The **Advisory Board** Company

Marketing and Planning
Leadership Council

Maximizing Primary Care Access

Marketing and Planning Leadership Council

Project Director

Alicia Daugherty

Contributing Consultants

Jared Landis

Alec Latimer

Richard Saunders

Design Consultant

Sarah Avery

Managing Director

Shay Pratt

Table of Contents

Available Within Your Marketing and Planning Leadership Council Membership

The Marketing and Planning Leadership Council has developed a suite of resources to assist member organizations in developing a strategic approach to ambulatory care. Research and services include research briefing that profile case studies of ambulatory care models at progressive institutions, online tools to aid in ambulatory care planning, and deep-dive webconferences covering discrete outpatient growth challenges. All resources are available in unlimited quantities through the Marketing and Planning Leadership Council membership.

Comprehensive Support on Ambulatory Care Strategy

Primary Care Access Opportunity Audit
Eight-part toolkit to evaluate opportunity for expanding capacity by implementing practice productivity enhancements and network expansion efforts

Primary Care Volume Estimator
Web-based tool that uses claims data to calculate projected primary care utilization on a county-level basis and determine the number of PCPs needed to meet demand

Ambulatory Facility of the Future, Part I
Explores emerging infrastructure standards and design elements in light of reform, innovation, and economic trends

Ambulatory Facility of the Future, Part II
Examines strategic considerations around the distribution of outpatient facilities and the pacing of development

Outlook for Outpatient Growth
Profiles key factors influencing outpatient growth strategy in the post-reform era

Outlook for Urgent Care and Retail Services
Outlines key trends affecting strategy for "on-demand" services and examines how institutions are repositioning these assets

Outlook for Ambulatory Surgery and Imaging Centers
Evaluates the impact of payment reforms for ASCs and outpatient imaging centers and offers guidance on identifying strategic opportunities

To Access or Order Via Advisory.com

To access these and other Marketing and Planning Leadership Council presentations and publications, please visit our website: www.advisory.com/mplc

To Access Data and Analytic Tools

To access these and other Marketing and Planning Leadership Council tools, please visit our website: www.advisory.com/mplc/tools

Beyond the Marketing and Planning Leadership Council: Crimson Continuum of Care

In addition to the resources available through the Marketing and Planning Leadership Council membership, The Advisory Board Company offers Crimson Continuum of Care.

Crimson Continuum of Care places credible, severity-adjusted performance profiles directly in the hands of physicians, enabling the care coordination needed to drive quality improvement and cost reduction across all care settings.

Improve Cost and Quality Performance in the Ambulatory Setting

As ambulatory performance management becomes an area of growing strategic importance for health care organizations, Crimson Continuum of Care provides physicians and hospital executives with severity-adjusted performance profiles that showcase the full clinical and financial picture of performance. By combining business intelligence technology with dedicated implementation, Crimson Continuum of Care enables organizations to achieve an unparalleled level of alignment and coordination with employed and independent physicians alike.

Manage the Employed Medical Staff

Crimson Continuum of Care seamlessly integrates ambulatory performance data and automates tracking of PQRS measures.

Build the Infrastructure for Clinical Integration

Crimson Continuum of Care paves the way for successful FTC review and supports the development, deployment, and refinement of program measures to attract key payers.

Case in Brief: General Hospital[1]

Boosting Compliance with PQRS Measures

- 50% 2007
- 70% 2009
- 100% 2011
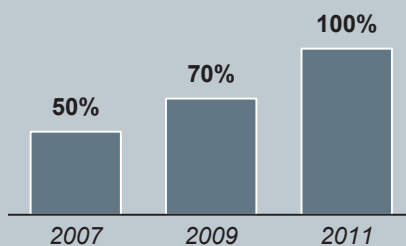
Case in Brief: Memorial Hermann Health System

Attracting a Large, Diverse Physician Group

- 50 Employed
- 600 Academic
- 1,400 Independent
- 2,050 Total
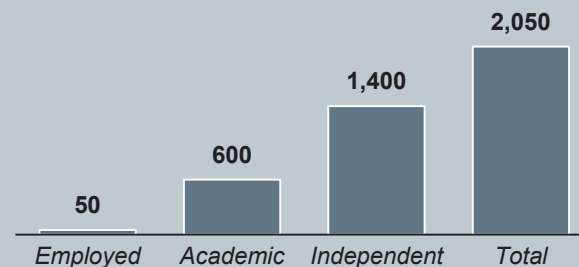
Contact Us

For additional information on Crimson Continuum of Care, please visit our website: http://www.advisory.com/technology/crimson-continuum-of-care

1) Pseudonym.

Advisors to Our Work

The Council would like to express its deep gratitude to the individuals and organizations that shared their insights, analysis, and time with us. The research team would especially like to recognize the following individuals for being particularly generous with their time and expertise.

With Sincere Appreciation

Capital Region Medical Center
Jefferson City, Missouri
Amy Berendzen

Central Kansas Medical Center
Great Bend, Kansas
Tom Fritz

Clinica Campesina
Denver, Colorado
Carolyn Shepherd, MD

Cook Children's Health Care System
Fort Worth, Texas
Larry Tubb

Eastern Maine Health Systems
Brewer, Maine
Jean Mellett

Gundersen Lutheran Health System
La Crosse, Wisconsin
Pamela Maas
Mike McKee

Harris County Hospital District
Houston, Texas
Ronald Johnson

Heritage Valley Health System
Beaver, Pennsylvania
Michael Baker
John Luellen

Hospital Sisters Health System,
Prevea Health
Green Bay, Wisconsin
Mark Hillesheim

Kaiser Permanente
Oakland, California
Peggy Chi
Kate Christensen, MD
Michele Flanagin
John Kouletsis
Abby Oliver
Lisa Ryan

Main Line Health
Bryn Mawr, Pennsylvania
Morris Fansler

Memorial Hermann Healthcare System
Houston, Texas
Monica Carbajal, MD
Patricia Metzger

Mercy Health Partners
Toledo, Ohio
Dan Ahern
Julie Georgoff

MGH-Beacon Hill
Boston, Massachusetts
Ronald Dixon, MD

North Shore Medical Center
Salem, Massachusetts
Jen Beers
Pamela Lawrence

North Shore Physicians Group
Salem, Massachusetts
Stephen Kapfhammer
Sharon Lucie
Maury McGough, MD

Shands Healthcare
Gainesville, Florida
Mitchell Herbert
Southeast Alabama Medical Center
Dothan, AL
Sue Esslinger

University of Pittsburgh Medical Center
Pittsburgh, Pennsylvania
David Russell
Linda Siminerio, MD

Vanderbilt University Medical Center
Nashville, Tennessee
Jill Austin
Betsy Brandes
Jackie Moreland, RN
Terrell Smith
Candace Tillquist, MA

WakeMed Health and Hospitals
Raleigh, North Carolina
Carolyn Knaup

Wellspan Health
York, Pennsylvania
Patrick Ball

West Penn Allegheny Health System
Pittsburgh, Pennsylvania
Bob Edmondson

Wuesthoff Health System
Rockledge, Florida
Johnette Gindling

Executive Summary

Intensifying Focus on Primary Care

Ambulatory growth is now a strategic priority for many hospitals and health systems. Organizations are employing an increasing number of primary care physicians to mitigate referral disruptions and ensure downstream volume capture. Providers also require closer alignment with primary care to manage an aging, chronically ill population. Payment reform will further heighten the focus on primary care; emerging payment models, including readmissions penalties, episodic bundled payments, and shared savings programs, each require effective ambulatory patient management for hospitals to succeed under new incentives.

Numerous Barriers to Primary Care Access

Primary care utilization will grow from 494 million to more than 590 million visits by 2020. However, accommodating this demand will be challenging. The nation's primary care capacity is already backlogged—appointment wait times average 20 days—and the primary care physician (PCP) shortage is only expected to worsen. In addition, only half of adults receive guideline-recommended preventive and chronic care, suggesting significant latent demand that, if unmet, will result in unnecessary, low-margin inpatient utilization as the population ages and sickens. To meet these care needs and ensure return on investment of employed primary care practices, providers must expand primary care access well beyond current levels.

Strategic Priorities for Ambulatory Care

To expand access to primary care services amid the provider shortage, hospitals and health system leaders must partner with primary care colleagues to improve physician practice productivity and supplement practice offerings with an integrated network of alternative care sites.

Priority #1: Elevating Practice Productivity

With the PCP shortage expected to reach 65,000 by 2025, few health systems will be positioned to expand access through PCP employment or alignment alone. Asking physicians to work longer hours is also likely unviable: 53% of PCPs already report feeling significant time pressure, and younger physicians are prioritizing work-life balance. Providers and health systems must instead evaluate new care delivery models and strategies, including:

1. Migrating primary care practices toward ideal practice size
2. Strengthening care teams through more effective use of midlevel providers, clinical assistants, and even front-office staff
3. Implementing group visits for targeted populations
4. Deploying system resources to support practice efficiency improvements
5. Redesigning facilities for next-generation care processes

Priority #2: Leveraging the Coordinated Network

Even when operating efficiently, primary care practices alone will not be able to meet expected demand. However, few alternative care sites exist, and those that do often suffer from a limited scope of services and poor integration from both a care delivery and referrals perspective. Provider and health systems must integrate additional access points to supplement capacity and increase market share by:

6. Tapping key stakeholders for targeted network siting
7. Catalyzing growth through co-location
8. Off-loading care to integrated convenient care clinics
9. Increasing worksite clinic presence
10. Offering e-visits based on payer and market receptivity

This publication examines the major challenges facing hospital strategists, business developers, and marketing executives as they prepare their organizations for ambulatory volume growth and profiles successful strategies used by progressive organizations to expand primary care access.

Introducing the Primary Care Volume Estimator

To assist members with planning primary care strategy, the Primary Care Volume Estimator provides projections of the size of local primary care markets and the number of FTE primary care physicians necessary to handle primary care volumes.

Members can use the Primary Care Volume Estimator to generate visit volume estimates at a county level. An interactive map allows users to click through to the county of interest. The tool then displays primary care volume estimates by age cohort for the county and the corresponding number of FTE primary care physicians that would be necessary to accommodate estimated volumes. In addition, users can view additional data analyses including 5- and 10-year projections of county-level primary care volume. Customized zip code-level estimates are also available upon request.

Online Tool in Brief

Customized Visit Estimates for User-Selected Geographies
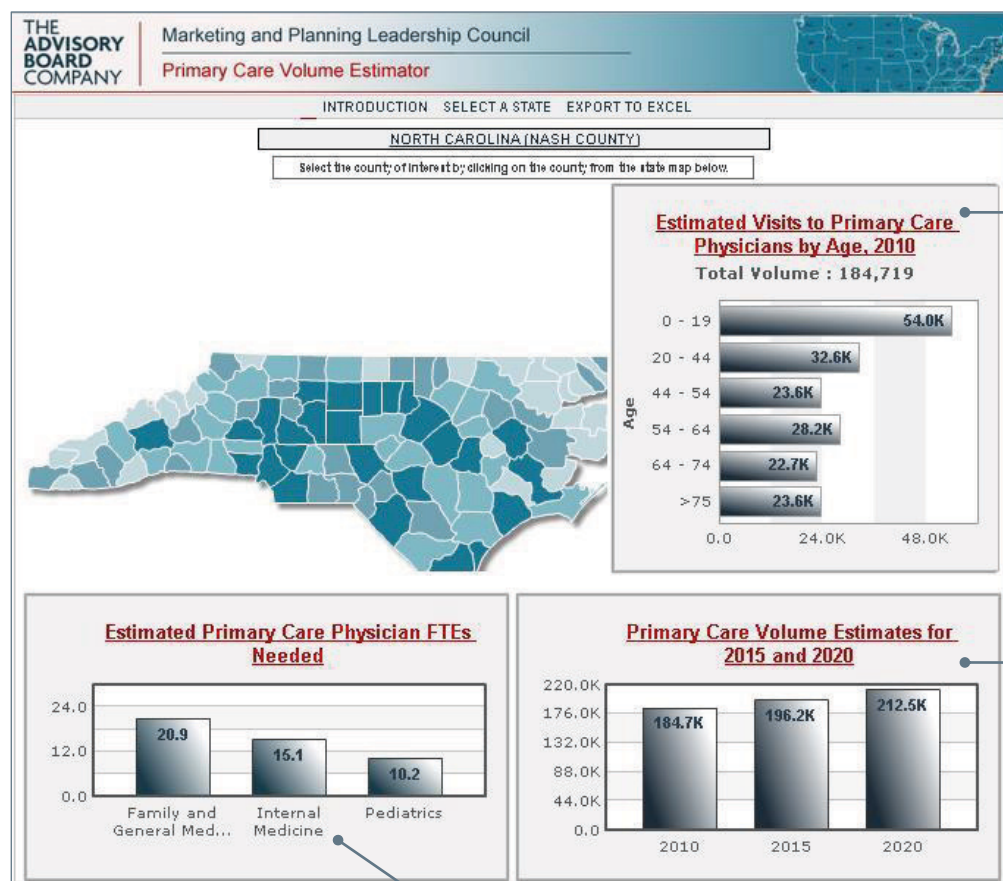
Visit estimates by county and age cohort

Demographic and utilization-based projections

Estimated number of PCPs required to meet demand

The Ambulatory Growth Imperative

PCP "Land Grab" Underway

In recent years, hospitals and health systems have employed an increasing number of primary care physicians. A recent Advisory Board survey showed that organizations are projected to employ at least 40 percent of their primary care workforce by 2012. For their part, medical groups are also actively recruiting primary care physicians.

Primary Care Prioritized by Both Hospitals and Physician Groups

Percentage of "Active" PCPs Employed by Hospitals

- 2000: 18%
- 2004: 22%
- 2008: 31%
- 2012 (E): 40%

Medical Groups Ranking Specialty as Top Recruitment Priority, 2010

n=62

- Internal Medicine: 31%
- Family Medicine: 24%
- Neurology: 7%
- Orthopedic Surgery: 3%
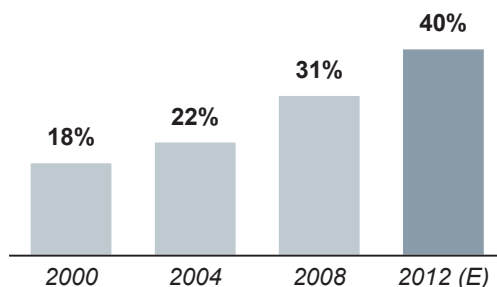
Medical Groups Planning to Employ More PCPs in Next Year, 2010

n=62

83%
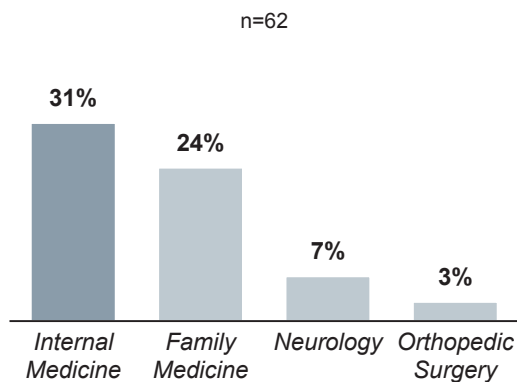
> ❝
>
> ### Rushing to the Altar
>
> "It's now the great arms race for primary care."
>
> *Thomas Dennison, PhD*
> *Director, Health Services Management and Policy*
> *Syracuse University*

Supply Concerns Creating Alignment Urgency

PCP employment is being driven by several market trends. First, the nation will face a significant PCP shortage across the next decade. PCP practices are struggling financially and primary care physicians report high rates of stress and job dissatisfaction. According to 2008 survey data, nearly three-quarters of PCPs were concerned about the financial viability of their practices in the immediate future.

PCPs lag well behind other specialists in income, with the median PCP income of $201,500 compared to a median income of nearly $377,000 across all specialists. Nationwide, this income gap means that PCPs earn about 53 percent of what specialists earn.

Relatively few American medical school graduates are seeking out residency programs in primary care. Only 45 percent of 2010 family medicine residency slots went to new US medical graduates, and one in ten went unfilled.

PCP Shortage Expected to Worsen

Projected Physician Shortages, 2010

	2010	2015	2025
All Physicians	13,700	62,900	130,600
Primary Care	9,000	29,800	65,800
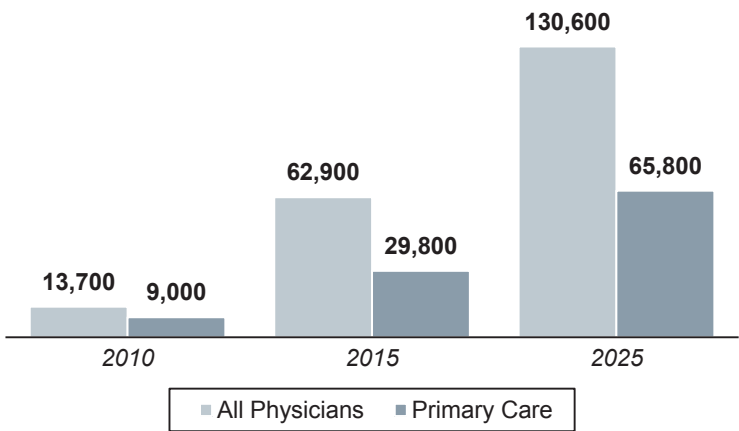
Median Physician Compensation, 2009

Orthopedic Surgery	Diagnostic Radiology	All Specialties	OB/GYN	Family Medicine
$524,259	$515,354	$376,804	$311,427	$201,512

Average family medicine physician earns 53% of average specialist physician
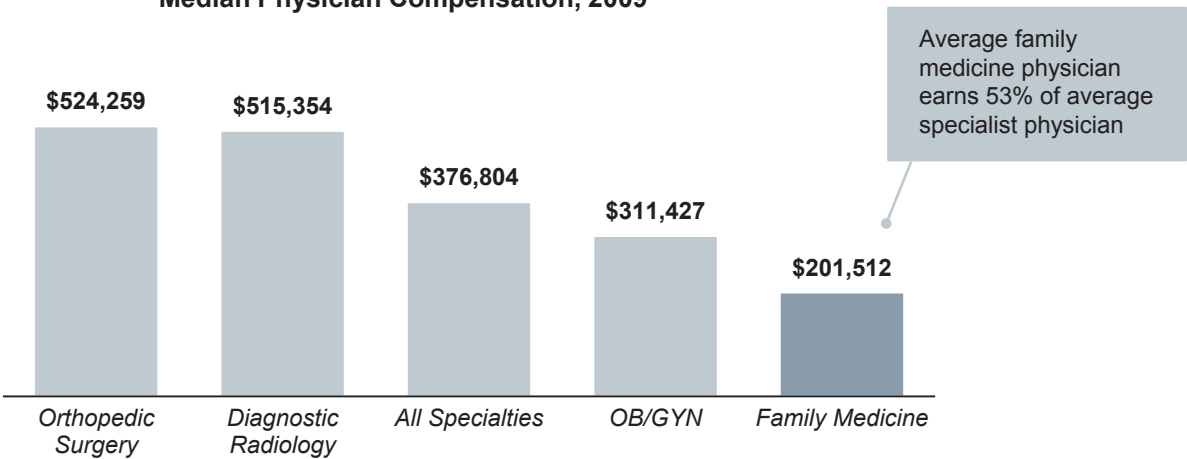
Source: Physician Compensation and Production Survey, Medical Group Management Association, 2010; "Advance Data Tables: 2010 Main Residency Match," National Residency Matching Program, April 2010; Marketing and Planning Leadership Council interviews and analysis.

Looking to Prevent a Referral Lockout

As more PCPs seek financial security through employment, many hospital leaders feel that if they do not offer employment in the near term, the inability of the open market to match PCP supply with demand will put hospitals' growth goals at risk. Employed primary care practices generate significant downstream revenue for their affiliated hospitals, with the average PCP generating approximately $1.4 million in hospital revenue per year.

Hoping to Benefit Downstream

Average Revenue Generated per PCP for Affiliated Hospitals per Year
2010

$1,987,253 — Internal Medicine

$1,615,828 — Family Practice

$697,516 — Pediatrics

Average across PCPs: $1,399,109
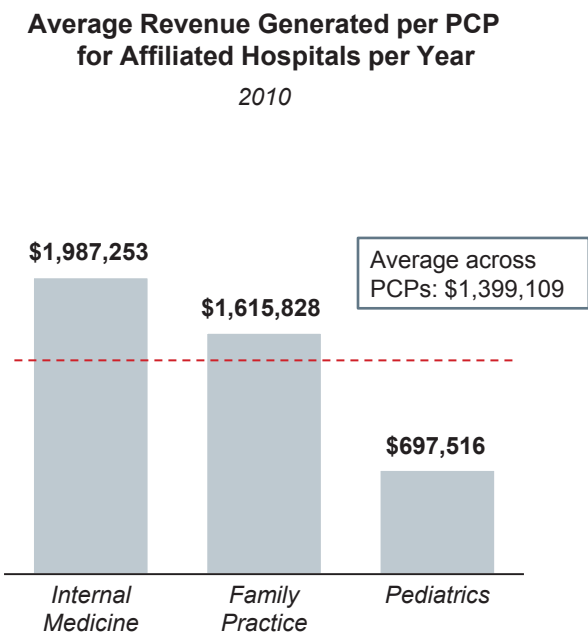
Downstream Impact of Primary Care at Ohio State University Medical Center
In Millions, 2004[1]

$254.1 — Gross Revenue

$114.7 — Net Revenue

$51.9 — Contribution Margin
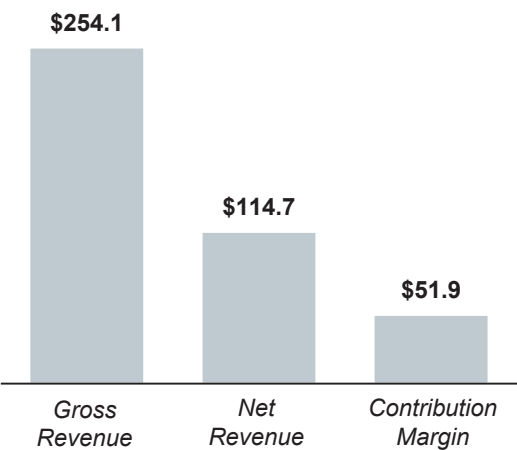
1) 18 practice sites with 76 full-time and part-time physicians. Results do not include downstream professional fees received by specialists from both inpatient and outpatient activities.

Payment Reform Furthering Hospital Focus on Primary Care

Payment reform "accelerators" are further intensifying the focus on primary care for hospitals and health systems. Stronger primary care will be essential for success under a variety of emerging payment models, including penalties for 30-day readmissions, episodic bundled payments that include 30 days post-discharge, and shared savings programs featuring accountable care organizations (ACOs). By rule, hospitals cannot create ACOs without primary care physicians, and closer alignment will be essential to effectively manage population health.

Primary Care Essential to Success Under New Payment Models
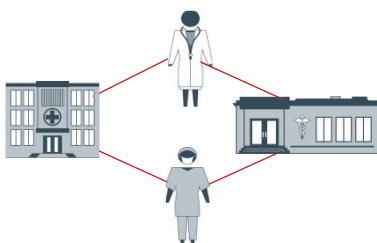
Accountable Care Organizations

- Primary care physicians are required for participation in 2012 Medicare Shared Savings Program

- PPACA statute specifies that ACOs must have a sufficient number of primary care professionals for the number of assigned beneficiaries (5,000 minimum)
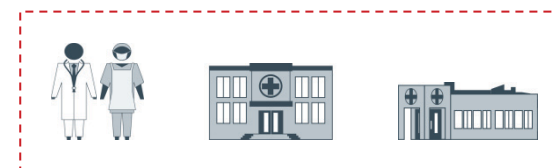
Episodic Bundled Payments

- Primary care is an important element of episodic bundled payment including 30 days post-discharge

- CMS bundled payment pilot due to launch in 2013 includes three days prior to admission, acute care admission, and at least 30 days post-discharge
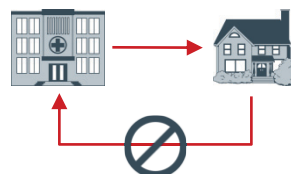
30-Day Hospital Readmissions

- Primary care is an important component of hospital readmissions and discharge programs

- Patients who have a PCP appointment post-discharge are less likely to be readmitted

Source: Marketing and Planning Leadership Council interviews and analysis.

Primary Care Delivery Challenged by Future Demand Growth

To ensure referral capture and better manage population health, hospitals and health systems must provide convenient, coordinated primary care services. However, ensuring sufficient access to care will be increasingly difficult as demand grows. Primary care visits will grow from 494 million to more than 590 million visits by 2020, driven by an aging population, increased prevalence of chronic conditions, and coverage expansion from the 2010 Patient Protection and Affordable Care Act.

A Steady March of Demand

Evaluation and Management Services Volume Forecast
In Millions, 2010–2020

Legend: All Office Visits, PCP Visits

All Office Visits: 824 (2010), 875 (2015), 973 (2020)
PCP Visits: 494 (2010), 523 (2015), 597 (2020)

Source: Advisory Board Data and Analytics Group.
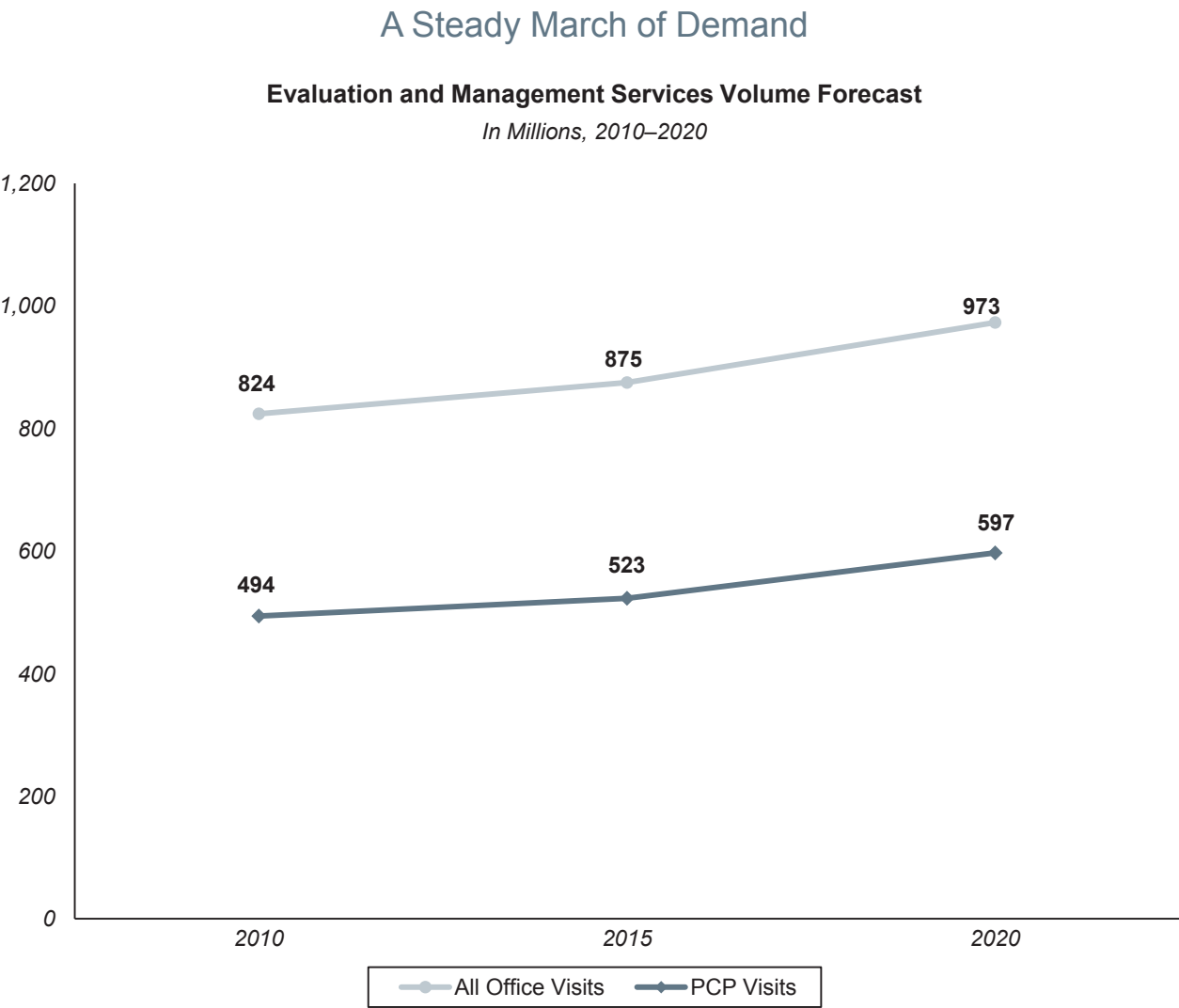
Aging Baby Boomers Requiring More Visits

Much of this demand growth is driven simply by demographic changes. More Baby Boomers are enrolling in Medicare, with 20 percent of the US population estimated to be age 65 or older by 2020. As individuals age, their primary care utilization increases. On average, Medicare-age individuals visit a primary care physician at least three times per year.

Primary Care Utilization by Age Cohort

Estimated US Average PCP Visits per Year
2008

	Under 15	15–24	25–44	45–64	65-75	75+
Female	1.50	1.41	1.72	2.29	3.50	4.23
Male	1.54	0.64	0.90	1.73	3.23	4.14

■ Female ■ Male

Estimated Change in PCP Visits
2010–2020

Age 65+	Total Population
41%	15%
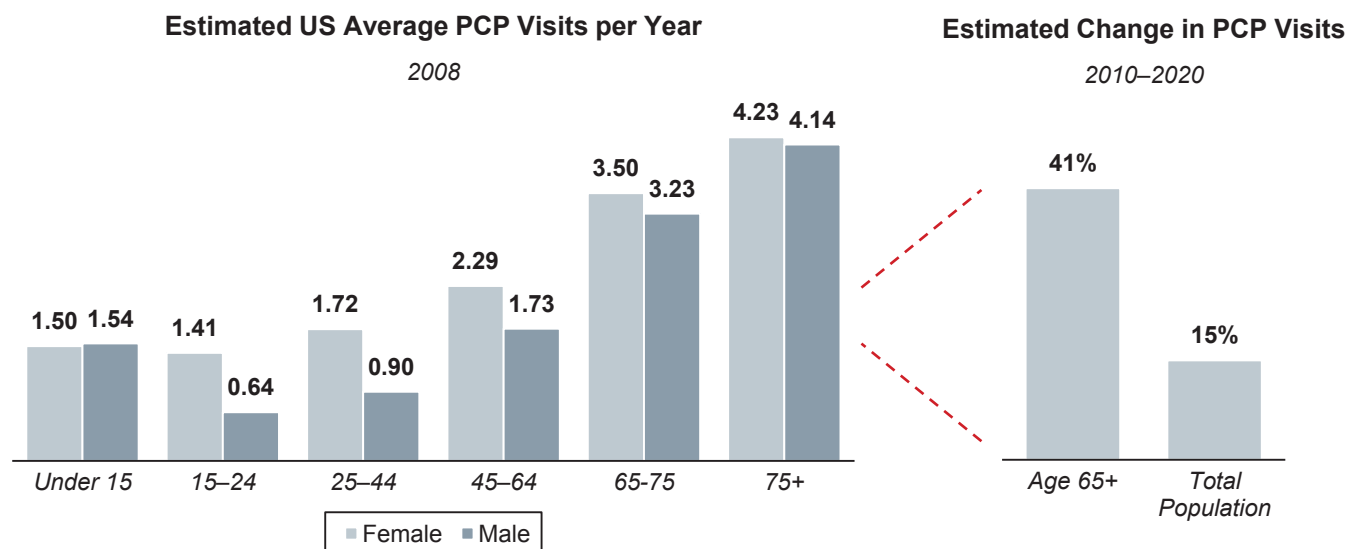
Rise in Chronic Disease Escalating Visit Volume, Length

These patients will also be more complex. The prevalence of chronic conditions has increased significantly in recent years. By 2016, more than 30 percent of hospital inpatients will suffer from four or more chronic conditions. Ensuring sufficient primary care capacity will be essential to effectively manage patients with chronic conditions to improve margin performance on complex, low-paying medical admissions; decompress emergency departments; and direct patients to the most appropriate care settings.

13% Americans who are age 65 and older in 2008; 35 million people

20% Americans who are aged 65 and older in 2030; 70 million people

An Older, Sicker Population

Treated Prevalence of the Top Health Conditions Among Medicare Beneficiaries

Legend: ■ 1987 ■ 2006

Source: Marketing and Planning Leadership Council interviews and analysis.
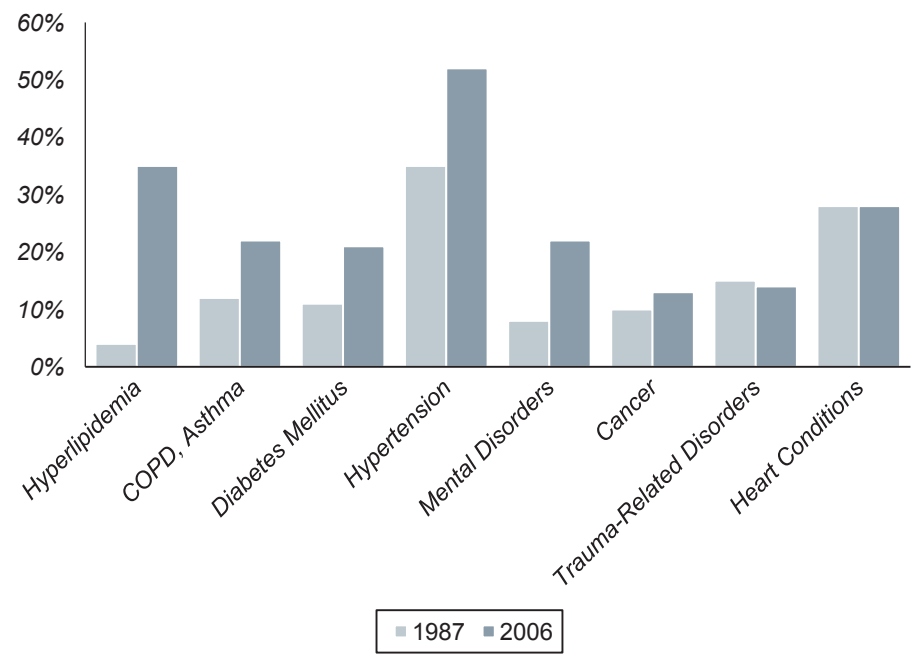
Projections Fail to Capture Significant Latent Demand

Perhaps even more concerning, future visit estimates reflect provision of services at current levels and do not include the significant amount of primary care needs that go unmet. Today, only 56 percent of patients receive recommended chronic care, and 54 percent receive recommended preventive care. Expanding access for this latent demand will be important for organizations as they are increasingly held accountable for the cost, quality, and utilization of health care.

Falling Short on Chronic Care

Percent of Patients Receiving Recommended Care

Patients Receiving Recommended Chronic Care

Patients Receiving Recommended Preventive Care

n=13,275

56%

54%
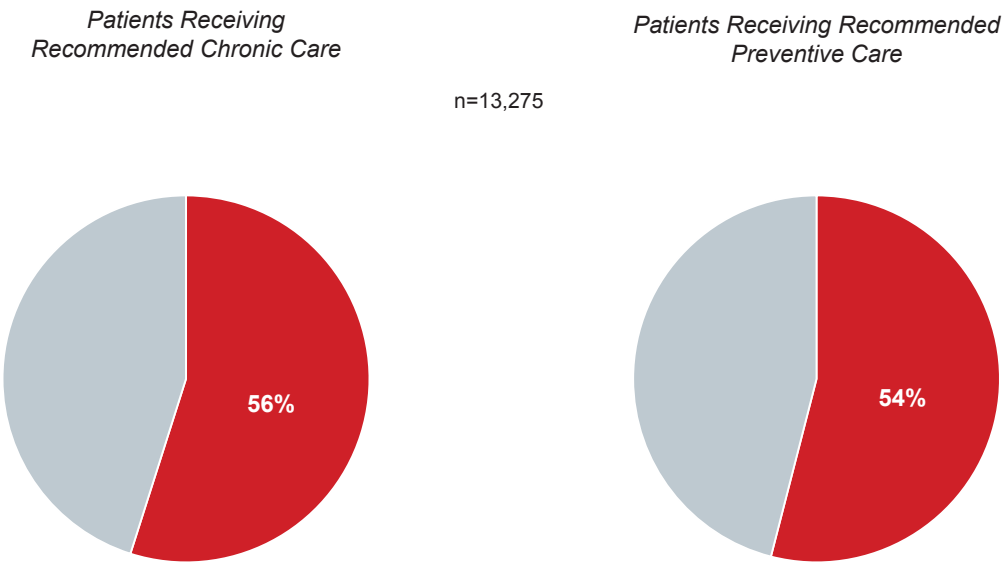
Source: Asch S, et al., "Who is at Greatest Risk for Receiving Poor-Quality Health Care?," *New England Journal of Medicine*, 2006, 354:11; 2009; Marketing and Planning Leadership Council interviews and analysis.

Capacity Already Overwhelmed

Despite the significant underprovision of care, in many markets, current demand is already overtaking supply. On average, it takes 20 days to get an appointment, with some metropolitan areas seeing wait times of 30 to 60 days.

Primary Care Appointment Wait Times on the Rise

Average Days to Appointment for Family Practice
2009

63		
Boston		

Average wait time nationwide: 20.3 days

Boston	Los Angeles	Washington, DC	New York
63	59	30	24

PCP Appointments Made Within One Week
Massachusetts

2006	2007
53%	42%

New Terrain for Many Institutions

As providers struggle to confront the primary care access challenge, many find themselves on unfamiliar ground. Providing ambulatory care is still a new competency for many hospitals and health systems. Across the past decade, hospitals have primarily prioritized outpatient procedural growth, including ambulatory surgery and outpatient imaging. Hospitals currently manage about one fifth of ambulatory care visits, with the majority of those occurring in the emergency department.

A recent survey of Marketing and Planning Leadership Council members revealed widespread concern regarding the ability of organizations to provide sufficient ambulatory care access, manage chronic disease, engage patients in their care, and market primary care services.
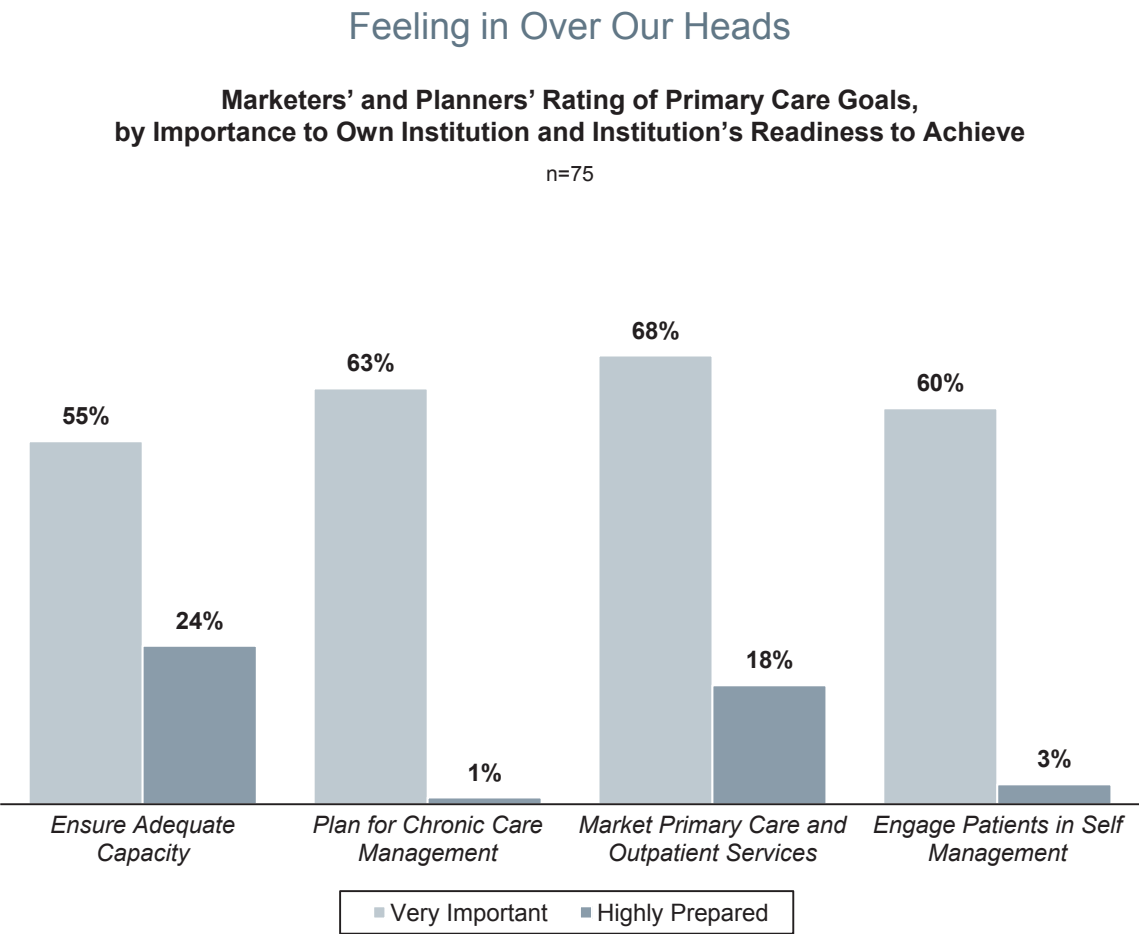
Feeling in Over Our Heads

Marketers' and Planners' Rating of Primary Care Goals, by Importance to Own Institution and Institution's Readiness to Achieve

n=75

Goal	Very Important	Highly Prepared
Ensure Adequate Capacity	55%	24%
Plan for Chronic Care Management	63%	1%
Market Primary Care and Outpatient Services	68%	18%
Engage Patients in Self Management	60%	3%

■ Very Important   ■ Highly Prepared

Often Ceding Significant Share

Perhaps as a result of this lack of experience, not only are hospitals and health systems unable to provide access for new patients, they are also leaking significant market share among their current patients. A recent study of one hospital's Medicare market share revealed that while it maintained an 80 percent share of inpatient care, it received only 36 percent of hospital outpatient visits for those same hospitalized patients after discharge.

Unfortunately, Felton Medical Center's[1] experience is not unusual. Nationwide, consumers exhibit a surprising lack of loyalty when seeking ambulatory care. Only half of US adults say they would be willing to remain loyal to a group responsible for their health care, such as an accountable care organization.

Consumers Showing Little Loyalty to Outpatient Providers

Outpatient Medicare Leakage Analysis for Felton Medical Center

Share of Hospital Outpatient Visits from Admitted Medicare Beneficiaries

7,990 Medicare beneficiaries admitted in 2008

80% Share of inpatient admissions from those beneficiaries

36%
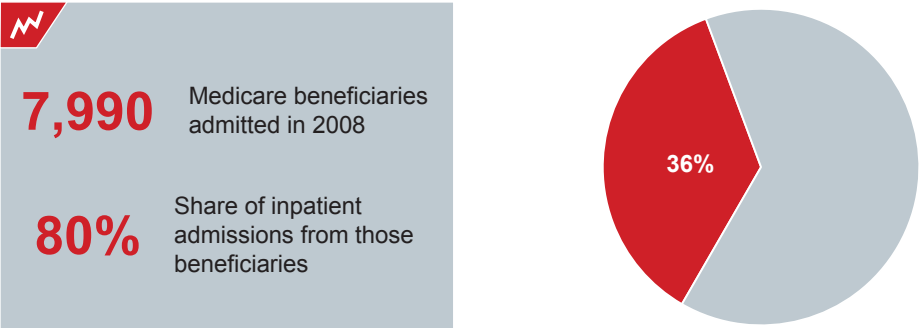
Consumers Willing to Always Stay Within a Group Responsible for Their Care

2010

Region	Medicare	All Adults
New England	57%	49%
Mid-Atlantic	52%	47%
Mountain	8%	28%
Pacific	44%	51%

■ Medicare ■ All Adults
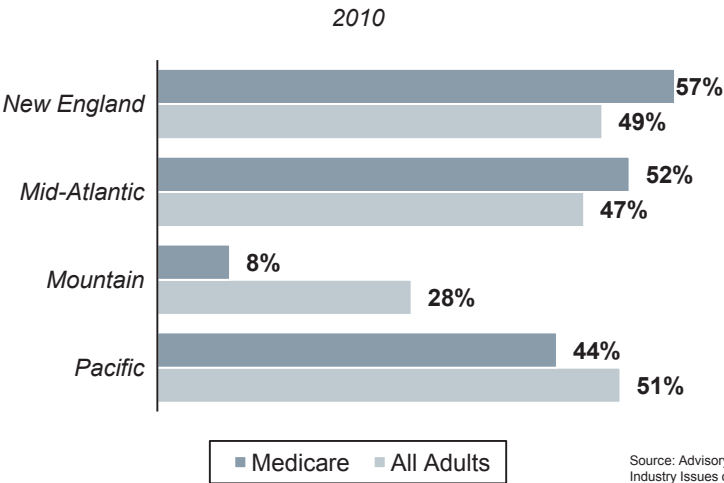
1) Pseudonym.

Three Barriers to Capturing Ambulatory Demand

Given the strategic importance of ambulatory care, hospital planners, marketers, and business developers will need to address three specific challenges to ensure sufficient access for growth and engender greater patient loyalty.

First, organizations must modify primary care practice design to increase timely access. Second, providers will need to evaluate and create additional access points, such as urgent care and convenient care, to supplement primary care capacity and increase ambulatory share. Finally, organizations must integrate new ambulatory offerings with the broader health system to capture referrals and build patient loyalty.

Practices Not Primed for Access

- Outmoded practice operations
- Episodic care design
- Suboptimal practice scale
- Underutilization of mid-level providers

Poor Network Design
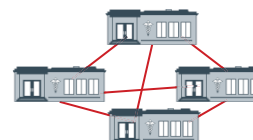
- Practices uncoordinated with alternative sites of care
- Failure to partner with employers and other key stakeholders
- Practices resistant to offloading demand to other quality venues

Extensive Outpatient Leakage

- Consumers unaware of ambulatory service offerings
- New outpatient, primary care investments not sufficiently linked to health system

Source: Marketing and Planning Leadership Council interviews and analysis.

10 Lessons for Maximizing Primary Care Access

To address these challenges, the Marketing and Planning Leadership Council has identified ten strategies for improving primary care access by increasing physician practice productivity and integrating alternative care delivery sites.

I

Elevating Practice Productivity

1. Migrate toward ideal practice size

2. Strengthen care teams

3. Implement group visits for targeted populations

4. Deploy system resources for practice efficiency improvements

5. Design facility space for next-generation care processes

II

Leveraging the Coordinated Network

6. Tap key stakeholders for targeted network siting

7. Catalyze growth through co-location

8. Off-load care to integrated convenient care clinics

9. Increase worksite presence

10. Offer e-visits based on payer, market receptivity

Elevating Practice Productivity

Priority #1: Elevating Practice Productivity

To accommodate more primary care demand and increase ambulatory share, hospitals and health systems will need to examine practice productivity and design of both employed and affiliated PCP practices. Given the PCP shortage and the pure logistical challenges associated with increasing productivity of PCPs directly, providers will instead need to evaluate new care delivery models and processes. Key practices include the use of group visits, care teams with top-of-license mid-level providers, external system resources accessible to PCP practices, and next-generation facility designs to accommodate new care processes.

Practice Delivery Redesign to Mitigate Supply Shortage

Options for Improving Primary Care Access
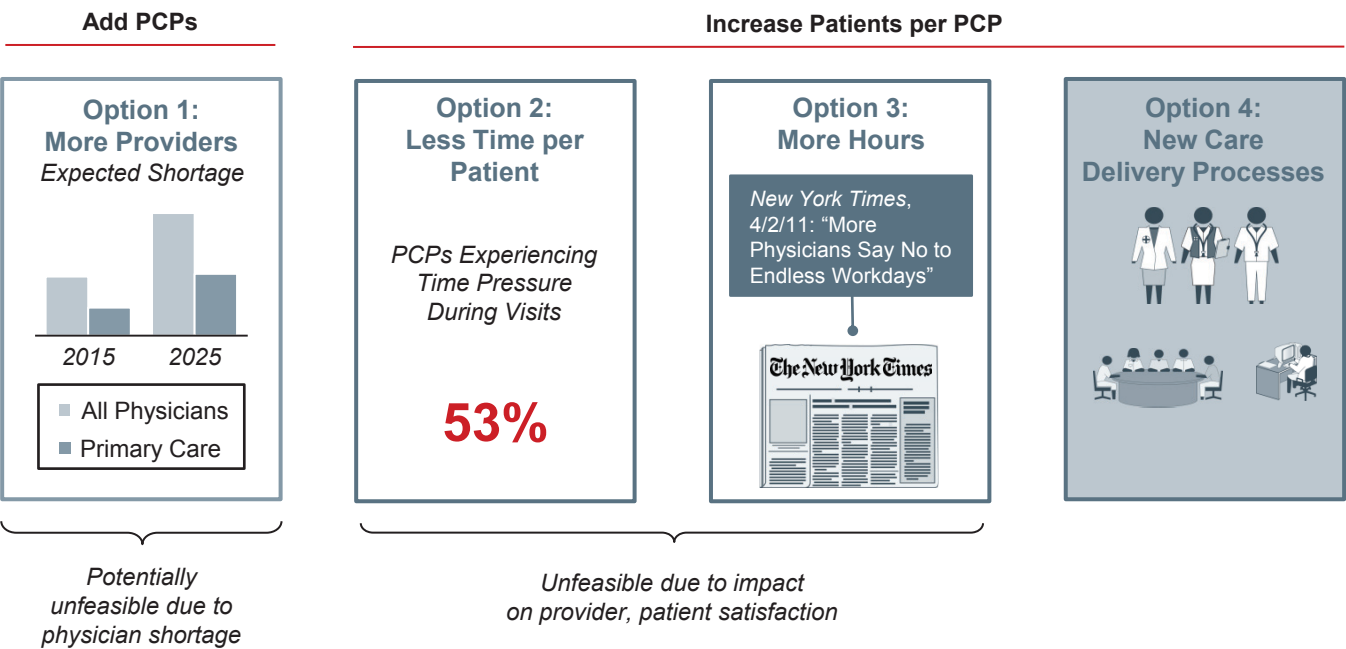
Add PCPs

Increase Patients per PCP

Option 1: More Providers
Expected Shortage

2015   2025

- All Physicians
- Primary Care

Potentially unfeasible due to physician shortage

Option 2: Less Time per Patient

PCPs Experiencing Time Pressure During Visits

53%

Option 3: More Hours

New York Times, 4/2/11: "More Physicians Say No to Endless Workdays"

The New York Times

Unfeasible due to impact on provider, patient satisfaction

Option 4: New Care Delivery Processes

Practice Growth Enables Efficiencies, to a Point

Advisory Board research indicates that the physician practice size "sweet spot" falls between five and nine physicians.

Practices with fewer than five physicians often have difficulty generating sufficient revenue to add care team members and other infrastructure, such as an EMR, that enable access expansion. These practices also struggle to provide coverage for physicians during unexpected leaves or for those who desire part-time or modified schedules.

Practices with 10 or more physicians, however, may experience governance challenges, including difficulty making practice management decisions and managing personality conflicts.

Optimal Practice Size Balances Efficiency, Governance

Ideal Practice Size Between Five and Nine PCPs

Reaching Efficiency Threshold

- Generate sufficient revenue to offset overhead costs
- Optimally distribute robust care team, support staff
- Cross coverage of part-time physicians, unexpected leave

Optimizing Practice Governance and Leadership

- Enables quicker group decisions on practice management, strategy
- Limits personality conflicts between physicians
- Optimally sized for lead representative to engage with broader health system or group leadership

Revenue

Costs

Number of Physicians (2, 4, 6, 8, 10)

"

A Limit to Practice Growth

"The problems of practices being too big are just as important to consider [as being too small]. We've found over years of experimentation that if PCPs are in practices of about six to eight they're fine financially, and the likelihood of group infighting and fracturing decreases dramatically."

President, 700+ Physician Medical Group in Midwest

Source: Medical Economics, available at: www.memag.com, accessed September 30, 2005;
Cost Survey for Multispecialty Practices, Medical Group Management Association, 2006;
Marketing and Planning Leadership Council interviews and analysis.

Employing a Cadre of Lone Wolves

On average, today's hospital-owned practices tend to fall below optimal practice size. Although three-quarters of independent practices have four physicians or more, nearly two-thirds of hospital-owned practices have three or fewer. One reason for this may be that smaller practices are often less financially secure and more likely to seek refuge in hospital employment.

Hospital-Owned Practices Smaller Than Independent Counterparts

**Independent Primary
Care Physician Practices**

2010

n=203

≥ 9 FTE
Physicians

29%

4-8 FTE
Physicians

46%

25%

≤ 3 FTE
Physicians

**Hospital-Employed Primary
Care Physician Practices**

2010

n=483

≥ 9 FTE
Physicians

9%

4-8 FTE
Physicians

26%

65%

≤ 3 FTE
Physicians

Targeting New Practices for Expansion Efforts

To expand practices to optimal size, health systems may either add new physicians to existing practices or consolidate multiple practices into one.

Pseudonymed Mt. Philo Health has encouraged practices to add physicians by establishing such expectations during employment negotiations and embedding growth targets into contracts. Growth targets are based on market potential but typically fall between five and nine PCPs. The system supports growth by offering management support and subsidizing both practice marketing efforts and new physician recruitment; this includes a 20 percent bonus for existing partners for each new physician hire.

Built-In Volume Growth at Mt. Philo[1]

Setting Growth Targets Before Employment	Employment Conditional on Expansion	Generating Surplus Volume	Promoting Provider Compatibility
Target size based on scale efficiencies, market conditions	Employment contracts require adding additional partners	Practice first builds volumes to support hiring additional physician	Existing PCPs select new-hire PCP
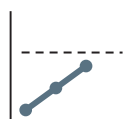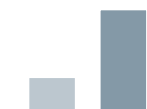
Mt. Philo Health System[1]

- 10-hospital system in the Midwest with 430+ employed physicians: 70% PCPs, 30% specialists
- System begins practice growth conversation with small practices before acquisition, incorporates growth target in employment contracts
- System supports practice volume growth through management support, marketing, recruitment costs, 20% bonus upon provider expansion
- 80% of employed PCP practices breaking even or profitable

1) Pseudonym.

Source: Marketing and Planning Leadership Council interviews and analysis.

Setting Volume Triggers for Adding Physicians

Sustainable pacing of practice expansion has been key to Mt. Philo's success. No new physicians are added during the practice's first year of employment, during which time the system focuses on integrating the practice into the system and building "volume overhang" that organically necessitates additional providers. A new physician is added when visit load per physician exceeds the established threshold by 30% and appointment wait times exceed targets. The process then repeats until the practice has reached target size.

Under this model, 80 percent of employed primary care practices are breaking even or making a profit, and overhead costs per physician FTE have declined by $10,000.

Staged Physician Additions at Mt. Philo[1]

Practice Adds Physicians Until Growth Target Met

New Physician Selected by Existing Partners

Two-Physician Practice Acquired

Physicians

Practice Volume

Practice Volume

Triggers for Expansion
- Practice employed for 12 months
- Total visit load divided by number of physicians 30% above threshold
- Wait times exceed threshold

Year 1   Year 2   Year 3   Year 4   Year 5

$10 K
Reduction in overhead per PCP FTE

Achieving Practice Scale Through Consolidation

Optimal practice scale can also be achieved through consolidation. St. John's Health System in Missouri has located 24 PCPs within a large multispecialty outpatient clinic that also includes 24 specialists, an ambulatory surgery center, outpatient imaging center, and other ancillary services. To prevent conflicts that could arise in such a large PCP group, St. John's organizes the physicians into practice pods of four to six PCPs who share support staff, EMR infrastructure, and exam rooms. The facility features standardized exam rooms and an open pod design to promote physician and care team collaboration and efficient use of space.

Using Virtual Practices to Build Real Efficiencies at St. John's

Geographically Dispersed Practices Consolidated[1]

2 PCPs

1 PCP

St. John's Clinic

3 PCPs

2 PCPs

24 PCPs, 24 Specialists, Imaging, ASC, Ancillary Services
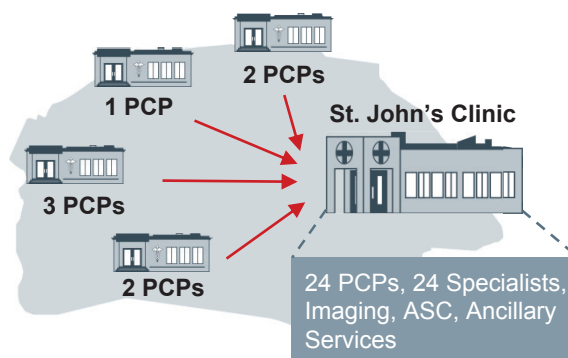
PCPs Divided Into Smaller Practice Pods

- Four to six PCPs per pod limits group conflict, promotes collaboration
- Shared, standardized exam rooms
- Shared support staff
- Open room design better enables physician, care team collaboration

St. John's Health System

- Six-hospital health system in Springfield, Missouri; part of Sisters of Mercy Health System
- Consolidated several owned practices into large multispecialty outpatient center
- Divided providers (including NPs and PAs in primary care) into pods of four to six within new center
- Saved over 18,000 square feet using standardized exam rooms, shared staff, EMR

1) Representative.

Source: Marketing and Planning Leadership Council interviews and analysis.

Selling PCPs on the Benefits of Consolidation

Understandably, some primary care physicians were hesitant to move to St. John's new outpatient clinic. However, PCPs were ultimately attracted to the facility for three key reasons:

1. Enhanced convenience and profitability: Having multiple specialists and services onsite enhances convenience for both patients and PCPs, while reduced overhead costs improve PCP profitability.

2. Technology infrastructure: The clinic's design as a paperless practice environment helps make EMR use convenient for physicians and their staff.

3. Medical home design: The clinic was also designed to enable practices' transition to the medical home model, including features to support team-based care, group visits, and telemedicine.

Whether through addition of physician FTEs or practice consolidation, achieving optimal scale enables practices to support access expansion investments including adding care team members and improving care processes.

Multiple Advantages of New Outpatient Center

Enhancing Convenience and Profitability

- Easy availability of specialists, ancillaries
- Greater convenience for patients
- Lower overhead costs with centralized call center, standardized work spaces, improved ability to share resources

Offering Technology-Enabled Practice Infrastructure

- New facility design wired for maximal use of EMR
- Completely paperless practice environment

Preparing for New Care Models

- Facility layout supports growth of team-based care
- New spaces more conducive to group visits, telemedicine

Source: Marketing and Planning Leadership Council interviews and analysis.

Significant Opportunity to Enhance PCP Support

Care teams expand primary care access by redistributing lower-level care tasks from the physician to other clinicians and support staff, maximizing provider efficiency and top-of-license performance. For example, RNs may take on additional patient education responsibilities while MAs may conduct pre-physician screenings and chart reviews to identify all clinical issues that must be addressed during the visit.

Even front office staff may be trained to collect basic clinical information during appointment reminder calls and to ensure patients have completed necessary pre-visit testing.

Key elements of successful care team implementation include:

- Training care team members for top-of-license care

- Breaking apart roles to distribute tasks more efficiently

- Restructuring productivity incentives to encourage collaboration

- Developing sustained revenue sources to support additional team members

Redefined Individual Roles for Team-Based Care

	Role in Typical Primary Care Office	Role in Team-Based Practice
PCP	• Reactively treats acute conditions in majority of patient visit • Minimal specialist referral follow-up • Little care standardization	• Proactively provides standardized chronic, preventive care • Manages and leads multi-level care team • Coordinates with specialists, hospital to provide cross-continuum care continuity
NP, PA	• Not always staffed in practices • Primarily dedicated to acute care • May not see patients independently	• Actively owns patient management • Leveraged for same-day and extended hours access • Sees patients with minimal supervision
RN	• Triages incoming patient calls • Spends majority of time on acute patient ailments	• Prioritizes time for patient follow up • Proactively contacts patients encouraging self-management • Physician, patient can schedule RN for patient education
LPN	• Functions similarly to MA	• Involved in patient education, self-management support • Co-leads group visits • Triages patient phone calls using protocols
MA	• Rooms patients, takes vital signs, assesses reason for visit	• Screens patient needs, reviews chart, labs, goals in pre-visit review • Performs pre-physician services such as foot screening
Front Desk	• Triages incoming patient calls • Conducts reminder calls to patients before scheduled appointments	• Liaises with clinic nurse before appointment to check for outstanding patient needs before reminder calls • Discusses pre-visit testing with patient

Source: Marketing and Planning Leadership Council interviews and analysis.

Elevating Skills for Top-of-License Care

First, practices must ensure that team members have the necessary skills to take on new tasks. Although care tasks may fall within a team member's scope of practice, staff may not have practiced these skills during clinical training or in professional practice. They may also be unfamiliar with the clinic's or physician's preferred protocols.

Kaiser Permanente Northwest audited their primary care staff and identified opportunities to elevate RN, LPN, and MA responsibilities to top-of-license practice.

To support staff in these new roles, Kaiser developed a comprehensive retraining and communication program. LPNs participated in an intensive three-week course to refresh their clinical skills and position them for more extensive patient contact. During the process, RNs served as mentors to LPNs and also received their own training, enabling them to transition their focus from triaging patient phone calls to coordinating chronic care services.

As the care team quarterbacks, physicians may also require education on effective team management and delegation, topics not always covered in medical training. Kaiser is educating physicians on the full capabilities of each level of provider and how staff can be deployed more effectively.

Before	Staff Retraining Program	After
PCP • Assesses and treats simple, complex patients • Provides all patient education • Oversees RNs, LPNs, MAs	• Educated about RN, LPN scope of practice	Develops medical care plan for simple and complex patients, allowing lower-level staff to execute and monitor
RN • Tied up with incoming patient call triage	• Retrained to practice at top of license • Mentor LPNs • Reassured that elevated LPNs will not displace RNs	Uses care plan to assess and treat complex patients, oversees LPNs and MAs
MA LPN • Room patient, perform basic administrative tasks	• LPNs trained for three weeks in nursing clinical skills • Given new job description, new clear responsibilities	Uses care plan to assess and treat simple patients, educates and coaches chronic patients
		Rooms patient, maintains disease registry, performs basic administrative tasks

Kaiser Permanente Northwest

- Kaiser Permanente Northwest region, based in Portland, Oregon
- Conducted study of RN, LPN, and MA scope of practice; learned all of these clinicians are underutilized in primary care practices
- Created extensive retraining programs, rewrote job descriptions to match top-of-license practice

Next-Generation Job Sharing?

Once team members are able to take on additional responsibilities, the next challenge lies in reorganizing tasks among the team. Practice leaders must evaluate the tasks associated with each role to match the highest level of practice permitted by state law or institutional policies. In some cases roles may be broken apart to share tasks among team members, or tasks may be combined into new roles.

Vanderbilt has split health coaching tasks among multiple care team members. Although the role was initially staffed by an RN, practice leaders determined that a medical assistant could assume approximately 25 percent of the responsibilities, including patient phone calls and administrative tasks. The new health coach RN-MA teams work together to provide care, freeing RN time for additional patient care and reducing labor costs.

Dividing the Health Coach Role at Vanderbilt

Initial Health Coach Position

RN

- Patient phone calls
- Patient visits
- EMR messaging, documenting
- Office work
- Supervising MAs

RN Health Coach Activity Log

RN-Level Tasks **72%**   **28%** MA-Level Tasks

Off-loaded work includes patient phone calls, administrative tasks
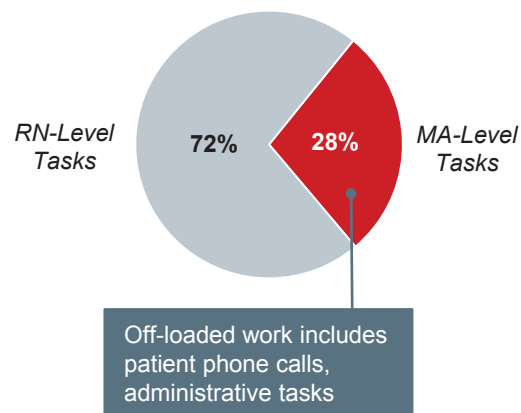
Change in Projected Staff Ratios for RN-MA Health Coach Teams[1]

RN   *MA*

12
8.7
1
3.4

■ Before   ■ After
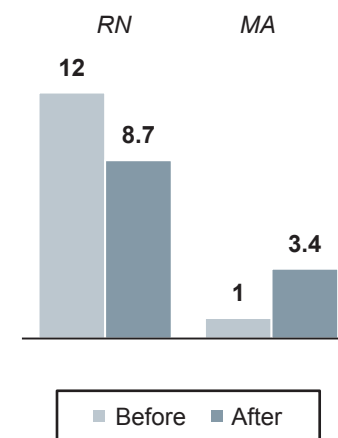
Vanderbilt University Medical Center

- 575-bed facility in Nashville, Tennessee
- Primary care team pilot launched in 2010 with goal of doubling patient panel size and care quality while halving costs for patients suffering from several chronic diseases
- After initial patient stratification, health coaches work with a mixed patient panel, devoting appropriate time and resources to patients in each category

1) Per 10,000 patients.

Incenting Team-Based Care

Shared roles and team-based care require staff to work together more closely. However, in some cases, productivity-based compensation models actively discourage collaboration. At the pseudonymed Tracy Health System[1], the original physician compensation model was fairly simple: multiplying work Relative Value Units (wRVUs) by a conversion rate directly linked to practice cost control, dollars per wRVU. Based on this model, PCPs were understandably reluctant to add care team members to their practices, a step that would increase costs and lower their wRVUs.

Under Tracy's redesigned structure, wRVUs account for 35 percent of base salary calculations, while the remaining 65 percent is tied to overall practice productivity and quality: 35 percent is based on active patient panel size, 15 percent on the profitability of mid-level providers, and 15 percent on nine process and outcomes performance measures that evolve over time. These "scorecard" measures allow Tracy the flexibility to incentivize an evolving range of objectives without rewriting the compensation model with each new care goal.

Clinica Campesina extends productivity and outcomes incentives to all care team members, not just physicians. Under their model, performance bonuses are tied directly to the performance of both the individual's own care team "pod" and the clinic at large. Measures include number of patient visits, care continuity metrics, and chronic disease.

New Compensation Models for Care Teams

Adding Panel Size, Team Performance to PCP Compensation at Tracy Health[1]

2011+(E)

Individual Pod Member Compensation Potential at Clinica Campesina
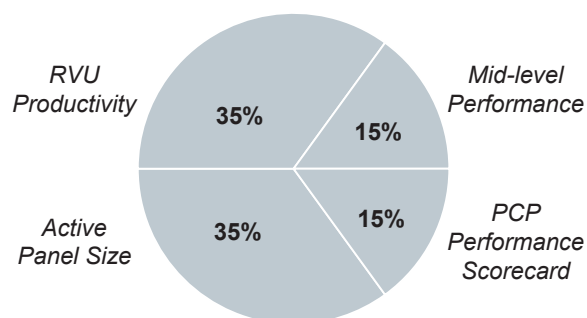
Tracy Health System

- PCPs moved away from compensation based on product of wRVU, practice cost control conversion rate in 2010
- Scorecard metrics include access, hypertension, diabetes management, medical home adoption, new patients, RVUs, expense per RVU, budget target, patient satisfaction
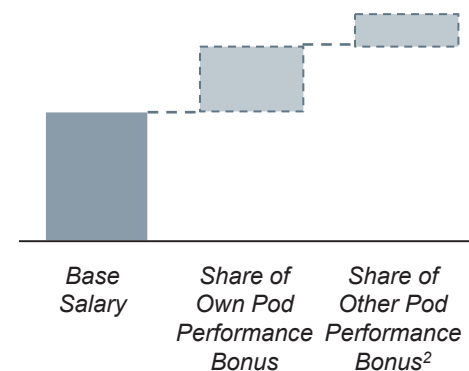
Clinica Campesina

- Care team pods comprised of three providers, three MAs, case manager, social worker, office manager, financial screener
- Pod performance bonus measures include increased number of visits, continuity of care over 80%, chronic disease measures

1) Pseudonym.
2) Achieved even when own pod does not meet targets.

Making the Case for Additional Staff

Adding care team members need not be a costly endeavor. At some practices, care team members have generated sufficient additional revenue to pay for themselves.

At Mercy Clinics, the addition of RN health coaches enabled their 18 primary care practices to increase fee-for-service revenue by improving compliance and documentation, enabling higher-level billing, and increasing clinician productivity. Health coaches have increased delivery of recommended care from 55 percent to 95 percent; these visits also generate additional revenue from labs and other ancillary services.

Health coaches' pre-visit chart reviews and more thorough patient evaluations have also enabled the practice to code diabetes visits at the higher-complexity 99214 level, increasing per-visit revenue approximately 13 percent, or just over $12 per visit. Ultimately, health coaches at Mercy have achieved a 4:1 return on investment and helped to ensure that 85 out of 86 PCPs earned their pay-for-performance bonus in 2007.

Justifying Health Coaches at Mercy Clinics

Components of Health Coach Business Case

- Increased office visit revenue

- Increased lab revenue

- Increased clinician productivity

- Shared medical appointments

- Pay-for-performance capture

Evaluation and Management Levels of Service for Diabetes Patients

Mercy North Clinic (10 Physicians, 1.6 FTE Health Coaches)
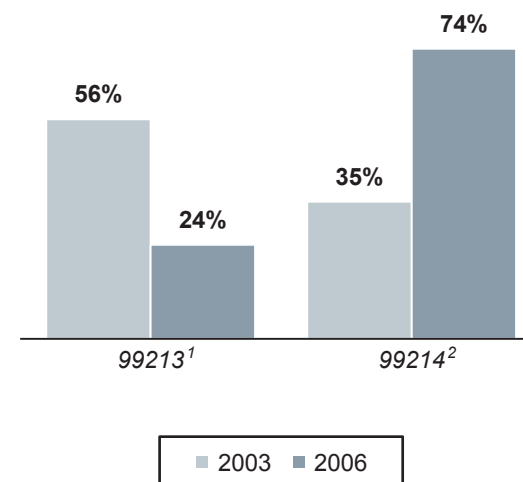
Bar chart showing: 99213[1]: 2003 = 56%, 2006 = 24%. 99214[2]: 2003 = 35%, 2006 = 74%.

Legend: 2003, 2006

Mercy Clinics, Inc.

- 150-physician group, 70% primary care physicians, employed by Mercy Medical Center in Des Moines, Iowa
- Health coach activities improve compliance, documentation for chronic patients, clinician productivity
- Each practice responsible for own profitability, achieved 4:1 return on hiring health coaches
- 85 out of 86 primary care physicians earned pay-for-performance bonus in 2007, totaling over $1 million

1) Low-complexity office visit.
2) Moderate-complexity office visit.

Scaling Up Visits with Groups

While adding care team members can improve the efficiency of traditional individual patient visits, some practices are pursuing further gains by experimenting with group visits.

Group visits expand access by offloading patient education and other visit components to a group session conducted by a care team member. Across the session, patients are pulled out of the group one at a time to meet with a physician or mid-level provider in an adjacent room for brief individual consultations. Group visits are most commonly and effectively used for chronic conditions requiring significant patient education and support, such as diabetes and prenatal visits, although some practices are also using these visits for annual physicals.

Peer support is a key component of success, both for improving patient self-management and fostering patients' willingness to participate in group visits. Patients share self-management, weight loss, and other strategies with each other (while the clinician facilitates the conversation and offers clinical perspective) and may be more receptive to advice from peers. To facilitate relationships and patient comfort within the group setting, practices should strive to maintain consistent group membership and provider assignment to groups. Some practices also encourage group members to select the education topics addressed in the sessions.

Limited Implementation Despite Patient Willingness

Group Visits in Brief
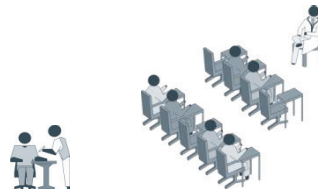
- Visit length typically ranges between 60 to 120 minutes
- Hybrid of group education sessions, individual visits with providers
- Visit efficiency maximized through team-based care; provider present for only 50% to 75% of group visit slot
- Additional non-clinical value for patient in creating social connections
- Billing practices not standardized

Use of Group Visits by Family Physicians

Family Physicians with Group Visits 8.4%

91.6%
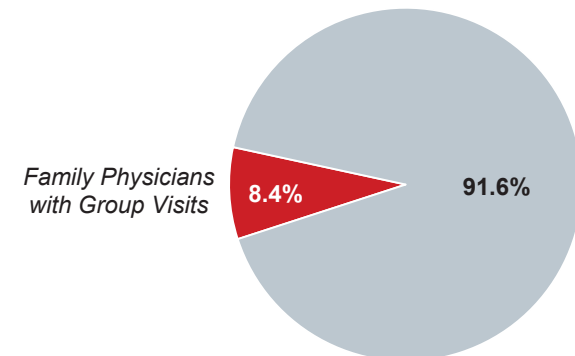
Patient Receptivity to Group Visits
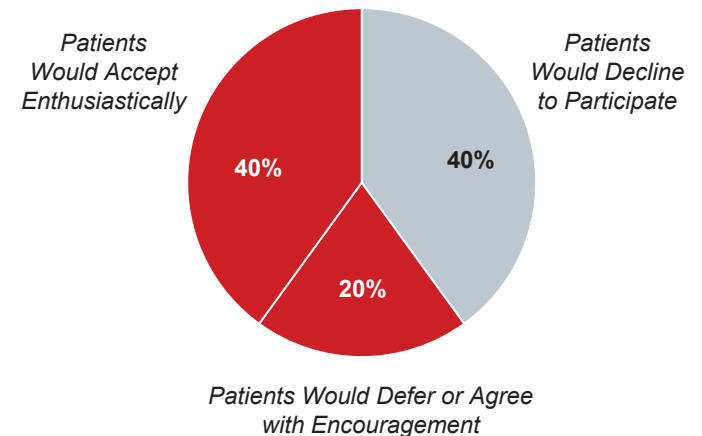
Patients Would Accept Enthusiastically 40%

Patients Would Decline to Participate 40%

Patients Would Defer or Agree with Encouragement 20%

Seeking Quality, Revealing Capacity

Some patients prefer group visits to individual appointments. Clinica Campesina implemented group visits after observing that although some diabetic patients missed their regular appointments, they did attend diabetes group education classes taught by a retired physician.

Clinica Campesina now offers group visits for a variety of conditions including diabetes, chronic pain, and attention deficit hyperactivity disorder (ADHD). Across the two-hour visits, the medical assistant facilitates group discussion on one or more pre-identified content threads relevant to the condition. Meanwhile, the PCP or mid-level provider spends one hour of this time seeing patients during individual consultations. To maintain care continuity, the same provider sees the patient during his or her regular individual visits to the clinic.

Popularity of Patient Education Classes Prompts Group Visit Pilots

Group Visit Types

- Chronic Pain
- ADHD
- Diabetes
- Pre, Neo-Natal
- Anticoagulation
- HPV Vaccination

Diabetes Group Visits

- Two-hour visits occur quarterly
- Eight to ten consistent patient participants
- Visits led by case manager, MA from patients' provider pod[1]
- Consistent PCP, NP, or PA participates for one hour
- 13 "Content Threads" based on standard diabetes education

32% Increase in provider productivity during group visit activity at Pecos Clinic in 2010[2]

85% Group visit patients electing to continue group visits

Clinica Campesina

- Federally Qualified Health Center based in Denver, Colorado serving 35,800 unique patients at four clinics in 2010
- Piloted group visits in 2001 after diabetes patients no-showing for one-on-one visits but continuing enrollment in health education class; currently 1,000 group visits annually
- Facilitated groups built on "Content Threads," allowing clinician and patients to direct conversation jointly
- Group visit typically billed as separate, individual 99213s as provider meets individually with each patient

1) Pods comprise three FTE paneled providers (physicians, nurse practitioners, physician assistants), medical assistants paired with each clinician, case manager, social worker, office manager, financial screener.
2) 4,790 patients seen in 862 group visits, individual visit slots equivalent of 3,625.

Source: Bodenheimer T, "Building Teams in Primary Care: 15 Case Studies," California HealthCare Foundation, July 2007, available at: www.chcf.org/publications, accessed March 22, 2011; Marketing and Planning Leadership Council interviews and analysis.

Group Visits Delivering on Quality

Among group visit patients, Clinica Campesina has observed improved pregnancy outcomes, including lower incidence of c-sections, low birth weight, and pre-term deliveries relative to national and state averages. Group visits have also contributed to a 32 percent increase in provider productivity. In recognition of the individual consultations providers conduct during the group sessions, visits are billed as separate individual 99213 visits.
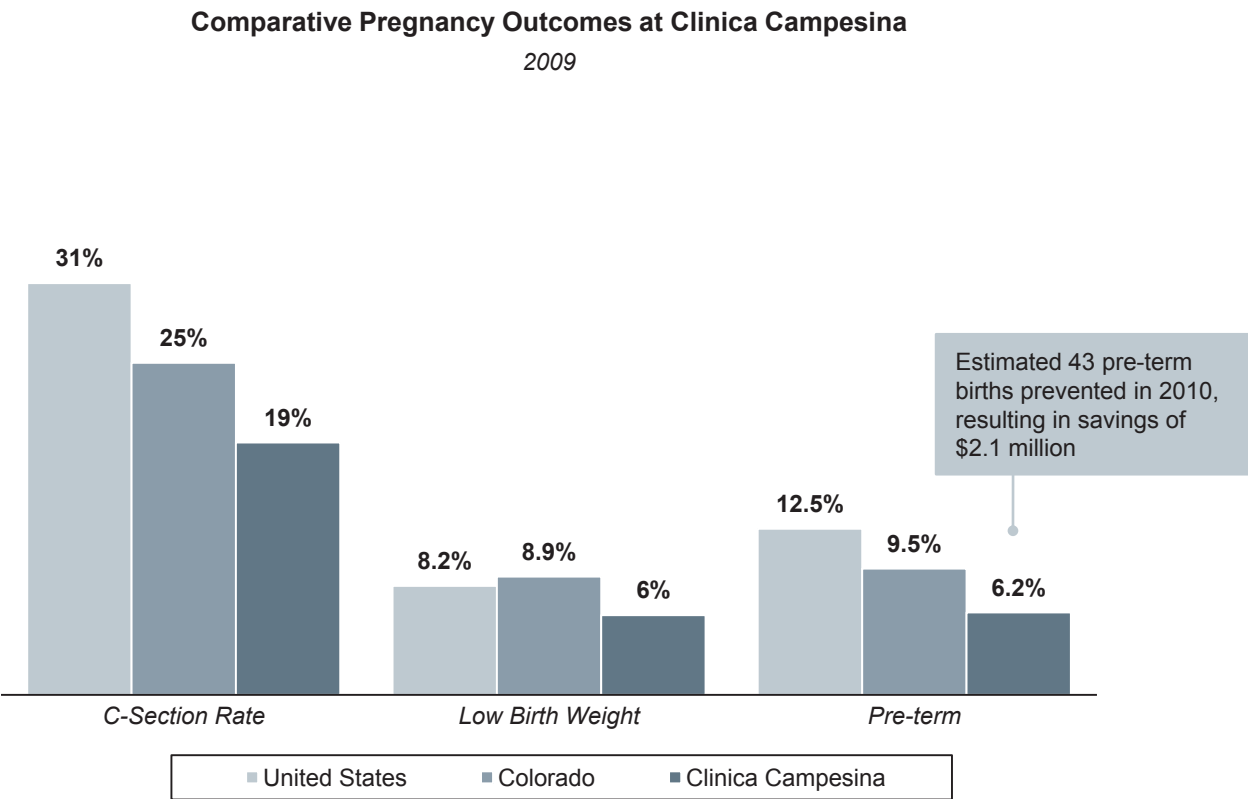
Comparative Pregnancy Outcomes at Clinica Campesina

2009

Estimated 43 pre-term births prevented in 2010, resulting in savings of $2.1 million

	C-Section Rate	Low Birth Weight	Pre-term
United States	31%	8.2%	12.5%
Colorado	25%	8.9%	9.5%
Clinica Campesina	19%	6%	6.2%

Making Ends Meet for Group Visits

Mercy Clinics has built a strong business case for group visits. Mid-level providers conduct individual exams with each patient either prior to or during the group session, enabling the practices to bill full visit codes for all participating patients. Patient engagement in group visits can also reduce no-shows and allow the practice to provide guideline-recommended testing and other ancillary services.

Crafting a Group Visit Business Case at Mercy Clinics

Group Visit Billing

Improved Financial Performance[1]

• E&M Level 3	$108
• Glucose Test	$15
• Labs	$20
Total per Patient	**$143**
Number of Patients	*x10*
Total	**$1,430**

Billing based solely on mid-level provider individual visit coding

Improved Patient Satisfaction

• Answers to questions patients might not have thought of, group learning for lifestyle changes

• Strengthens relationship with practice and care team

Improved Staff Satisfaction

• Reduces repetition of basic diabetes education information

• Better patient engagement

Mercy Clinics, Inc.

• 150-physician group, 70% primary care physicians, employed by Mercy Medical Center in Des Moines, Iowa

• Clinics use two models of group visits, alternating order of 45-minute interactive education session facilitated by health coach or group discussion, mid-level provider conducting brief individual examinations or during group discussion

1) Representative.

Practice Redesign Improves PCP Efficiency, Satisfaction

Across both individual and group visits, numerous opportunities exist to streamline care processes for efficiency and access gains. As practices add care team members, practices have both a natural opportunity and an increased need to ensure that teams are operating in concert. Progressive organizations are experimenting with process improvement methodologies and embedding part-time process coaches in practices.

To improve provider efficiency and work-life balance, North Shore Physicians Group has implemented the Virginia Mason Production System in some practices. This practice model, developed by Virginia Mason Medical Center and based on Toyota LEAN methodology, emphasizes continuous improvement and team-based care.

To build clinician support, North Shore recruited dedicated nurse and physician leadership. The physician leader has devoted half of his time to coaching his colleagues on efficient use of the practice's EMR.

Medical assistants play a key role in the new model—prepping physicians for patient visits, keeping them on schedule, and following up on patient requests. To prepare medical assistants for this new role and to standardize skills across the MA corps, the practice developed a medical assistant training program. The training has improved physicians' comfort and willingness to delegate tasks and work with all MAs, rather than only specific, familiar individuals.

Standardized, Team-Based Model Relieves PCP Pressure

Elements of Practice Redesign

Dedicated Champions	**Physician-led IT Support**	**Standard MA Skill Set**	**Expanded MA Role**
• Physician and RN recruited to lead PI efforts, redesign care model to improve access	• Medical director of clinical information systems recruited to assist PCPs in using EMR efficiently	• MA training on core competencies builds PCP trust, increases delegation • MA Council developed	• Keep PCP on task and on schedule • Tee up likely patient concerns • Follow up on results

North Shore Physicians Group

• Multispecialty, 16-practice group of over 200 physicians based in Salem, Massachusetts

• Sought to improve practice productivity and physician work-life balance to enhance access, recruit, and retain primary care physicians

• Implementing Virginia Mason Production System among interested practices

Source: Marketing and Planning Leadership Council interviews and analysis.

Leadership Rounding Uncovers New Opportunities

To sustain improvements beyond initial efforts, North Shore's administrative leadership rounds monthly on all practices, whether or not they are implementing the Virginia Mason model. During these visits, administrators interview three to four staff and clinicians per site to uncover challenges and improvement opportunities. Findings are reviewed by members of North Shore's senior leadership team and quality council, who identify common challenges across practices and facilitate best practice sharing.

As a result of these efforts, North Shore has been able to hire 29 new primary care physicians by promoting the practice's support for work-life balance and clinician-led approach to efficiency improvement.

Systematic Process Ensures Follow-Through

Monthly Leadership Practice Rounding

- Medical group administrative leadership round monthly on clinicians, staff at all 16 practice sites
- Leaders meet with three to four individuals per site to solicit feedback on operational challenges, opportunities to enhance patient experience

- Comments documented, reported back to senior team
- Individual practices supported in improvement efforts
- Systemic issues referred to multidisciplinary quality council for attention

95th

National AMGA percentile rank for provider satisfaction

Giving Physicians Back Their Lives

"We have doctors who used to take four hours of paperwork home every night who are now leaving at 6:30 p.m. without taking anything home."

Dr. Maury McGough
Primary Care Medical Director
North Shore Physicians Group

Source: Marketing and Planning Leadership Council interviews and analysis.

Out-of-Industry Coaches Guide Improvements

Pseudonymed Boal Health System tailors process improvement efforts to the needs of individual practices. The system recruits volunteer process improvement experts to work with physician practices on-site for one to three hours per week. This approach enables practices to focus their efforts on specific needs—throughput, communications, waiting times—and adopt changes at their own pace. It also gives the physicians and practice managers ownership over the process.

Tailoring PI to Practice Individuality at Boal[1]

Matching Quality Coaches to Individual Practices

Quality coaches identify PI opportunities in individual practices, recognizing changes may not fit all practices

Driven by Physician, Practice PI Ownership

PI gains broad support by allowing physicians, practice managers ownership over process, results

10

Average minutes saved for patient door-to-door per visit at one internal medicine practice

Boal Health System[1]

- Small health system with 35-50 primary care physician practices
- Planned Care Coordinator seeks volunteer process improvement experts (primarily LEAN/Six Sigma Green, Black Belts) from local industry to serve as "Quality Coaches" for physician practices; practices include internal medicine, family medicine, pulmonology, independent PCP
- Quality Coaches spend one to three hours in practice per week seeking to assess, improve communications, throughput, customer experience; coaches share learnings in monthly forum
- Practice leadership and coaches share progress quarterly

1) Pseudonym.

Outgrowing Our Homes

Care process changes will inevitably affect the way staff and patients use facility spaces. For example, private exam rooms do not accommodate group visits, and care teams require greater physical proximity and enhanced sightlines to facilitate communication. Leading organizations are redesigning primary care facility spaces to support care process transformation.

New Care Processes Incompatible with Existing Facility Design

Care Teams Altering Work, Communication Processes

- Changes in responsibilities of care team members create new or different steps in care process, may add redundant way-finding
- Line-of-sight between clinicians, administrators disrupted by changes in care process
- Care teams may be too large a group to fit together in traditional exam rooms for meetings with individual patients

New Visit Types Unfit for Traditional Exam Rooms
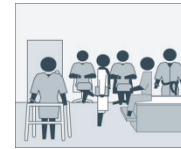
- Group visits require spaces capable of holding eight to twenty patients
- Providers without private office require privacy for online consultations

Changing Needs for Dedicated Space

- Additional IT infrastructure requiring more space, location considerations
- Providers spending less time in private offices

Source: Marketing and Planning Leadership Council interviews and analysis.

Travel Time Study Highlights Inefficiencies

Following implementation of care teams, health coaches, group visits, and other care process changes, leaders at Clinica Campesina recognized that the existing facility layout no longer met patients' and providers' needs. The clinic partnered with a local architecture firm to evaluate their use of clinic space; using pedometers to monitor clinician movements, the firm found that providers wasted thousands of steps and dozens of minutes each day moving between team members—the equivalent of several appointment slots.

Configuration Wasting Precious Minutes, Impeding Coordination

Tracking Providers Across Their Day
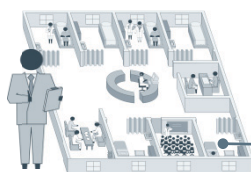
Identified Staff Time Wasted

- Looking for one another
- Using distant photocopier
- Walking to desks between patients

- Architecture firm used pedometer to measure staff walking times
- Results used to inform new facility design

Facility Redesign Goals

- Improve productivity
- Treat additional patients
- Enable staff to more easily locate one another
- Increase patient comfort in facility

Clinica Campesina

- Federally-Qualified Health Center based in Denver, Colorado serving 35,800 patients at four clinics in 2010
- Engaged Boulder Associates architecture firm in facility redesign effort to improve coordination and efficiency

Reducing Waste, Opening Access

Practice leaders worked with architects to redesign clinic floorplans. The new layout for the one practice, the People's Clinic, features a large group visit space that can be divided into smaller rooms. Clinician workstations are arranged in pods of cubicles that serve as hubs to exam rooms along the perimeter. Each care team shares a pod and works in the nearby exam rooms, enabling frequent, fast communication. Ultimately, these changes, combined with other care process improvements, have enabled Clinica Campesina to increase the number of patients each provider sees from 15 to 17 per day.

Redesigned Facility Enables Providers to Treat More Patients
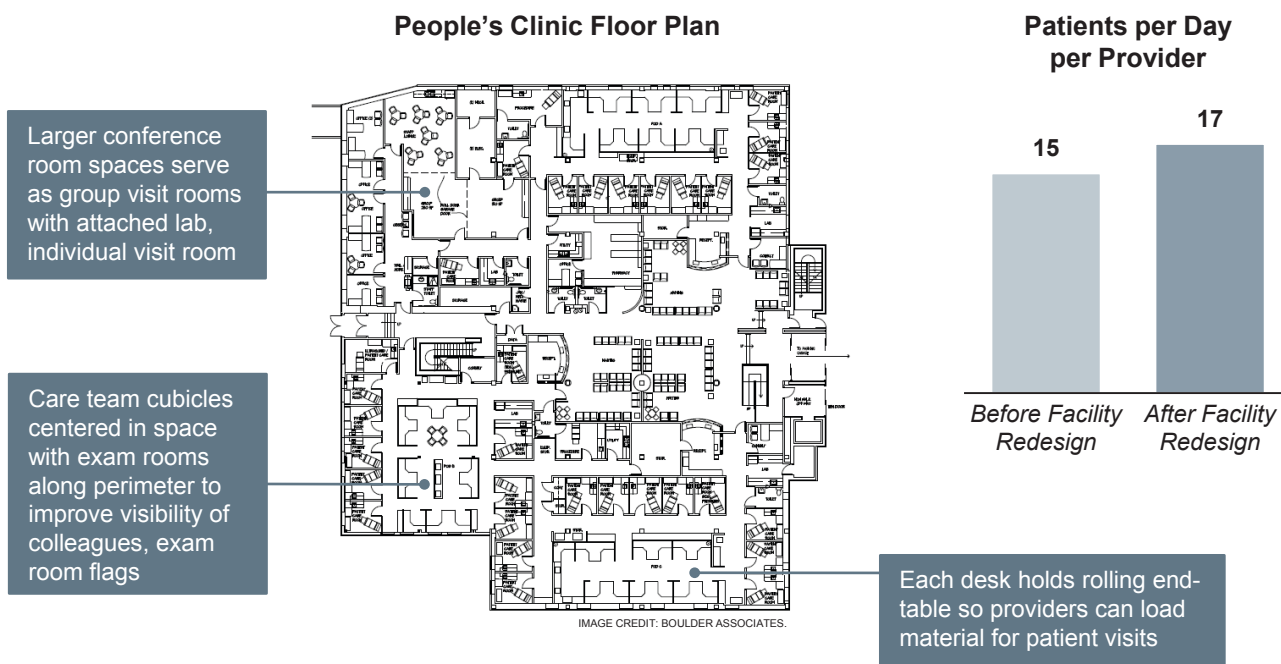
People's Clinic Floor Plan

Larger conference room spaces serve as group visit rooms with attached lab, individual visit room

Care team cubicles centered in space with exam rooms along perimeter to improve visibility of colleagues, exam room flags

IMAGE CREDIT: BOULDER ASSOCIATES.

Each desk holds rolling end-table so providers can load material for patient visits

Patients per Day per Provider

Before Facility Redesign	After Facility Redesign
15	17

Building a Home for the Primary Care 80/20

Kaiser Permanente has also re-envisioned its facilities by developing small walk-in primary care clinics to supplement services offered in traditional large medical office complexes. Termed "micro-clinics," the practices are staffed by two to three physician and mid-level providers and offer approximately 80 percent of the services available at a typical primary care office. The 1,800-square-foot core model features four exam rooms, a waiting room, and a clean utility room; optional add-on pharmacy, lab, basic imaging, and consult rooms can expand the footprint up to 5,000 total square feet.

Micro-Clinic Model Envisions Delivery in Downsized Setting

Service Scope

- Adult primary care
- Allergy shots
- Episodic care: ear infection, cold, flu, muscle strain
- Family practice with peds component, routine OB/GYN
- General health screenings
- Immunizations

- Vision testing
- Limited lab testing, specimen collection
- Biometric screening
- Flu shots
- Asthma treatment
- Patient holding/observation
- Rehydration

Delivery Model

On-Site Providers
Two to three providers (mix of MDs, NPs, or PAs) plus receptionist

Clinic Space
Four exam rooms, waiting room, clean utility room

Limited Ancillary Services
No imaging, pharmacy, lab, consult (optional add-ons)

Kaiser Permanente Micro-Clinics

- Small family practice offering 80% of services available at typical primary care office
- ≈1,800 SF core model; optional add-on pharmacy, lab, basic imaging, and consult room expand clinic up to 5,000 SF total
- Micro-clinics handle 80% of primary care services

Source: Marketing and Planning Leadership Council interviews and analysis.

Scenario Testing Informs Team-Based Design

To develop the new model—a significant departure from Kaiser's typical one-stop outpatient facility—Kaiser's construction crew mocked up a variety of different floorplans. Providers, staff, and patients then enacted mock patient care situations to test each design, evaluating communication, wheelchair accessibility, and privacy. Following each mock scenario, participants offered feedback, which the construction crew used to modify the layout before retesting. The rigorous evaluation helped planners to identify optimal placement of the nursing station for team communication and to relocate the weight and blood pressure stations to increase patient privacy.

Resulting Model Improves Coordination, Patient Privacy

Clinic Design Testing Process

Design also incorporates findings from two-year Total Health Environment research initiative

1

Prospective Micro-Clinic layout mocked up by construction crew

2

Clinicians, staff, and patients test patient care and scenarios, offer feedback

3

Construction crew reconfigures layout during lunch; new model scenario-tested

Design Session Findings

- Centralized nurses' station to facilitate interaction with patients and care team
- Relocated weigh-in, blood pressure stations away from waiting room line of sight to improve privacy
- Developed multiple models for provider offices, one featuring a sliding glass door; culture of each clinic determines model selected

Source: Marketing and Planning Leadership Council interviews and analysis.

Coming to a Storefront Near You

The Micro-Clinic model's standardized template and streamlined design also enable faster, less expensive market entry than a more traditional medical office building model. To date, Kaiser has implemented the Micro-Clinic model developed through the testing process in 13 clinics.

Facility Design Enables Quick, Low-Cost Launch

IMAGE CREDIT: KAISER PERMANENTE.

Months to Open

- Kaiser MOB: 25
- Micro-Clinic: 5

Build-Out Costs

- Kaiser MOB: $13.8 M
- Micro-Clinic: $750 K
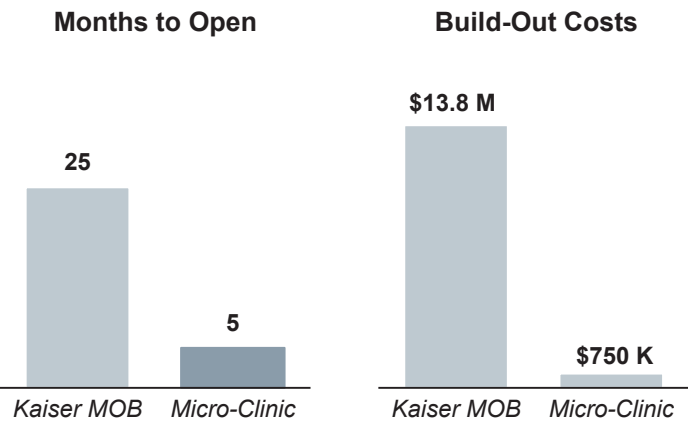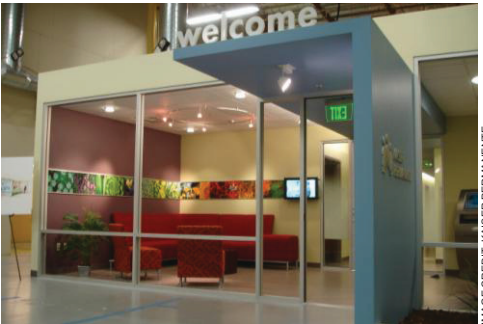
> **"**
>
> **Surprising Results**
>
> "I was honestly a little skeptical about what we would get out of this process. This is such a simple design—how different could it be? The fact of the matter is that the clinic design is entirely different than where we started."
>
> *Michele Flanagin*
> *VP, Delivery System Strategy*
> *Kaiser Permanente*

Source: Marketing and Planning Leadership Council interviews and analysis.

Facility Design Considerations for New Care Processes

Practice leaders must evaluate a variety of considerations when redesigning facility spaces, including the demands of team-based care, new visit types, and the need for IT infrastructure. Layout changes may raise staff concerns, particularly if clinicians' private offices are affected or removed entirely. Early involvement of stakeholders is essential to mitigating tensions and selling staff on the benefits of facility redesign for both patients and providers alike.

Key Design Elements Supporting Access Expansion

		Description	Considerations
Team-Based Care	"Hub" Exam Room Structure	Exam rooms dedicated to single team of providers located in same location	Assess care process stages to maximize throughput between pre-visit, visit, post-visit
	Cubicle Bullpen	Care team clinician desks clustered together in center of larger room	Centrally located care team enables faster team communication; centralization may increase noise levels; optimally located close to hub of exam rooms to reduce wasted movement; team may conduct huddles in bullpen area; line-of-sight with reception area can positively inflect throughput
New Visit Types	"Big Room"	Larger room can be used for group visits, conferences, education opportunities, care team huddles	Potential for splitting when not used for groups; consider close or co-location of private exam rooms for individual attention during group visits
	Virtual Health Rooms	Room dedicated to live, synchronous e-visits through webcam	Smaller, quiet room required
	Talking Rooms	Space dedicated to longer, more personable conversations with patients	Space may reduce patient anxiety of being in clinical setting, increase comfort with clinical discussions
Dedicated Spaces	Private Office Reassessment	Private offices may be used less or not at all in new care processes	Physicians may resist losing own office space; new-grad providers may be more willing; some physicians willing to trade private office for talking rooms
	Emphasized Role of IT	Larger role of computing in delivering care may require larger computing hardware footprint	IT may require own server room; integrated EMR reduces need for file room; potential to remove room altogether with cloud computing structure

Source: Marketing and Planning Leadership Council interviews and analysis.

Key Takeaways for Elevating Practice Productivity

1 **Migrate Toward Ideal Practice Size**

Hospital-owned primary care practices are disproportionately undersized to take advantage of scale efficiencies. Newly acquired practices may be better suited for expansion, depending on market opportunity, although organizations should exhibit caution in growing individual practices too large, lest group conflict overwhelm practice efficiency.

2 **Strengthen Care Teams**

Physicians are often unable to deliver all necessary care for existing patient panels. Care teams operating at top-of-license can offload lower-level tasks from physicians and take on additional tasks to care for an increasingly elderly, sick population.

3 **Implement Group Visits for Targeted Populations**

Group visits offer the opportunity to deliver patient education and other visit components in a group setting while maintaining individual consultations. These visits are increasingly popular with patients, particularly those with chronic conditions, who value the peer support opportunity provided.

4 **Deploy System Resources for Practice Efficiency Improvements**

Health systems and their associated physician groups are well-positioned to support practices in efficiency improvements by assessing individual practice operations and suggesting improvements. Physicians and care team members must be engaged throughout the process and efficiency gains must be carefully allocated both to free time for new visits and to improve providers' work-life balance.

5 **Design Facility Space for Next-Generation Care Processes**

Legacy facility spaces are designed for one-on-one, in-office patient encounters with primary care physicians and may be unsuited to new care processes or visit types. Before implementing care process changes, practices must consider how facility design will facilitate or impede team member communication, implementation of group visits, and IT adoption.

Leveraging the Coordinated Network

Priority #2: Leveraging the Coordinated Network

PCP practices alone will not be able to meet an overwhelming demand for ambulatory care. A significant amount of primary care demand can be offloaded to alternative care sites, potentially freeing up additional PCP capacity. As a result, hospitals and health systems will need to not only evaluate new facilities such as urgent care, retail clinics, and worksite clinics that operate in parallel to the primary care network, but also adopt practices to ensure effective coordination with these primary care sites.

Current Assets Not Primed for Growth, Coordination

Primary Care Physician Practice

- Small practice sizes limit efficient sharing of support resources
- Facilities designed for one-patient, one-provider, in-person visits

Urgent Care Center
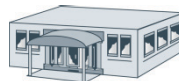
- Stand-alone centers miss opportunity to connect patients to PCP network
- Patients uncertain when to access; some use for routine concerns

Convenient Care Clinic

- Services limited to episodic care
- Little EMR or referral connectivity with PCP offices
- Facing resistance from PCPs anxious about volumes threat

Worksite Clinic

- Services traditionally limited to occupational health services
- Little EMR or referral connectivity with PCP offices

Source: Marketing and Planning Leadership Council interviews and analysis.

Payers Increasingly Motivated to Lift the Veil

One of the first factors in choosing a primary care office site is location. Although the traditional rule of thumb has been a practice within 10 minutes of every home, this estimate lacks market-specific nuance and may be less relevant in some areas where busy working families prioritize hours of operation over geographic proximity.

Pseudonymed Visser Health has begun conversations with a local insurer to share utilization data to better target placement of care sites and services. By strategically locating primary care services in areas of high chronic disease incidence, the system hopes to capture additional market share and test new care models in preparation for accountable payment structures. The payer hopes to reduce overall care costs by improving care management and reducing unnecessary ED utilization.

Finding Payers Eager Planning Partners at Visser Health[1]

Some Payers Exploring New Roles

Local payer explores potential new functions, engages health system in data partnership discussions

Identifying a Mutually Beneficial Partnership

Shared utilization data enables system to target preventive services to high-utilizers, reduce insurer's costs, begin broader partnership

"

Changing Business Model for Insurers?

"If you're a health plan, you either become a care delivery system or an information services company. The traditional business is dead."

David Brailer
Chairman, Health Evolution Partners

Visser Health[1]

- Medium-sized health system based in the Midwest
- Health system seeks utilization data to optimize primary care utilization, prepare for coverage expansion
- Local payer seeking partnership opportunities with health system in bid to redefine role

Source: Weaver, Christopher, "Health insurers respond to overhaul law by acquiring less-regulated lines of business", available at: www.washingtonpost.com/business/health-insurers-respond-to-overhaul-law-by-acquiring-less-regulated-lines-of-business/2011/03/17/AB8sAkx_story.html?hpid=z11, accessed March 20, 2011; Marketing and Planning Leadership Council interviews and analysis.

1) Pseudonym.

Incorporating Consumer Preferences in Planning

Patients are another key source of information for care site planning. Increasingly, progressive health systems are conducting patient surveys and focus groups to assess consumers' care preferences and needs, willingness to travel, desired hours of operation, and comfort with alternative care sites like retail clinics.

Pseudonymed Visser Health has conducted extensive market research with patients in the system's medical home pilot projects to assess their satisfaction with pilot initiatives and incorporate feedback into planning for future sites. Similarly, pseudonymed Taron Health System employs regular phone surveys and online panels to evaluate the impact of trends like rising transportation costs on consumers' care site preferences.

Cook Children's Health Care System uses its family and adolescent advisory councils to uncover new insights about patient behavior. For example, system leaders were perplexed to find that establishing new primary care clinics did not reduce unnecessary ED utilization by local residents. Conversations with their advisory councils revealed that the major barrier to primary care clinic access was not distance but hours of operation: working parents could drive to the ED, regardless of location, but could not afford to miss work for daytime clinic appointments. Cook Children's is now working to offer evening and weekend appointments at their clinics.

Patient Feedback Informs Types, Locations of Primary Care Sites

	Patient Feedback Solicitation Method	Ambulatory Strategy Impact
Taron Health System[1]	**Service Area Consumer Insights Polls** Annual telephone surveys, monthly online web panel of consumers uncover differences in county-level market preferences	**New PCP Practice Siting** Planning considers local consumers' willingness to travel for health services, impact of rising transportation costs on travel patterns
Visser Health[1]	**Patient Satisfaction Pulse Checks** Interviews, surveys, community focus groups of medical home pilot patients identify patient satisfaction progress	**Care Model Redesign** Patient preferences incorporated into medical home design, ensuring patient-centered focus
Cook Children's Health Care System	**Health System Advisory Councils** Family, adolescent advisory councils uncover patient, family concerns with care delivery, operations	**Clinic Hours of Operation** Council feedback reveals that parents define access by hours of operation, not location; neighborhood clinics begin adding after-hours, weekend hours care

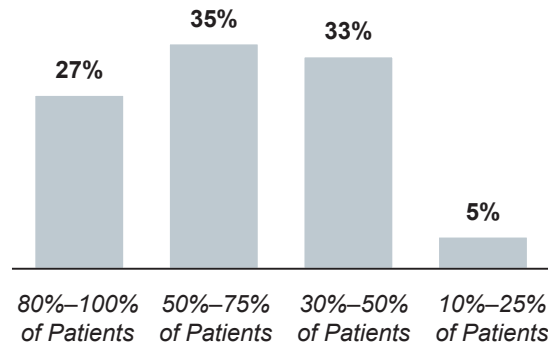1) Pseudonym.

Taking Advantage of Access Constraints

In determining the best locations for primary care practices and other ambulatory network components, planners must also consider whether practices should serve as stand-alone outposts or be housed with other services. Operating practices as stand-alone sites enables a system to maximize its geographic reach. However, co-locating practices with EDs, urgent care centers, or retail clinics offers an opportunity to connect these "casual" users of primary care services with a regular PCP, thereby improving downstream referral capture.

Research indicates that a provider's referral is the second most influential factor in patients' PCP selection. Given the high percentage of urgent care patients who do not have a usual source of care—at least 20% in over three quarters of urgent care centers—providers at "alternative" primary care sites have a unique opportunity to connect patients with an affiliated PCP.

Many UCC Patients Lack PCPs, Open to Referrals

Percent of Urgent Care Centers by Percent of Patients with Alternate USC[1]

n=830

Category	Value
80%–100% of Patients	27%
50%–75% of Patients	35%
30%–50% of Patients	33%
10%–25% of Patients	5%

Information Source Used to Select a Primary Care Provider[2]

n=13,500

Category	Value
Friend or Relative	50.3%
Doctor or Other Health Care Provider	38.1%
Health Plan	34.7%
Internet	10.8%
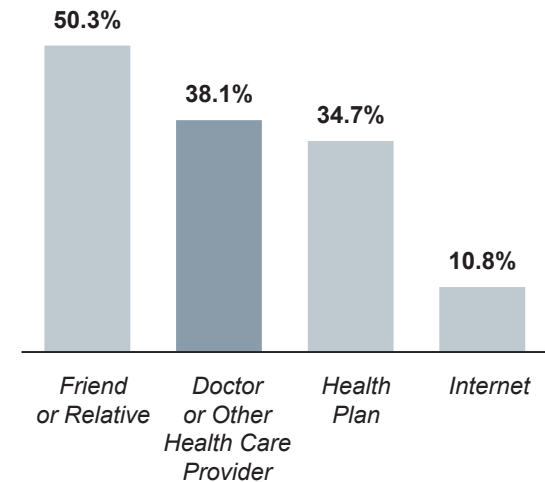
1) Usual source of care.
2) Respondents could select more than one response.

Growing Symbiotically with Urgent Care Centers

To take advantage of this opportunity, Prevea Health has co-located primary care practices with urgent care centers. Patients who lack a usual source of care are invited for a follow-up visit at the PCP office, which is integrated with the UCC's EMR. The practice's new PCPs also work one day per week in the urgent care center until their patient panels are full, enabling them to establish connections with potential patients. Within several months of implementing this strategy, the practice's patient volumes per provider doubled, with over a quarter of new urgent care patients attending a follow-up visit.

Co-Locating PCP Practices with UCCs at Prevea

Attracting a Steady Flow of Patients Through UCC

PCP practice co-located at urgent care center to rapidly boost volumes with walk-ins, follow-ups

Offsetting Costs Through Shared Staff

PCPs work one day per week at UCC until patient panel volume is sufficient to sustain practice; PCPs begin relationship with patients for follow-up visit at practice

100% Increase in patients per day per provider since co-location[1]

26% Percent of new UCC patients who followed up with PCP

Prevea Health

- 200+ provider multispecialty group based in Green Bay, Wisconsin
- PCP family practice sited in new, competitive market averaging only five patients per day after over 12 months of operation
- Group builds urgent care center with radiology, lab, therapy in-clinic to boost volumes with walk-ins, follow-ups
- Urgent care center EMR integrated with all PCP practices, ensuring easy follow-up

1) Data for January 2010 – February 2011. Co-location occurred in November 2010. Single provider averaging five patients per day through December. Second provider added in January 2011, jointly averaging 20 patients per day.

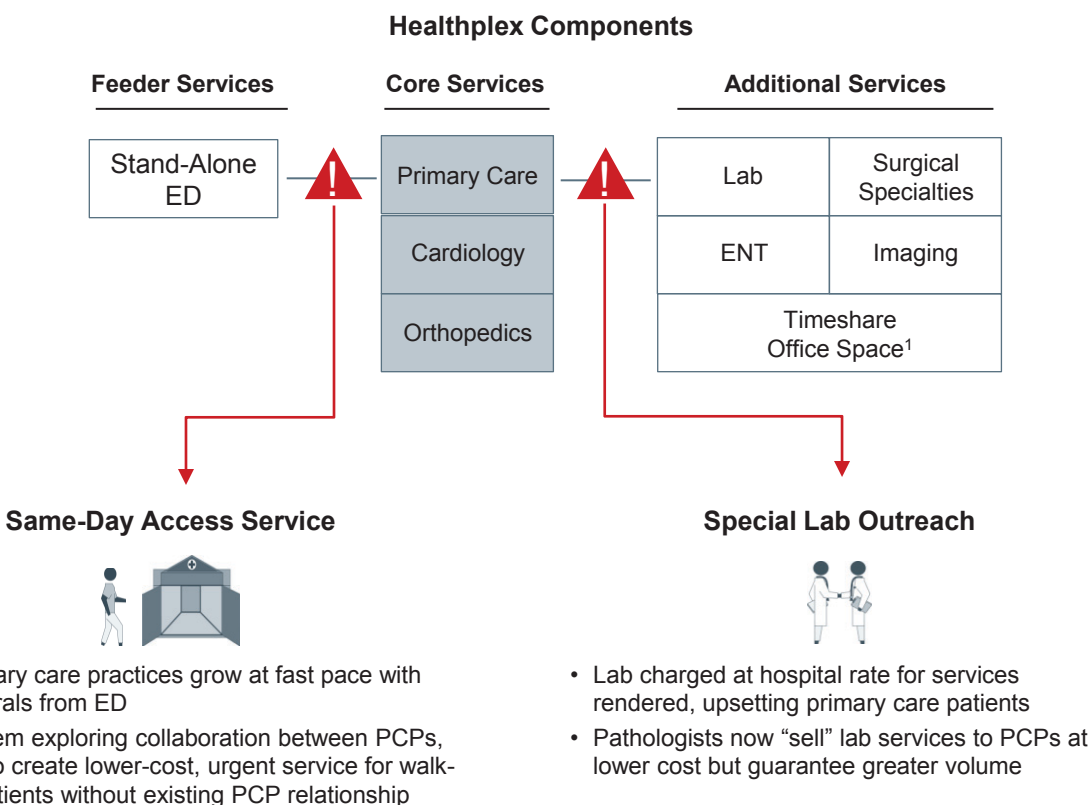Source: Marketing and Planning Leadership Council interviews and analysis.

Identifying Coordination Flashpoints at Healthplexes

Co-locating practices with other services must be managed carefully, as leaders at Raleigh-based WakeMed learned when establishing a primary care practice in a large outpatient healthplex.

WakeMed's two healthplexes each feature a stand-alone ED, specialist offices, and ancillary services including imaging and lab. Recognizing that many patients were seeking primary care services in the ED, system leaders established an on-site primary care practice to capture those volumes and follow-up appointments from ED visits. However, traditional PCP practices are unable to offer many same-day or walk-in appointments—the key feature that attracts patients (particularly those without a regular provider) to the ED in the first place. To improve "on-demand" availability within the more cost efficient practice setting, WakeMed's ED staff and practice staff are collaborating to offer urgent primary care visits.

The system has also worked to modify billing practices for labs performed as part of primary care visits. Initially, the healthplex's lab billed for these services at traditional hospital rates, which were not always covered by insurers. In response to patient complaints and concerns that patients would seek lab work and eventually physician care from competitors, WakeMed's pathologists have reduced charges for patients seen in the practice setting.

Finding Hidden Barriers to Growth at WakeMed

Healthplex Components

Feeder Services	Core Services	Additional Services	
Stand-Alone ED	Primary Care	Lab	Surgical Specialties
	Cardiology	ENT	Imaging
	Orthopedics	Timeshare Office Space[1]	

Same-Day Access Service

- Primary care practices grow at fast pace with referrals from ED
- System exploring collaboration between PCPs, ED to create lower-cost, urgent service for walk-in patients without existing PCP relationship

Special Lab Outreach

- Lab charged at hospital rate for services rendered, upsetting primary care patients
- Pathologists now "sell" lab services to PCPs at lower cost but guarantee greater volume

WakeMed

- 870-bed not-for-profit health system based in Raleigh, North Carolina
- System opened healthplex ED in 2005; found core services financially sustainable through constant flow of patients from ED
- PCPs face overlapping services with ED, lab; collaborate to eliminate unnecessary overlap

1) Typically 1,500 square feet with three exam rooms leased by the half-day. Space leased to physicians seeking to test new markets or lacking capital for full investment.

Source: Marketing and Planning Leadership interviews and analysis.

Co-location Implementation Considerations

When identifying primary care services suitable for co-location, systems must assess a variety of factors, including whether patients perceive the site as a desirable location for additional services, opportunities and challenges associated with potential staffing and service overlaps, and feasibility of EMR and scheduling system integration.

Systems seeking to use alternative care sites as feeders for co-located practices must also prepare for practice relocation once providers' panels fill, if the system wishes to reuse that site to assist additional providers in practice growth.

Considerations for Co-Locating Primary Care Physicians with Urgent Care, ED

✔	Assess opportunity by tracking patient data on reasons for seeking care at site of care other than PCP office
✔	Determine potential overlaps in primary care services; consider patients' and physicians' perspectives
✔	Consider opportunity to offset practice costs by sharing staff with urgent care, ED; PCPs with experience in emergency care best-suited; sharing staff most efficient when done in half-day, full-day blocks
✔	Minimize referral barriers through linking or integrating scheduling systems, tightening referral operations, facilitating relationship-building among all physicians at location
✔	Integrating EMR serves not only to increase continuity of care but also to act as a marketing mechanism by reducing patient burden and facilitating primary care follow-up
✔	Anticipate co-located PCPs outgrowing need for constant urgent care or ED referrals; consider plans for nearby relocation, replacing co-located office space with new PCP seeking to grow practice

Source: Marketing and Planning Leadership Council interviews and analysis.
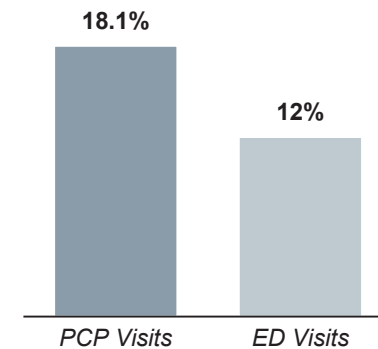
Sizing the Opportunity

Retail clinics represent another key element of the primary care network. The role of retail clinics in the primary care network continues to evolve. Currently, 90 percent of retail clinic visits are for the same 10 minor clinical issues, which represent just over 18 percent of PCP visits. Off-loading these visits to the retail setting could free two to four appointment slots per day per FTE provider.

Nearly 20% of PCP Visits Within Current Scope of Retail Practice

Clinical Issues Comprising 90% of Retail Visits[1]

- Upper respiratory infection
- Sinusitis
- Bronchitis
- Pharyngitis
- Otitis media
- Otitis externa
- Conjunctivitis
- Urinary tract infection
- Screening lab/blood pressure test
- Immunizations

Percentage of Visits Attributable to Same 10 Low-Acuity Clinical Issues

n=483.47 M; 112.4 M

18.1% — PCP Visits

12% — ED Visits

Source: Mehrotra, et al., "A Comparison of Patient Visits to Retail Clinics, Primary Care Physicians, and Emergency Departments," available at: www.ncbi.nlm.nih.gov/pmc/articles/PMC2730172/, accessed on March 26, 2011; Marketing and Planning Leadership Council interviews and analysis.

1) n = 1.35 million.
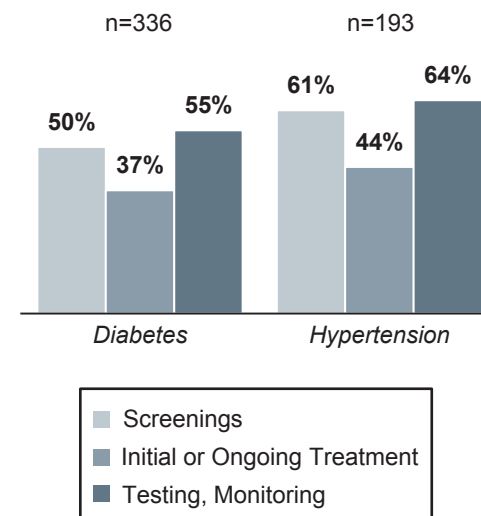
Expanding from Episodic to Chronic Care

Retail clinics are also expanding their scope of services beyond these minor clinical issues: for example, MinuteClinic plans to provide chronic care monitoring, education, and lab services. Evidence suggests that patients are becoming more open to seeking care for their chronic conditions in retail settings.

Monitoring Made Easy™ Services[1]

- Chronic health condition monitoring for diabetes, asthma, high blood pressure, high cholesterol
- Educational support for newly diagnosed chronic disease patients
- Lab tests including HbA1c, lipid profile, microalbumin, breathing/oxygen level

Patient-Reported Comfort with Chronic Care Services in Retail Clinic Setting

n=336   n=193

Diabetes: Screenings 50%, Initial or Ongoing Treatment 37%, Testing, Monitoring 55%

Hypertension: Screenings 61%, Initial or Ongoing Treatment 44%, Testing, Monitoring 64%

- Screenings
- Initial or Ongoing Treatment
- Testing, Monitoring

Compete or Collaborate?

"We must partner with retail clinics before they capture the market of lower-acuity, easier-to-manage diabetic patients. We should really be on the same team, especially in the emerging ACO world."

Primary Care Physician
Physician Practice in the Northeast

1) In certain states.

Off-loading Hours, Chronic Care Visits to Retail Clinics

Catholic Healthcare West (CHW) has partnered with 10 MinuteClinics in Phoenix, Arizona, to provide evening and weekend primary care services. CHW's PCPs educate their patients about the after-hours services available through the co-branded MinuteClinics, which in turn refer retail patients lacking a usual source of care to CHW PCPs for follow-up.

CHW and MinuteClinic plan to extend the partnership by positioning MinuteClinics as extensions of the primary care team. Under the proposal, the retail clinics will accept referrals for low-acuity care (even during normal practice office hours) and will also offer chronic care monitoring services. CHW's PCPs will provide medical oversight to ensure quality and care continuity. The two organizations are also exploring the development of shared care protocols between MinuteClinic and CHW's urgent care centers to provide an alternative access point and ensure patients are referred to the most appropriate care site.

Staging Retail Clinic Integration into PCP Network at CHW

**Current: MinuteClinics
Provide After-Hours Acute Care**

- PCP offices educate patients about evening, weekend hours at MinuteClinics
- Co-branded MinuteClinics refer new patients without PCP relationship

**Future: Chronic Care Management Support,
Low-Acuity Visits Off-loaded to MinuteClinics**

- Plans for MinuteClinics to be fully integrated into PCP network, act as extension of PCP care team
- PCP provides medical oversight, low-acuity visit referrals
- MinuteClinics provide chronic care monitoring, labs, physician referrals

Catholic Healthcare West

- Health system of more than 40 hospitals in California, Arizona, and Nevada
- Formed nonfinancial alignment with 10 MinuteClinics in Phoenix, Arizona
- Alignment part of tiered primary care strategy to reduce ED utilization, improve care coordination
- MinuteClinic negotiating shared care protocols with CHW urgent care centers

Source: Marketing and Planning Leadership Council interviews and analysis.

Integrating Retail Clinics with PCP Practices

At Heritage Valley Health System in Beaver, Pennsylvania, retail clinics located in Wal-Mart stores serve as geographic extensions of PCP practices. Each clinic's nurse practitioner is employed by the health system, and the clinics are co-branded as "Heritage Valley ConvenientCare—The Clinic at Wal-Mart." System leaders have identified three key elements to the success of their retail strategy:

1. Mutually beneficial physician engagement: To comply with state regulations and alleviate physician concerns about competition, Heritage Valley's PCPs provide oversight for the clinics' NPs, who refer patients to PCPs for more complex cases. As a result, PCPs have become more comfortable with the clinics and now refer patients to the sites for after-hours and same-day low-acuity care.

2. EMR integration: Heritage Valley has installed its system EMR in each retail clinic, providing the clinic's NP with the patient's medical history and alerting PCPs when patients visit the retail clinic.

3. Care quality protocols: Each clinic's NP forwards all patient charts to the overseeing PCP for review and co-signature.

Key Components to Success at Heritage Valley

Provide Meaningful Incentives	Ensure Continuity of Care with Integrated EMR	Create Care Quality Backstops
PCPs assume clinic oversight, clinic provides extended-hours acute care coverage, referrals	NP aware of patients' previous PCP visits, PCP practice always up to date on patient use of clinic	Clinic NP conducts patient visit, all patient charts co-signed by overseeing PCP

Heritage Valley Health System

- Two-hospital, 654-bed health system based in Beaver, Pennsylvania
- System collaborates with Wal-Mart, creates three co-branded retail clinics
- Clinic NP is employee of health system; virtually extends practice geographic reach, extended hours and weekend hours that complement health system's PCP practices

Reassuring PCPs with New Referrals

Even when health systems work to integrate practices with retail clinics, some PCPs may still worry that retail clinics will steal their patients or reduce care quality and continuity.

Shortly after the pseudonymed Sorkin Health[1] opened its first retail clinics, system leaders received a letter from PCPs concerned that the retail clinics would erode their patient volumes.

Fortunately, the health system had anticipated this reaction and collected data on clinic utilization: only 2 percent of retail clinic patients had an existing PCP. System leaders had also implemented protocols at the clinic to support the primary care practices, which included training NPs to educate patients on the importance of having a medical home and placing brochures about employed PCPs accepting new patients in the waiting areas of retail clinics. The system's proactive efforts reassured the PCPs, who now refer their own patients to the clinics for after-hours care.

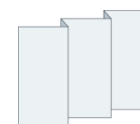## Preempting Fears with Data, Referrals at Sorkin Health[1]

2% Sorkin retail clinic patients with a PCP

15% Patients who would have alternatively sought care at an ED
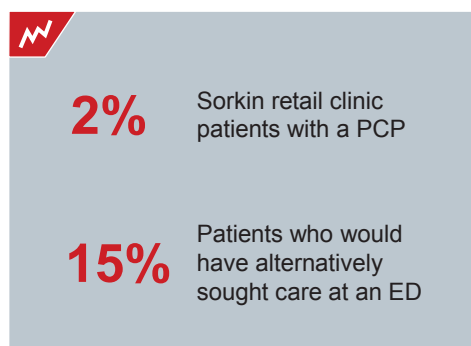
Patient Education

Clinic NP educates patients about value of having medical home

Making PCP Connections

Waiting area features information on physician referral line, collateral of system PCPs accepting patients

Sorkin Health System

- Small health system based in the South
- Opened several convenient care clinics in partnership with retail store in 2009
- Data collection, patient education efforts assuaged physicians' fear of losing acute care business to retail clinics

1) Pseudonym.

Two Models of Convenient Care Network Integration

The optimal degree of clinical integration between retail clinics and primary care practices depends on a variety of market and institutional factors, including local primary care supply and demand, PCP employment trends, the historical relationship between the system and local physicians (as well as among system competitors), mid-level scope of practice regulations, and chronic disease prevalence.

In recent years, two models have emerged. Limited integration relies on operational standards, including sending PCPs records of retail clinic patient visits. In this model, information flow is typically unidirectional from the retail clinic to the office practice.

Next-level integration is ingrained in infrastructure and staffing, and may feature bi-directional information flow between practices and clinics. Scheduling systems are linked, enabling retail clinic providers to schedule follow-up visits for patients with network PCPs. Integrated EMRs also enable physicians to review patient records and co-sign charts electronically. Next-level integration facilitates retail clinics' ability to serve as true practice extensions capable of providing ongoing care management services.

Key Elements of Limited and Next-Level Integration

	Limited Integration	Next-Level Integration
Physician Buy-In	Proactive outreach to PCPs to discuss concerns, outline potential benefits of health system's convenient care clinics; active data collection on patient USC to assuage physicians' fear of losing business to convenient care clinics	Engaging innovative physicians amenable to NP care, interested in growing role of convenient care in primary care practice; optimally, engaging physician with panel growth potential, time available to dedicate to patient chart review
Tightened Referral Mechanisms	NP educates patient on value of USC; operationalized referrals between clinic NPs/receptionists and system PCP offices	Linked scheduling systems between retail clinics, PCP offices maximizes referrals made while patient still at clinic, keeps patients in system
Continuity of Care	Ensure record of patient visit sent to patient's PCP office after visit	Electronic physician chart oversight through integrated EMR comforts patients over quality of care, ensures continuity of care
Hours of Access	Physicians refer patients to convenient care clinics for low-acuity care outside of physician office hours	Physicians refer patients to convenient care clinics for low-acuity care outside of physician office hours
Integration with Network	Negotiating care protocols between urgent care centers, convenient care clinics to ensure patients seek care at lowest-cost site of care appropriate for condition	PCP practice completely offloads low-acuity same-day visits, after-hours, weekends; potential for offloading certain types of chronic care management as convenient care competencies increase in this area

Source: Marketing and Planning Leadership Council interviews and analysis.

To Partner or to Own?

Practice integration is a key factor in a health system's decision about whether to establish its own retail clinics or partner with an independent operator. Systems must consider the level of control over referrals, choice of EMR, care protocols, and branding that each approach will permit. Strong integration with independent operators is feasible; as discussed earlier, both CHW and Heritage Valley have closely aligned their PCP practices with retail clinics developed in collaboration with national independent operators.

Systems must also consider the start-up costs, internal capabilities, and competitive concerns in these decisions; these and other considerations are outlined in the adjoining table.

Financial Risk of Ownership May Be Offset by Control, Referrals

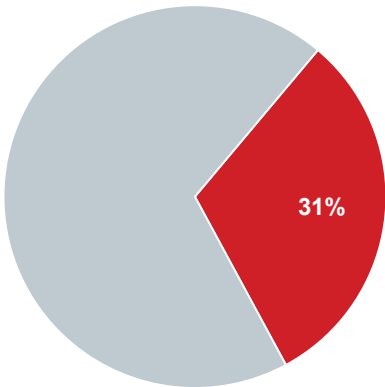| Partner with Independent Retail Clinic Provider	Build or Acquire Own Retail Clinic
Hospital aligns with independent clinics, providing medical directorship oversight, no other investment	*Hospital is sole owner, operator of clinic, which is integrated as another health system entity*
Benefits	**Benefits**
• Marketing opportunity through co-branding	• Can mandate downstream referral loyalty to employed PCPs, urgent care, hospital system EDs
• Improved downstream referral loyalty to network PCPs, urgent care, ED	• Install health system EMR to share patient records
• Network PCPs who do not want to offer evening, weekend hours can direct patients to clinics	• Develop protocols for care coordination
• Some leverage for EMR sharing	• Provide network PCPs with evening, weekend patient access opportunities
	• Clinic revenue accrues to system
	• Ability to share clinical staff between system, clinics
Potential Concerns	**Potential Concerns**
• Downstream referrals impact may be variable	• Financial risk due to required capital investment
• May not be able to coordinate, weigh in on what services retail clinic decides to offer	• Typical break-even point not until 18–24 months
• Retail clinic may reduce network PCPs' volumes	• Retail clinic may take volume away from network PCPs, which could have negative revenue impact on individual PCPs
• Network PCPs may be initially hesitant about partnership, requiring communication and data	• May face stronger PCP opposition that health system is "replacing" PCP practices

Source: Marketing and Planning Leadership Council interviews and analysis.

Moving From Occupational Health to Total Health

Worksite clinics bring the retail clinic model directly to the patient's workplace, offering another access point within the primary care network. To date, nearly a third of large employers have established on-site clinics to reduce benefit costs and improve productivity. Though traditionally focused on occupational health services, worksite clinics—like their retail clinic counterparts—are expanding their scope of services to include primary care services such as health screenings, immunizations, urgent care for injuries, and even chronic disease management.

Worksite Clinics Expanding Scope of Services

Percentage of Employers with 500+ Employees Offering Worksite Clinics

2008

31%

Services Employers Considering Adding to Worksite Clinics

2008

71% — Health Screenings
61% — Immunizations
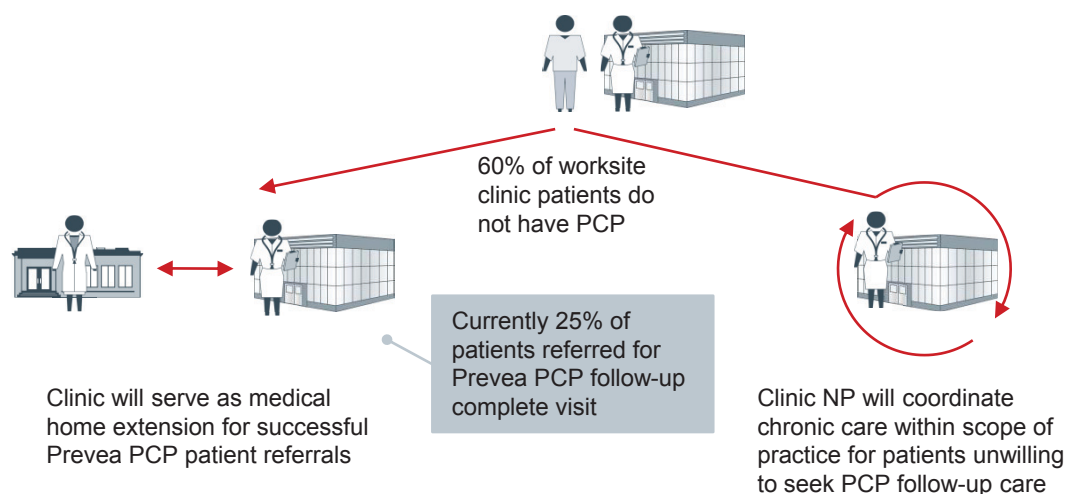56% — Urgent Care for Injuries
50% — Chronic Disease Management
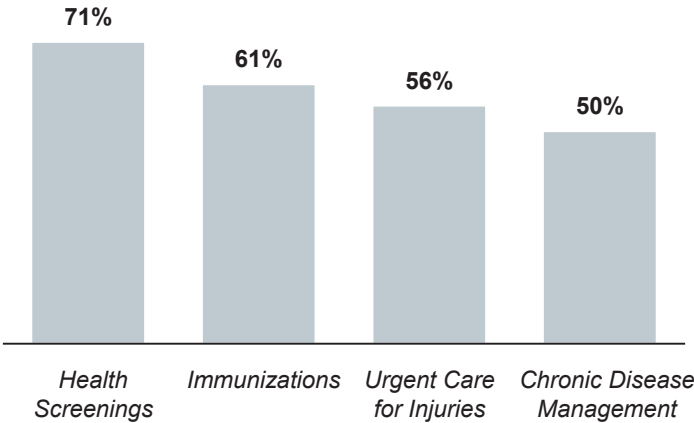
Source: Wojcik J, Survey: Work-Site Clinics Gaining in Popularity," Human Resources News Information, January 12, 2009, available at: http://www.workforce.com/section/news/article/survey-work-site-clinics-gaining-popularity.php, accessed April 1, 2011; Marketing and Planning Leadership Council analysis.

Connecting Worksite Clinics with PCP Practices…

Prevea Health operates five worksite clinics in Wisconsin, each staffed by a nurse practitioner and serving approximately 100 patients per month. The clinics have helped to build patient volumes at Prevea's PCP practices: Of the 60 percent of worksite clinic patients who do not have a usual source of care, 25 percent complete a follow-up visit with a Prevea PCP. The clinics also serve as an alternative primary care access point. For patients unwilling to seek follow-up care with a PCP, the clinic's nurse practitioner will coordinate care within scope of practice, following clinical protocols developed through Prevea's medical home model.

Across 2011, Prevea has established an integrated EMR across worksite clinics and PCP practices. The enhanced connectivity will enable the clinics to serve as geographic extensions of PCP practices, allowing patients to receive care at the most convenient location.

Enabling Future Worksite Clinic, PCP Practice Integration at Prevea

60% of worksite clinic patients do not have PCP

Currently 25% of patients referred for Prevea PCP follow-up complete visit

Clinic will serve as medical home extension for successful Prevea PCP patient referrals

Clinic NP will coordinate chronic care within scope of practice for patients unwilling to seek PCP follow-up care

Prevea Health

- 200+ provider multi-specialty group based in Green Bay, Wisconsin
- Five worksite clinics staffed by one NP each, serve an average of 100 patients per month
- Worksite clinics will roll out EMR integration with PCP practices across 2011
- Chronic care processes based on medical home pilots at Prevea PCP practices
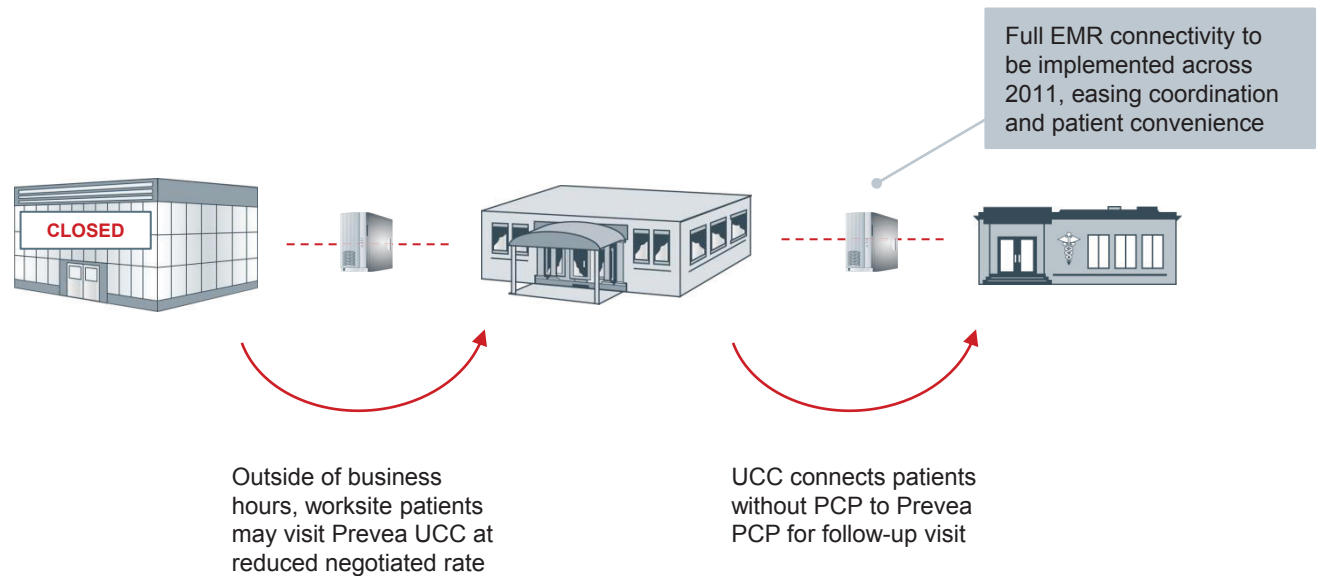
…And With the Entire Network

EMR integration also extends to Prevea's urgent care centers, which worksite patients are encouraged to visit outside of business hours. As an added incentive, these patients enjoy reduced rates for UCC care. Here, once again, patients are referred by center staff to a Prevea PCP for follow-up.

UCC, EMR Integration Secure Referrals During Off-Hours

A Second Chance for Referrals Capture

Full EMR connectivity to be implemented across 2011, easing coordination and patient convenience

Outside of business hours, worksite patients may visit Prevea UCC at reduced negotiated rate

UCC connects patients without PCP to Prevea PCP for follow-up visit

Test-Driving the Full Line of E-Visits

Historically the main site of primary care under the house call model, the patient's home is re-emerging as an integral primary care network component through the advent of e-visits. E-visits offer an opportunity to expand primary care access both by enhancing convenience for patients and by improving provider efficiency.

Pseudonymed Cody Health has been testing the comparative effectiveness of e-visits. In the study, patients participated in an e-visit and an in-person visit with another physician. For synchronous and asynchronous visits, no differences were revealed in clinical assessments between e-visits and in-person visits. Continuous visits could not be fully assessed due to the prohibitive cost of the monitoring devices, which limited the number of participants. Investigators plan to publish the results of the study soon.

Although no differences were noted in visit quality, e-visits did demonstrate an improvement in provider productivity: synchronous visits averaged 14 minutes, compared to 20 minutes for an in-person visit. Physician participants attributed the reduction to fewer distractions. Asynchronous visits resulted in the largest productivity gains, averaging just two minutes in length due to the large amount of assessment data collected prior to physician review. Asynchronous visits also presented fewer technology requirements for patients, who needed Internet access but not a webcam.

Pilot Project Reveals Congruence in Virtual, In-Person Assessments

Three Types of Tele-Health Visits

Synchronous Visits

- 14-minute live virtual visits require webcams, broadband connections, patient portal access
- Randomized, cross-over trial compared 200 e-visits, traditional visits, revealing no difference in clinical decisions

Asynchronous Visits

- Two-minute offline "visits" require patient portal access, standardized template of questions
- Randomized, cross-over trial compared 460 e-visits, traditional visits, revealing no difference in clinical decisions

Continuous Visits

- Continuous monitoring uploaded for provider review
- Monitored patients' clinical, physiological measures with physiologic-measuring armbands
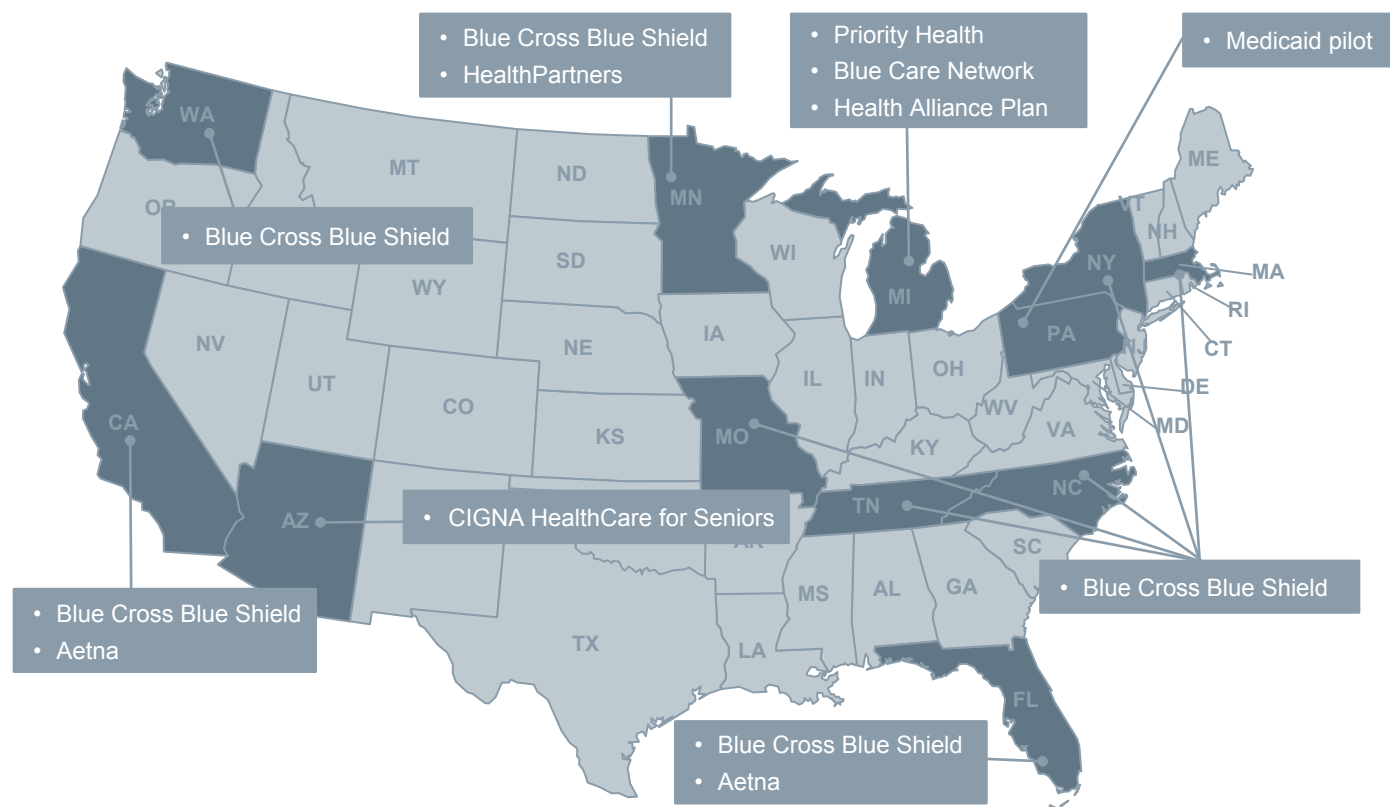- 30-participant limit due to high cost of armbands

Cody Health[1]

- Nine-provider practice part of health system in the Northeast
- One-year project launched in 2009 measuring physician satisfaction; patient satisfaction; quality of assessments; and appointment duration for synchronous, asynchronous, continuous visits

1) Pseudonym.

Source: Marketing and Planning Leadership Council interviews and analysis.

Tele-Health Reimbursement Gaining Traction

Reimbursement remains the major barrier to e-visits. However, after many years of slow progress, commercial insurers are implementing reimbursement for e-visits, though typically at lower levels than for in-patient visits. Blue Cross Blue Shield plans have been particularly active in both introducing reimbursement and developing self-pay models.

Select Insurers Covering E-Visits 2011

- Blue Cross Blue Shield
- HealthPartners

- Priority Health
- Blue Care Network
- Health Alliance Plan

- Medicaid pilot

- Blue Cross Blue Shield

- Blue Cross Blue Shield

- CIGNA HealthCare for Seniors

- Blue Cross Blue Shield
- Aetna

- Blue Cross Blue Shield
- Aetna

Concierge, Self-Pay Models Emerging

Some organizations are also exploring self-pay options. Blue Cross and Blue Shield Minnesota has created an online portal for all Minnesota patients, regardless of whether they are BCBS members. Users pay a flat fee of $45 for webcam, online chat, or phone consultations for common, low-acuity illnesses.

E-visits and email communication between patients and providers are increasingly common components of concierge practice offerings.

OnlineCareAnywhere Connects Patients with Providers Online

- Website serves as gateway between patient, provider
- Visit conducted by webcam, online chat, phone
- Self-payment required upfront

Concierge Practice Membership Fees Enable Tele-Health Innovation

- Phone, email access to any physician, NP
- In-person appointments up to one hour in length
- Evening, weekend access

Blue Cross and Blue Shield Minnesota

- Health insurer based in Eagan, Minnesota
- $45 visit covers consultation for common, low-acuity illnesses, and prescriptions
- Access restricted to patients, providers residing in Minnesota

Qliance Medical Management

- 12-provider primary care practice at three clinics based in Seattle, Washington
- $65 average monthly membership fee varies depending on patient age, level of service
- Additional charges for lab work, other services

Providers Not Waiting on Payers

Health systems are also introducing self-pay models to reduce care costs for their employees and capture market share in preparation for expanded payer reimbursement. After conducting a two-year pilot test involving 30 PCPs, UPMC recently launched e-visits for members of their health plan (a $20 copay) and for self-pay patients (a $30 fee).

Surfacing Latent Self-Pay Tele-Health Demand at UPMC
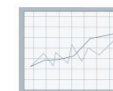
Maximizing Market, Maintaining Continuity of Care

Service available to all 45,000 patients already in UPMC EMR, even if patient's PCP does not participate

Pricing Familiar to Standard Copays

Visits priced at $30 self-pay, $20 UPMC Health Plan copay, with no other insurer participation

Growing Patient Interest

Average e-Visits per day system-wide increases to five from one after two months of operation

University of Pittsburgh Medical Center

- 20-hospital health system employing 277 PCPs based in Pittsburgh, Pennsylvania
- 2-year pilot in 2008 with 30 participating PCPs expanded symptom question templates of ailments to 20 from 6
- Launched full e-Visit capability with 60% PCP participation in October 2010

Source: Hamill Sean D, "Online Diagnosis: UPMC Doctors Treating Patients Over the Internet See Benefits," available at: www.post-gazette.com/pg/10340/1108273-114.stm?cmpid=healthscience.xml, accessed on March 23, 2011; Marketing and Planning Leadership Council interviews and analysis.

Beyond Physician E-Visits to Online Care Triage

Park Nicollet is further improving e-visits' efficiency by involving mid-level providers. The health system has partnered with Zipnosis to provide online diagnoses for low-acuity conditions, including strep throat, colds, and urinary tract infections.

The system's standardized care algorithms, developed by Park Nicollette physicians, walk patients through a series of diagnostic questions that require approximately five minutes to complete. Within an hour, a Park Nicolette nurse reviews the results, makes a diagnosis, develops a treatment plan, and arranges for a prescription or appointment referral if necessary.

Online Diagnosis Faster, More Efficient Than Physician E-Visit

Online Interview	Clinician Review	Diagnosis Delivered	Prescription Coordination
Patient spends five minutes answering questions about condition online	Nurse reviews symptoms, develops unique treatment plan for patient	Within hour, patient receives diagnosis, treatment options, prescription or appointment referral if necessary	If prescription[1] needed, patient selects most convenient pharmacy

Park Nicollet

- Integrated health system including two hospitals and multiple clinics based in St. Louis Park, Minnesota
- Partnering with Zipnosis to provide online and mobile diagnosis for basic health needs of patients, including colds, allergies, sinus, strep throat, and urinary tract infections
- For $25 credit/debit or health savings account charge, consumers answer questions about symptoms, get response within one hour from Park Nicollet clinician outlining diagnosis and treatment with prescription
- 12-month pilot launched in May 2010, Park Nicollet and Zipnosis will each receive portion of $25 revenue

---

1) Prescription cost not included in Zipnosis charge.

Sizing Potential for E-Visit Impact

Regardless of the e-visit model used, access and efficiency improvements can be significant. The pseudonymed Cody Health[1] study calculated average synchronous e-visit times of 14 minutes, or four per hour. This represents a 33% increase in visit volume over standard 20-minute in-person visits.

The Cody Health study calculated average asynchronous e-visit times of two minutes. Using a more conservative estimate of four minutes per visit, a provider could complete 15 asynchronous visits within an hour—a 400% increase in visit volume. Reimbursement potential for different visit types, along with patient and provider willingness to use e-visits, must also be considered.

Estimated Potential Volume Increase

Synchronous and Asynchronous E-Visits

Dr. Prosser, 4/27/11	
8:00–8:20	Duncan, T.
8:20–8:40	Childress, R.
8:40–9:00	Levy, J.
9:00–9:20	Paul, C.
9:20–9:40	Frances, T.
9:40–10:00	Franklin, F.
10:00–10:20	Sorin, S.

Synchronous E-Visits[2]	
14 minutes	Duncan, T.
14 minutes	Childress, R.
14 minutes	Levy, J.
14 minutes	Charles, T.

Asynchronous E-Visits[3]	
4 minutes	Paul, C.
4 minutes	Frances, T.
4 minutes	Franklin, F.
4 minutes	Davidson, S.

33%
Potential visit increase by switching in-person visits to synchronous e-visits[1]

400%
Potential visit increase by switching in-person visits to asynchronous e-visits[2]

1) Pseudonym.
2) Assumes synchronous e-visit time of 14 minutes, per Cody Health (pseudonymed) findings. Reduction in time from in-person visit attributed to fewer provider distractions during consultation.
3) Assumes conservative four minutes per asynchronous e-visit based upon Cody Health (pseudonymed) findings. Asynchronous e-visits require patients to fill out forms and answer pre-determined questions online, but allow providers to assess, provide consultation at a later time.

Source: Marketing and Planning Leadership Council interviews and analysis.

Key Takeaways for Leveraging the Coordinated Network

6 **Tap Key Stakeholders for Targeted Network Siting**

Existing opportunities to gather relevant market data for network siting are underutilized and new opportunities to engage payers are emerging. Data may reveal surprising opportunities regarding consumer needs and preferences for the location, hours of operation, and services provided at network sites.

7 **Catalyze Growth Through Co-Location**

Co-locating practices with urgent care centers and free-standing EDs can rapidly augment practice patient volumes. When identifying primary care services suitable for co-location, systems must assess a variety of factors, including patients perception of the site as a desirable location for additional services, opportunities and challenges associated with potential staffing and service overlaps, and feasibility of EMR and scheduling system integration.

8 **Offload Care to Integrated Convenient Care Clinics**

Retail clinics offer a significant opportunity to offload low-acuity visits and chronic care management services, freeing primary care practices to take on additional patients and spend more time with complex patients. However, successful implementation depends on connectivity between retail clinics and physician offices to ensure provider acceptance, continuity of care, and referrals management.

9 **Increase Worksite Presence**

Worksite clinics build relationships with employers and provide patients with alternate (and potentially more convenient) sites of primary care. In fact, many worksite clinic consumers may view the clinic as their medical home, increasing the importance of integrating clinics with other sites of care for off-hour referrals.

10 **Offer E-Visits Based on Payer, Market Receptivity**

Practices can conduct a sizable portion of visits virtually, although reimbursement for e-visits is still not widespread or standardized. Organizations should identify the first wave of willing physicians and consumers through a self-insured health plan and self-pay models.