Are MinuteClinic and Take Care?" web page, undated-a. As of May 21, 2020:

<http://www.merchantmedicine.com/News.cfm?view=60>

_____, "Insight: The Retail Clinic Market in 2009," web page, undated-b. As of January 30, 2010:

<http://www.merchantmedicine.com/News.cfm?view=74>

_____, "News: Wal-Mart Won't Meet Original Projections," web page, undated-c. As of February 4, 2010:

<http://www.merchantmedicine.com/news.cfm?view=50>

Merrell, K., and R. A. Berenson, "Structuring Payment for Medical Homes," *Health Aff (Millwood)*, Vol. 29, No. 5, May 2010, pp. 852–858.

Minnesota Community Measurement, "Our Reports: All Groups," 2009. As of March 11, 2009:

http://www.mnhealthscores.org/?p=our_reports&sf=group&categroy=15&sub_category

MinuteClinic, "My Records at MinuteClinic: Site Help," web page, undated. As of March 11, 2010:

<https://patientcenter.minuteclinic.com/auth/help.aspx>

_____, "Cleveland Clinic Enters into Agreement with MinuteClinic," February 13, 2009a. As of March 3, 2010:

<http://www.minuteclinic.com/Documents/Press-Releases/Cleveland%20Clinic%20Enters%20Agreement%20with%20MinuteClinic%202-13-09.doc>

_____, "CVS Caremark's MinuteClinic and Allina Hospitals & Clinics Form Strategic Partnership," web page, October 28, 2009b. As of March 3, 2010:

<http://www.minuteclinic.com/Documents/Press-Releases/AllinareleaseFinal10-29-7.doc>

National Association of Community Health Centers, *Dealing with the Emergence of Convenient Care Retail Clinics: A Guide for Health Centers*, Bethesda, Md.: National Association of Community Health Centers, 2008.

National Business Group on Health, *Engaging Employees and Their Families to Achieve Optimal Health: Findings from the National Business Group on Health Survey of Employees*, Washington, D.C.: National Business Group on Health, 2008.

_____, *Large Employers' 2009 Health Plan Designs: Results from the National Business Group on Health's Annual Survey*, Washington, D.C.: National Business Group on Health, 2009.

National Committee for Quality Assurance, "HEDIS 2010," web page, undated. As of January 30, 2010:

<http://www.ncqa.org/tabid/1044/Default.aspx>

National Health Lawyers Association and the American Academy of Healthcare Attorneys, *Patient Care and Professional Responsibility: Impact of the Corporate Practice of Medicine Doctrine and Related Laws and Regulations*, Washington, D.C.: NHLA/AHA, 1997.

National Quality Forum, "Care Coordination Practices & Measures," web page, undated. As of February 24, 2010: http://www.qualityforum.org/projects/care_coordination.aspx

Newbold, P., and M. J. O'Neil, "Small Changes Lead to Large Effects," *Front Health Serv Manage*, Vol. 24, No. 3, Spring 2008, pp. 23–27.

Office of the National Coordinator for Health Information Technology, "HITECH Priority Grants Program: State Health Information Exchange Cooperative Agreement Program—Facts-at-a-Glance," web page, March 15, 2010. As of June 14, 2010:

<http://healthit.hhs.gov/portal/server.pt?open=512&mode=2&objID=1834>

Ohlhausen, M. K., M. R. Baye, J. Schmidt, and L. B. Parnes, letter to LouAnn Stanton, Esq., Office of the General Counsel, Massachusetts Department of Public Health, Boston, Mass., September 27, 2007. As of May 13, 2010: <http://www.ftc.gov/os/2007/10/v070015massclinic.pdf>

_____, letter to the Honorable Elaine Nekritz, State Representative, State of Illinois, 57th District, Des Plains, Ill., May 29, 2008. As of May 13, 2010:

<http://www.ftc.gov/os/2008/06/V080013letter.pdf>

Palomar Pomerado Health, "PPH expresscare Are Walk-in Health Centers Operated by Palomar Pomerado Health (PPH)," web page, undated. As of March 11, 2010:

<http://www.pph.org/pphcontentpage.aspx?nd=132>

Parente, S. T., and R. Town, *The Impact of Retail Clinics on Cost, Utilization and Welfare*, October 2009.

Pearson, L. J., "The Pearson Report," *The American Journal for Nurse Practitioners*, Vol. 13, No. 2, 2009.

Pham, H. H., and P. B. Ginsburg, "Unhealthy Trends: The Future of Physician Services," *Health Aff (Millwood)*, Vol. 26, No. 6, 2007, pp. 1586–1598.

Pollack, C. E., and K. Armstrong, "The Geographic Accessibility of Retail Clinics for Underserved Populations," *Arch Intern Med*, Vol. 169, No. 10, May 25, 2009, pp. 945–949.

Pollert, P., D. Dobberstein, and R. Wiisanen, "Jumping into the Healthcare Retail Market: Our Experience," *Front Health Serv Manage*, Vol. 24, No. 3, Spring 2008, pp. 13–21.

PR Newswire, "CVS Caremark's MinuteClinic and Allina Hospitals & Clinics Form Strategic Partnership," 2009.

_____, "CVS Caremark's MinuteClinic Becomes First Retail Clinic Provider to Achieve Consecutive Accreditation Awards from the Joint Commission," 2010.

Public Law 111-148, Patient Protection and Affordable Care Act, March 23, 2010.

RediClinic, "Our Affiliates," web page, undated. As of March 5, 2010: <http://www.rediclinic.com/partners.asp>

Ridgway, C., email to Ateev Mehrotra regarding retail clinic utilization, February 4, 2010.

Robeznieks, A., "Look Who's Buying Retail: Hospitals, Health Systems, and Even Physician Groups Are Getting Involved in the Latest Wave of 'Convenient-Care' Clinics," *Mod Healthc*, Vol. 37, No. 46, November 19, 2007, pp. 26–28.

Rohrer, J. E., K. B. Angstman, and G. A. Bartel, "Impact of Retail Medicine on Standard Costs in Primary Care: A Semiparametric Analysis," *Population Health Management*, Vol. 12, No. 6, 2009, pp. 333–335.

Rohrer, J. E., K. B. Angstman, and J. W. Furst, "Impact of Retail Walk-in Care on Early Return Visits by Adult Primary Care Patients: Evaluation Via Triangulation," *Qual Manag Health Care*, Vol. 18, No. 1, January–March 2009, pp. 19–24.

- Rohrer, J. E., K. M. Yapuncich, S. C. Adamson, and K. B. Angstman, "Do Retail Clinics Increase Early Return Visits for Pediatric Patients?" *J Am Board Fam Med*, Vol. 21, No. 5, September–October 2008, pp. 475–476.
- Roizen, M., and M. Oz, "Walk-in Clinic Is Right Place to Get Treatment for Some—Not All—Ailments," *St. Paul Pioneer Press*, October 10, 2009.
- Rothman, R., R. Malone, B. Bryant, C. Horlen, and M. Pingnone, "Pharmacist Led, Primary Care-Based Disease Management Improves Hemoglobin A1c in High-Risk Patients with Diabetes," *American Journal of Medical Quality*, Vol. 18, 2003, pp. 51–58.
- Rozga, K., "Retail Health Clinics: How the Next Innovation in Market-Driven Health Care Is Testing State and Federal Law," *Am J Law Med*, Vol. 35, No. 1, 2009, pp. 205–231.
- Rudavsky, R., and A. Mehrotra, "Sociodemographic Characteristics of Communities Served by Retail Clinics," *J Am Board Fam Med*, Vol. 23, No. 1, January–February 2010, pp. 42–48.
- Rudavsky, R., C. E. Pollack, and A. Mehrotra, "The Geographic Distribution, Ownership, Prices, and Scope of Practice at Retail Clinics," *Ann Intern Med*, Vol. 151, No. 5, September 1, 2009, pp. 315–320.
- Sack, K., "In Massachusetts, Universal Coverage Strains Care," *New York Times*, April 5, 2008.
- Scott, M. K., *Health Care in the Express Lane: The Emergence of Retail Clinics*, Oakland, Calif.: California HealthCare Foundation, 2006.
- _____, *Health Care in the Express Lane: Retail Clinics Go Mainstream*, Oakland, Calif.: California HealthCare Foundation, 2007.
- _____, *Adapting the Retail Clinic Model to Community Health Centers: A Guide and Toolkit*, Oakland, Calif.: California HealthCare Foundation, 2008.
- Takach, M., and K. Witgert, *Analysis of State Regulations and Policies Governing the Operation and Licensure of Retail Clinics*, National Academy of State Health Policy, 2009.
- Thygeson, N. M., *Retail Clinics—Cost Saving, or Just Convenient?* Washington, D.C.: Institute of Medicine, 2009.
- Thygeson, M., K. A. Van Vorst, M. V. Maciosek, and L. Solberg, "Use and Costs of Care in Retail Clinics Versus Traditional Care Sites," *Health Aff (Millwood)*, Vol. 27, No. 5, September–October 2008, pp. 1283–1292.
- Tu, H. T., and G. R. Cohen, "Checking Up on Retail-Based Health Clinics: Is the Boom Ending?" *Issue Brief (Commonw Fund)*, Vol. 48, December 2008, pp. 1–11.
- U.S. Department of Health and Human Services, "Obama Administration Details Healthy Food Financing Initiative," web page, February 19, 2010. As of May 12, 2010:
<http://www.hhs.gov/news/press/2010pres/02/20100219a.html>
- Walgreens, "Walgreens and Take Care Health Systems Are Prepared to Educate Patients and Provide Relevant Resources on H1N1 Flu," web page, April 29, 2009. As of February 5, 2010:
http://news.walgreens.com/article_display.cfm?article_id=5183
- Wang, M. C., G. Ryan, E. A. McGlynn, and A. Mehrotra, "What Makes Retail Clinics Attractive: Lessons from Patients' Experience," *American Journal of Medical Quality*, Vol. 25, No. 2, 2010, pp. 128–134.
- Watson Wyatt Worldwide, *Realizing the Potential of Onsite Health Centers*, 2008.
- Weinick, R. M., and R. M. Betancourt, *No Appointment Needed: The Resurgence of Urgent Care Centers in the United States*, Oakland, Calif.: California HealthCare Foundation, 2007.
- Weinick, R. M., S. J. Bristol, and C. M. DesRoches, "Urgent Care Centers in the U.S.: Findings from a National Survey," *BMC Health Services Research*, Vol. 9, No. 79, 2009.
- Wolf, C., "CVS to Double In-Store Clinics After Health-Care Law (Update2)," Bloomberg.com, web page, April 13, 2010. As of May 21, 2010:
<http://www.bloomberg.com/apps/news?pid=conewsstory&tkr=CVS:US&sid=a4mBdrigLAtw>

Woodburn, J., "James Woodburn, MD: On Retail-Based Health Clinics," *Healthc Financ Manage*, Vol. 61, No. 3, March 2007, pp. 30, 32.

Woodburn, J. D., K. L. Smith, and G. D. Nelson, "Quality of Care in the Retail Health Care Setting Using National Clinical Guidelines for Acute Pharyngitis," *Am J Med Qual*, Vol. 22, No. 6, November–December 2007, pp. 457–462.

Yee, C. M., "HCMC Is Late Entry in Twin Cities Retail Clinic Race," *Star Tribune* (Minneapolis–St. Paul), April 13, 2010.