The Advisory Board Company

Medical Group
Strategy Council

# Redesigning the Primary Care Clinic

Rethinking Workflow, Clinic Design, and Access Points to Extend Care Team Reach

# Medical Group Strategy Council


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# Available Within Your Medical Group Strategy Council Membership

Over the past year, the Medical Group Strategy Council has developed numerous resources to assist members in addressing physician strategy. The most relevant resources are outlined here. All of these resources are available in unlimited quantities through the Medical Group Strategy Council membership.

## Strategic Guidance for Medical Group Leadership in an Era of Reform

**Staffing for Population Management**
Strategies for leveraging advanced practitioners to expand access to cost-effective care (Webconference)

**Building the Integrated Clinical Enterprise**
Six lessons for medical group executives seeking to lead service line transformation (Book)

**Next Generation Physician Compensation: Defining an Enduring Model**
Building compensation models amid market uncertainty (Whitepaper)

**Analyzing Compensation at Fair Market Value**
Guidance for structuring compliant physician compensation plans (Whitepaper)

**Building Actionable Performance Dashboards**
Lessons for creating medical group dashboards that demonstrate value and support management (Book)

## Tools to Support Medical Group Strategic Planning and Performance Improvement

**Medical Group Performance Benchmarks**
Benchmarks for medical group financial performance, productivity, staffing levels, and management infrastructure

**Stakeholder Perception and Alignment Audit Toolkit**
Surveys and mapping exercises to ensure that medical group strategic goals are aligned key stakeholder expectations

**Change Readiness Assessment**
Questionnaire for assessing medical group ability to execute change at scale

**Performance Improvement Best Practice Crosswalk**
"One-stop-shop" for identifying industry-tested Advisory Board best practices for a wide range of performance opportunities.

**Primary Care Volume Estimator**
Tool for assessing primary care capacity based on primary care visit volumes at a county level

To access these and other Medical Group Strategy Council resources, visit our website: advisory.com

# The Future of Patient-Centered Primary Care

# Envisioning the Future of Primary Care Delivery

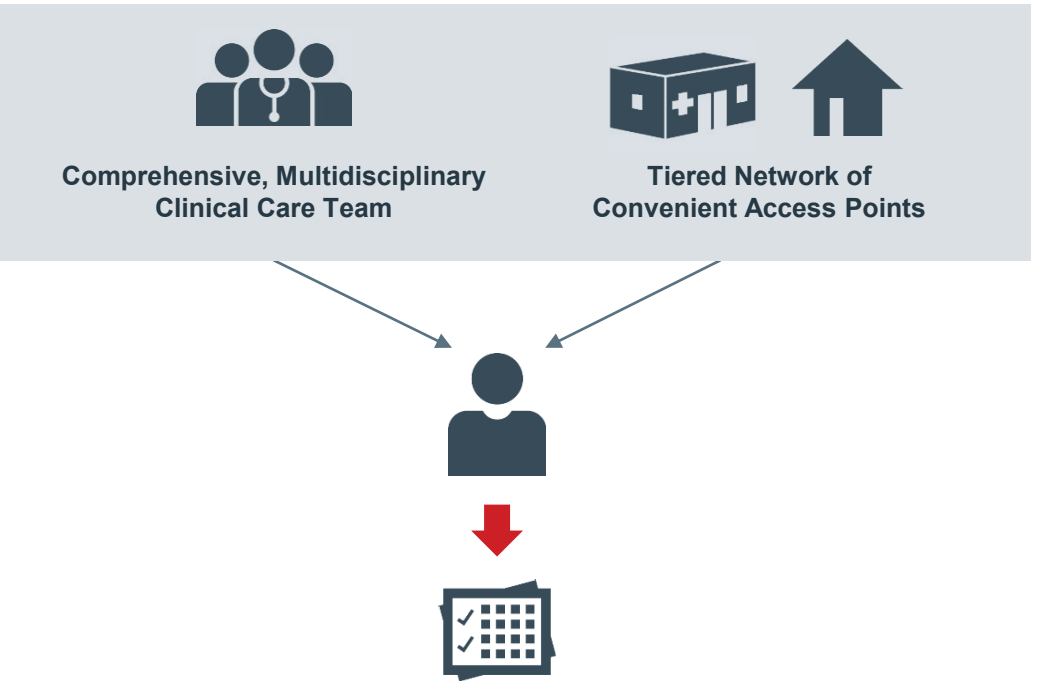
Primary care forms the foundation of our population health efforts. It is the key currency in expanding care access, managing chronic conditions, and improving efficiency in health care.

As the primary care visit evolves to meet new patient needs, the primary care clinic's role in care delivery will change as well.

Inside the primary care clinic of the future, patients work with teams of providers to address preventive and chronic care needs. Multidisciplinary care teams located at tiered access points will help patients develop personalized care plans for ongoing management.

## Providing Personalized Support for Ongoing Care Management

**Key Elements of the Future Primary Care Network**




Source: Health Care Advisory Board interviews and analysis.

# Clinic Transformation Part of Broader Primary Care Innovation Efforts

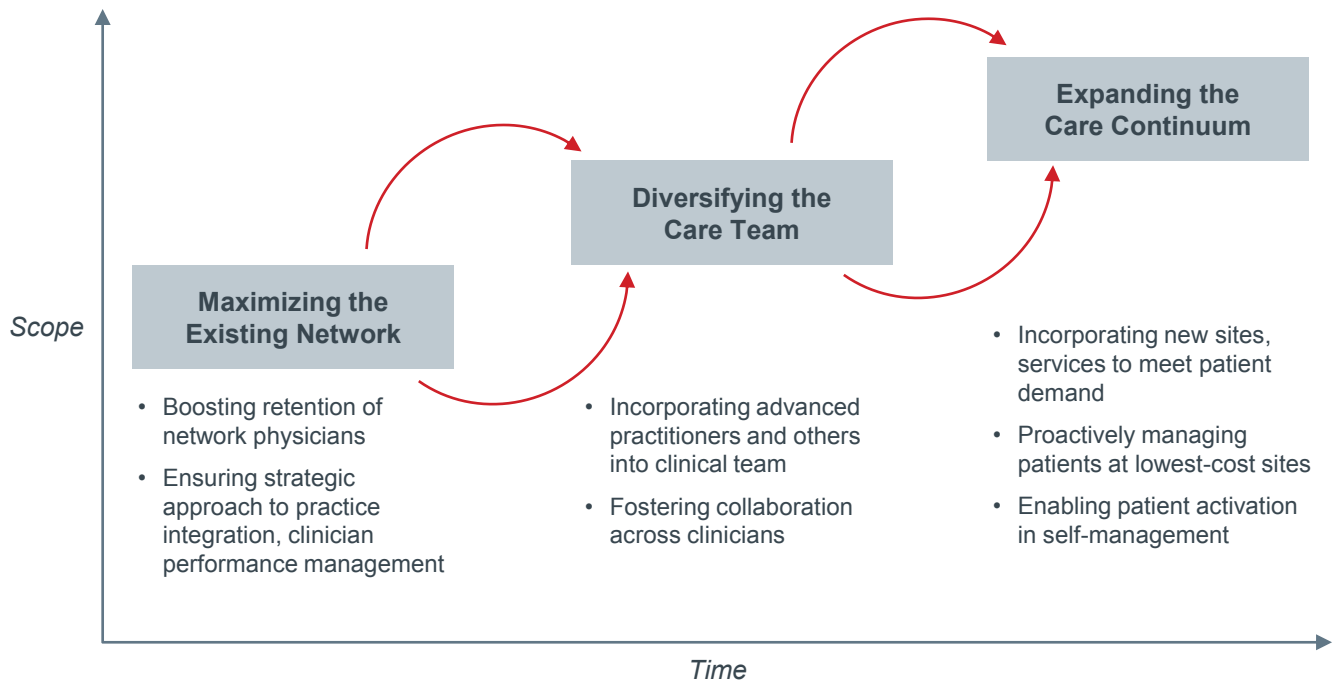
Changes to the primary care clinic represent one piece of a broader transformation of primary care delivery.

Today's study builds on the publication *Transforming Primary Care: Building a Sustainable Network for Comprehensive Care Delivery*, which helps organizations achieve three goals: (1) bolster and retain the existing primary care clinical network; (2) foster coordination between primary care teams and their hospital partners; and (3) ensure long-term financial stability of the growing primary care enterprise.

Earlier this year, we published *Realizing Full Value of the Care Team*, which helps medical groups maximize their return on advanced practitioners. Today's publication explores the evolving role of the clinic itself in supporting access expansion and multidisciplinary care management.

## Primary Care Investments Already Underway

**Building a Sustainable Network for Comprehensive Care Delivery**




For more information, please see *Transforming Primary Care: Building a Sustainable Network for Comprehensive Care Delivery*, available at: http://www.advisory.com/Research/Health-Care-Advisory-Board/Studies/2010/Transforming-Primary-Care and *Realizing Full Value of the Care Team*, available at: http://www.advisory.com/Research/Medical-Group-Strategy-Council/Studies/2013/Realizing-Full-Value-of-the-Care-Team

Source: Health Care Advisory Board interviews and analysis.

# Four Forces Expediting Further Primary Care Clinic Redesign

The forces driving an industry-wide transformation will also influence the role of the primary care clinic.

Purchasers seeking to reduce the total cost of care are driving providers and patients to minimize use of high-cost settings where not necessary. New reimbursement models reward providers for delivering care at lower-cost settings.

Patients – many facing tighter restrictions on health care spending – also seek lower-cost care options. These pressures, combined with new technology and patients' preference for convenience, have facilitated a shift in care to lower-cost, lower-acuity sites.

As the population ages, primary care must address increasingly complex patient needs. This requires a broader range of care management services at primary care.

Finally, a projected shortage of primary care physicians poses an existential threat to today's physician-heavy clinic model. Improving access and management requires deploying a comprehensive care team.

## Increasing Demand for Range of Services at Lowest-Acuity Sites of Care

### Cost Reduction Pressures

Purchasers demanding lower cost, higher quality care, better patient outcomes; focus on use of low cost sites of care

### Outmigration of Care

Technology, coverage changes, patient demand, driving patient care out of high-cost, inpatient settings

### Rising Chronic Disease Burden

Aging population of which 80% have at least one chronic condition, coupled with longer lifespans, requires more resources

### Projected Physician Shortages

Primary care physician shortage exacerbated by Medicaid expansion, projected to exceed 100,000 by 2025[1]

1) Projections by Association of American Medical Colleges.

Source: "Are Medicare Patients Getting Sicker?" *TrendWatch,* American Hospital Association, December 2012; "Doctor Shortage Likely to Worsen With Health Law," *New York Times*, July 28, 2012; Health Care Advisory Board interviews and analysis.

# Current Clinic Design Focused on Primary Care Physician, Not Patient

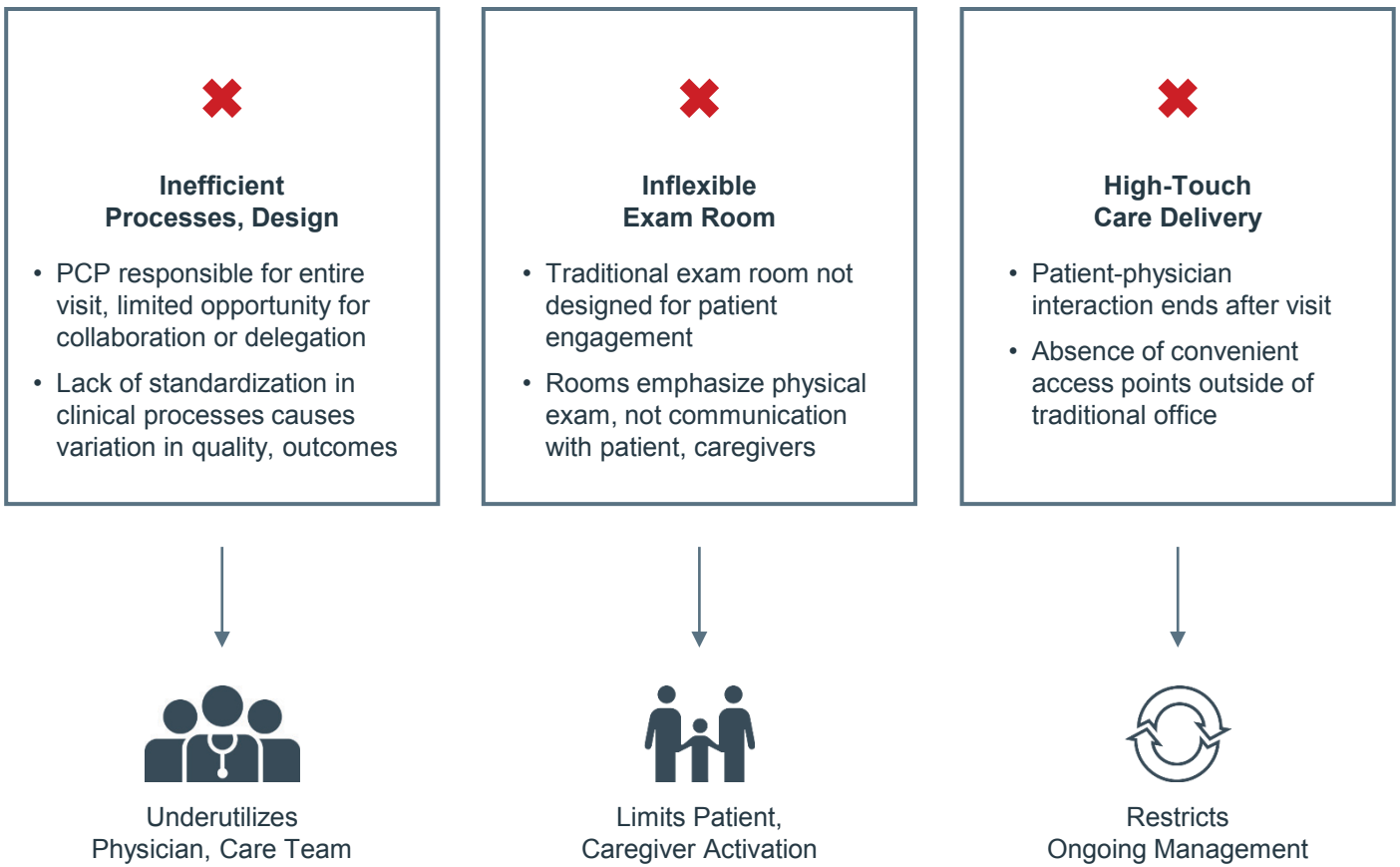
Responding to these forces requires a flexible primary care environment. Today's primary care clinic faces three challenges in adapting to these new demands.

First, current primary care practices are designed to accommodate a primary care physician who sees and manages every patient. Most of these practices underutilize non-physician clinicians on the care team.

Second, clinics' physical space typically revolves around the physical exam, and lack dedicated spaces for newer functions like care planning or chronic disease education.

Third, most clinics place an emphasis on in-person interactions; outside the clinic, patients have limited support from the primary care physician or team, and thus minimal continuity of their care plans.

**Practice Barriers to a Patient-Centric Primary Care Clinic**




Source: Health Care Advisory Board interviews and analysis.

# Redesigning Workflow to Encourage Team-Based Care

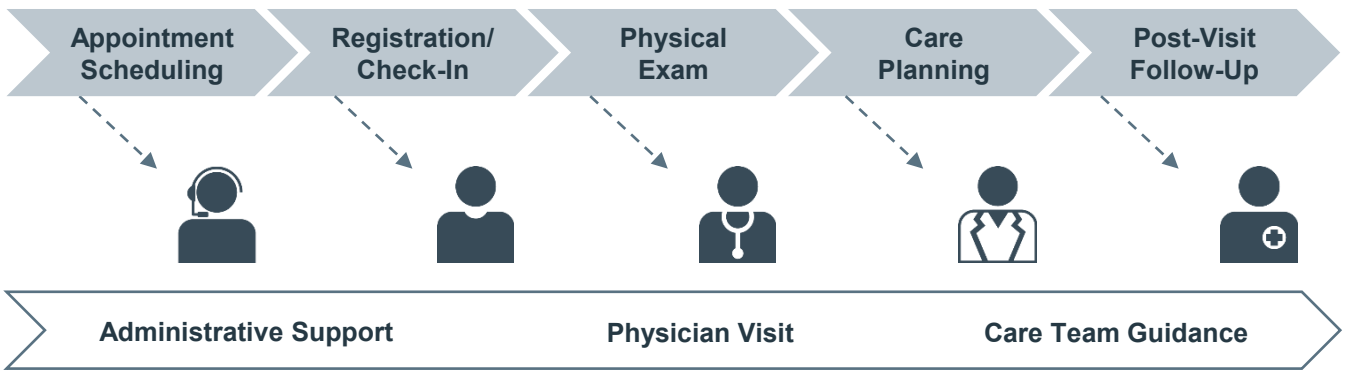
Consistently addressing all of the needs of a diverse patient panel requires a team of providers working in tandem. Ideally, the primary care physician leads a team comprising multiple types of non-physician providers, all working together to ensure efficient, effective care delivery.

Team-based care requires retooling workflows to define a clear patient pathway and dedicated roles for each staff member.

Furthermore, successful team-based care delivery requires cross-team care planning before and after patient visits. Clinic workflows must adjust to accommodate these collaborative activities outside the visit setting.

## Delivering on Seamless Patient Interactions

### Primary Care Visit Steps Shared Across Care Team




### Clinic Characteristics to Support Seamless Patient Experience

- Principled behind-the-scenes workflow standardization
- Defined clinical and administrative roles
- Streamlined patient interactions
- Continual practice staff communication and collaboration

Source: Health Care Advisory Board interviews and analysis.

# Matching Clinic Space to Goals of Patient Visit

While physical exams will continue to play a central role in primary care delivery, primary care clinics must also facilitate a wider range of patient visits. Flexible spaces within the clinic enable clinicians to spend time educating patients on their conditions, providing guidance for ongoing management, and helping activate patients and their caregivers.

At a minimum, exam room space must accommodate both physical exams and care planning. Ideally, exam rooms will be situated to maximize patient comfort and foster conversations between the patient and members of the care team about the care plan.

The best clinics will also accommodate group visits for patients with similar conditions.

## Flexible Spaces for Patient Education, Engagement

### Range of Purposes for In-Person Consults

**Physical Examination**

- Enables investigation and assessment
- Ensure patient comfort with adaptable exam table or chair

**Conversation-Based Care Planning**

- Eliminates power differential between physician and patient
- Dedicate space for roundtable discussions with patients and caregivers

**Shared Medical Appointments**

- Encourages interactions among patients to share own experiences
- Achieve scale and efficiency by addressing common patient conditions

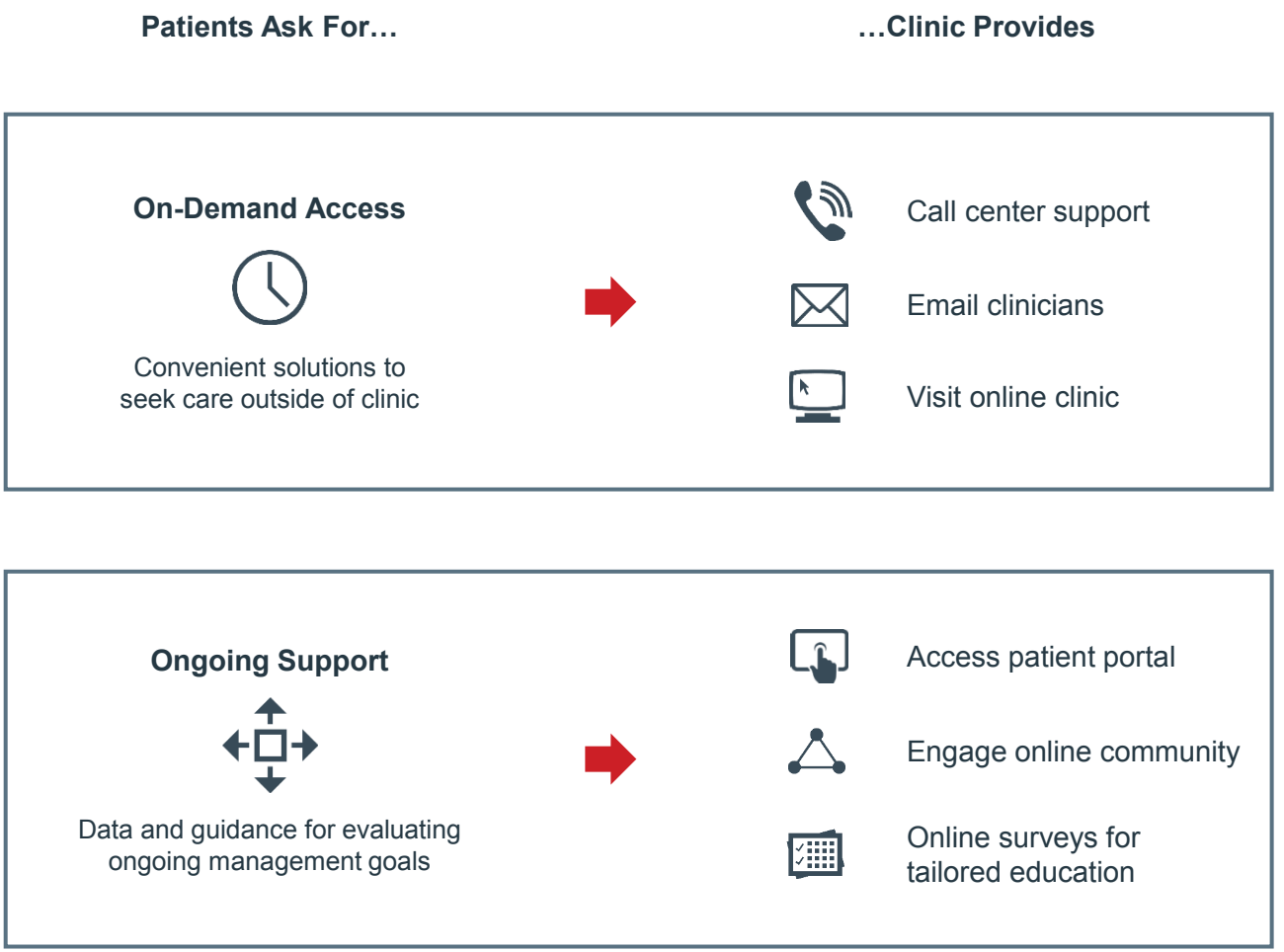
Source: Health Care Advisory Board interviews and analysis.

# Expanding Clinic's Reach to Support Ongoing Management, Access

Patients increasingly place a premium on the convenience of the care they seek, and new technologies enable patients to access care outside the clinic itself. As a result, primary care networks must expand its services beyond in-person visits. By adding new access points both physical and virtual, the care team can promote low-acuity utilization and provide patients with support for self-management in their preferred setting.

Clinics should invest in infrastructure to support phone appointments, virtual consults, and e-mail communication. To maintain connections with patients and reinforce care plan action steps, clinics can install patient portals or build online surveys.

## Patients Seeking Convenient, Personalized Support




Source: Health Care Advisory Board interviews and analysis.

# Adopt Principled Approach to Clinic Transformation

Many organizations will find large-scale renovations cost-prohibitive. Lacking significant budget to revamp practice space, groups should adapt their existing infrastructure to meet the new demands for primary care. Regardless of the budget for redesigning the practice, organizations are finding ways to repurpose space to improve care team interactions, expand available visit types, and implement new access and management tools.

For example, if the group lacks funds to build dedicated space for team meetings, clinicians should consider designating a set time each day for a team meeting in the hallways or the waiting room to share key information about specific patients and ensure a clear plan for the day.

## Organizations Adapting With or Without New Construction

| | **New Construction** | **Rethinking Current Space** |
|---|---|---|
| | *Most Resource-Intensive* → | *Least Resource-Intensive* |
| **Deploying Care Team** | Build dedicated space for care team interactions | Identify dedicated time for daily team discussions in hall, reception, break room |
| **Expanding Visit Types** | Build rooms with flexibility for multiple types of visits, both individual and group | Explore options in existing exam room to redesign workflow, enable group visits |
| **Implementing New Access, Management Tools** | Add new patient portal and full suite of monitoring tools with dedicated staff space for responding to requests | Fully implement existing resources, expand in a targeted fashion for key patient groups (i.e. high-risk) |

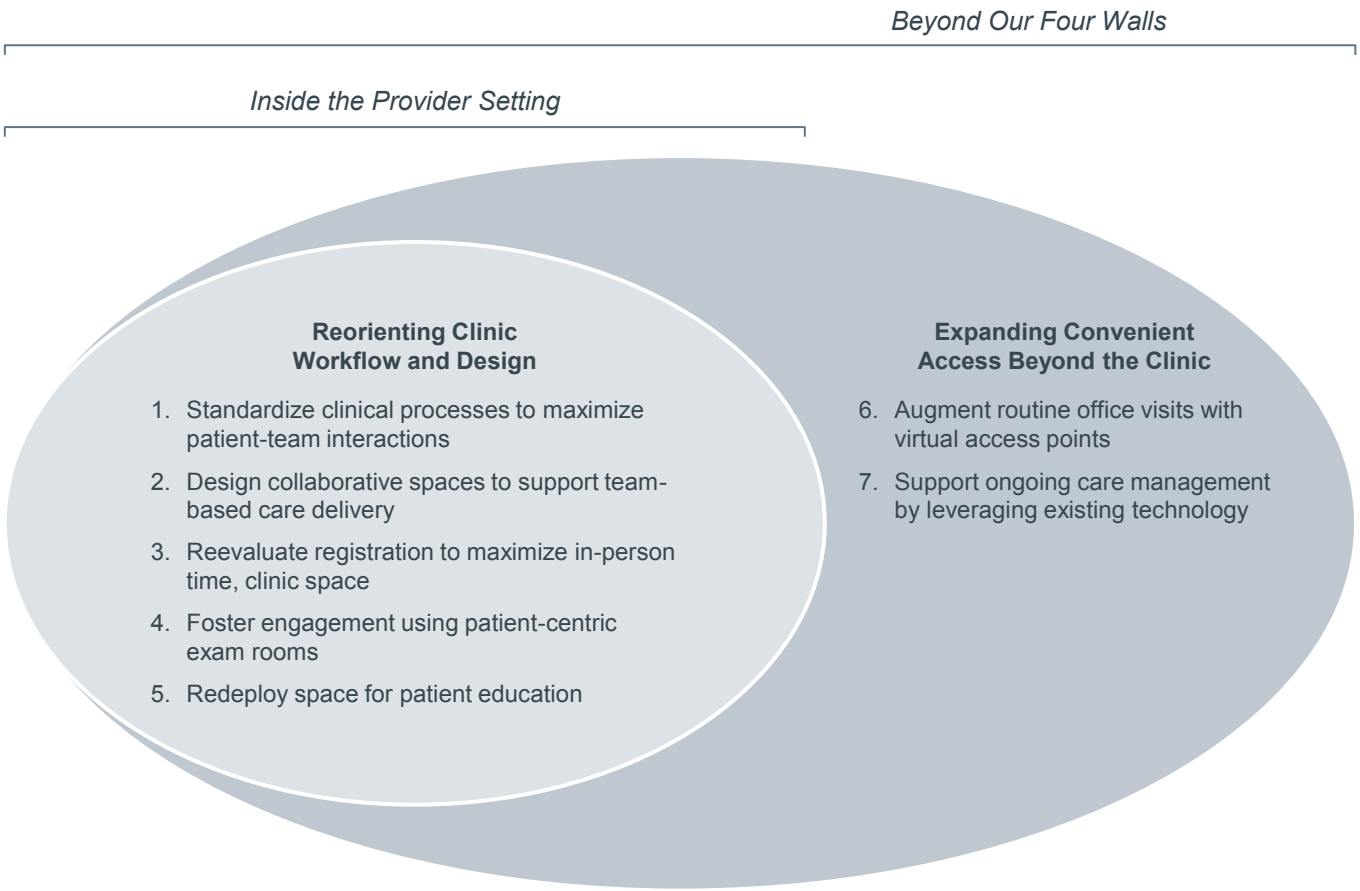
Source: Health Care Advisory Board interviews and analysis.

# Redesigning the Primary Care Clinic

Redesigning the primary care clinic requires new attention to physical space, team workflow, and access beyond the clinic's walls.

By reorienting clinic space and redesigning workflow, care teams can collaborate with patients to foster engagement and education inside the clinic. Expanding convenient access beyond the clinic allows the team to augment in-person visits with action steps that integrate care management into patients' lives.

## Retooling Workflow, Clinic Design, and Access Points to Extend Care Team Reach




Source: Health Care Advisory Board interviews and analysis.

# Redesigning the Primary Care Clinic

# Configuring the Primary Care Office for Collaborative, Productive Care

Within the clinic itself, transforming primary care delivery requires two things: maximizing care team time and engaging patients in their care. While patients' unique needs will require elements of customization, a standard, ideal patient pathway forms the essential base of primary care delivery. Clinics should first set standard patient pathways for certain prevalent conditions or visit types, and subsequently identify collaborative spaces to ensure agile but efficient team-based care delivery.

With the clinical processes and infrastructure in place, medical groups should focus on the logistical aspects of patient visits, adjusting both physical space and administrative protocols to support productive interactions between the care team and patients. This includes both minimizing tasks that do not require face-to-face interactions and maximizing visit spaces to accomplish physical exams and patient education.

## Redesign Processes, Space to Optimize Physician Time, Patient Experience

**Planning Seamless Care Processes**

1. Standardize clinical processes to maximize patient-team interactions
2. Design collaborative spaces to encourage multidisciplinary care

**Delivering High-Value Interactions**

3. Reevaluate registration to maximize in-person time, clinic space
4. Foster engagement using patient-centric exam rooms
5. Redeploy space for patient education

Source: Health Care Advisory Board interviews and analysis.

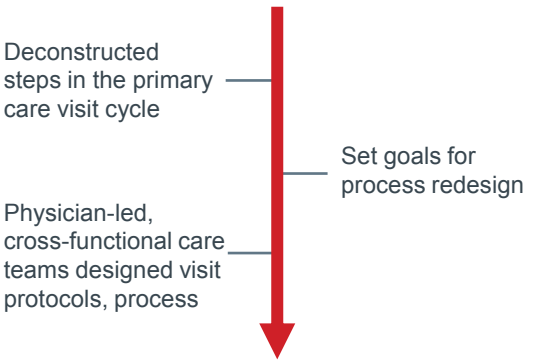
# Outline Patient Pathway to Direct Clinic Workflow

Outlining a clear set of care standards enables clinic staff to assign appropriate tasks to each member of the team, thereby maximizing provider time and offering patients a seamless care experience.

HealthPartners Medical Group convened a multidisciplinary team to identify each step in the primary care pathways for common conditions such as diabetes and congestive heart failure. In redesigning common care pathways, the team established five goals, including promoting top-of-license care to effectively use the PCP and each member of the care team.

## Developing Standards to Define Patient Pathway

**HealthPartners Medical Group Ambulatory Care Redesign Process**




**Goals for Primary Care New Care Process Design**

1. Promote top-of-license delivery
2. Increase provider efficiency
3. Appropriately use clinic resources
4. Support patient-provider relationship
5. Reduce workflow variation

### Case in Brief: HealthPartners Medical Group

- Multispecialty group practice with 750 PCPs based in Bloomington, Minnesota
- Developed standard visit protocols for diabetes, congestive heart failure, depression, mammography, preventive services, pediatric asthma, etc.
- Cross-functional teams included nurses, operations and clerical staff, patients and other providers as needed (e.g. dieticians, pharmacists, and patient educators).

Source: McCain, M. "Ambulatory Care of the Future: Optimizing Health, Service and Cost by Transforming the Care Delivery Model." The Chartis Group, available at: http://www.chartisgroup.com/files/pdfs/Ambulatory_Care_of_the_Future.pdf; Health Care Advisory Board interviews and analysis.

# Identify Key Steps Before and After Visits

HealthPartners Medical Group focused not only on the aspects of care that occurred during the visit, but on key steps before and after the visit as well.

In their new process, a care team member always reviews a patient's chart before her visit to identify any outstanding needs and schedule necessary tests ahead of time.

After the visit, the patient receives any necessary follow-up information to support ongoing care planning.

HealthPartners Medical Group saw marked increases in both patient experience and relative cost effectiveness following their care process redesign.

## Creating Standards for Each Step in the Patient Pathway

### Before Visit

- Scheduler reviews health maintenance care needs with patient, in addition to scheduling appointment
- After visit scheduled, HPMG contacts patient to arrange for any pre-visit requirements, (e.g. lab tests)

### During Visit

- General health needs, care reviewed (e.g. medication refills), regardless of patient's reasons for visit
- Patient provided with after-visit summaries

### Ongoing Support

- Patients receive timely notification of every test result via preferred mode of contact (e.g. mail, phone, electronic message)

**Improvement in Experience, Affordability**

**98%**
Percentage of patients that would recommend clinics

**10%**
Percentage points below statewide total cost average

Source: McCain, M. "Ambulatory Care of the Future: Optimizing Health, Service and Cost by Transforming the Care Delivery Model." The Chartis Group, available at: http://www.chartisgroup.com/files/pdfs/Ambulatory_Care_of_the_Future.pdf, accessed February 21, 2013; McCarthy, D, Mueller, K, and Tillmann, I. "HealthPartners: Consumer-Focused Mission and Collaborative Approach Support Ambitious Performance Improvement Agenda." *The Commonwealth Fund*, June 2009, available at: http://www.commonwealthfund.org/Publications/Case-Studies/2009/Jun/HealthPartners-Consumer-Focused-Mission.aspx, accessed April 22, 2013; Health Care Advisory Board interviews and analysis.

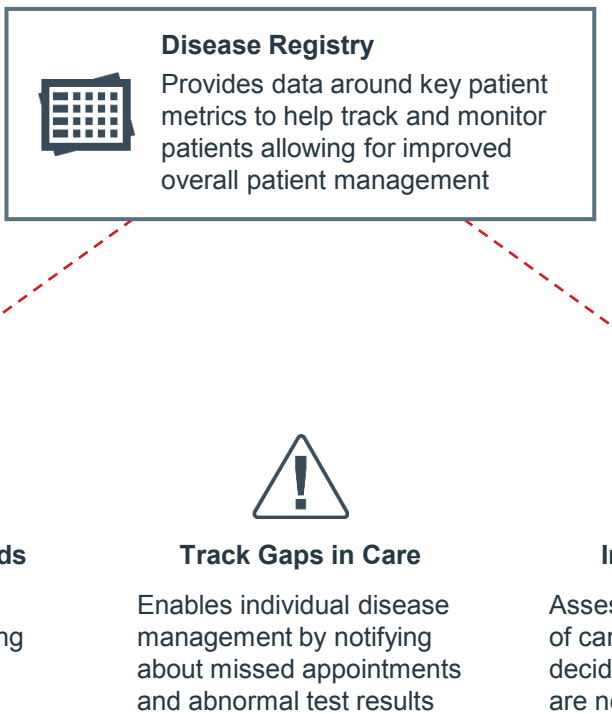
# Incorporating Technology to Support and Realize Practice Standards

Many medical groups are implementing patient registries to automate some of their clinical processes around primary care visits. Registries help care teams identify patients' likely needs and gaps in their care.

Progressive practices are using registries to improve three key processes: treating patients in the clinic, initiating outreach to patients before and between visits, and assessing the effectiveness of care delivery efforts on an ongoing basis.

## Registries Support Comprehensive Care Planning

**Essential Components of Effective Primary Care Delivery**




Source: Health Care Advisory Board interviews and analysis.

# Support Care Team Collaboration Through Consistent Communication

Even with the most solid clinical processes in place, clinics will struggle to deliver effective care if they lack spaces that encourage collaboration between physicians, nurses, medical assistants, and other members of the care team.

The most basic step is to reorganize teams into pods that can "huddle" in existing spaces. This budget-minded approach can achieve similar aims without investing in changing the space itself.

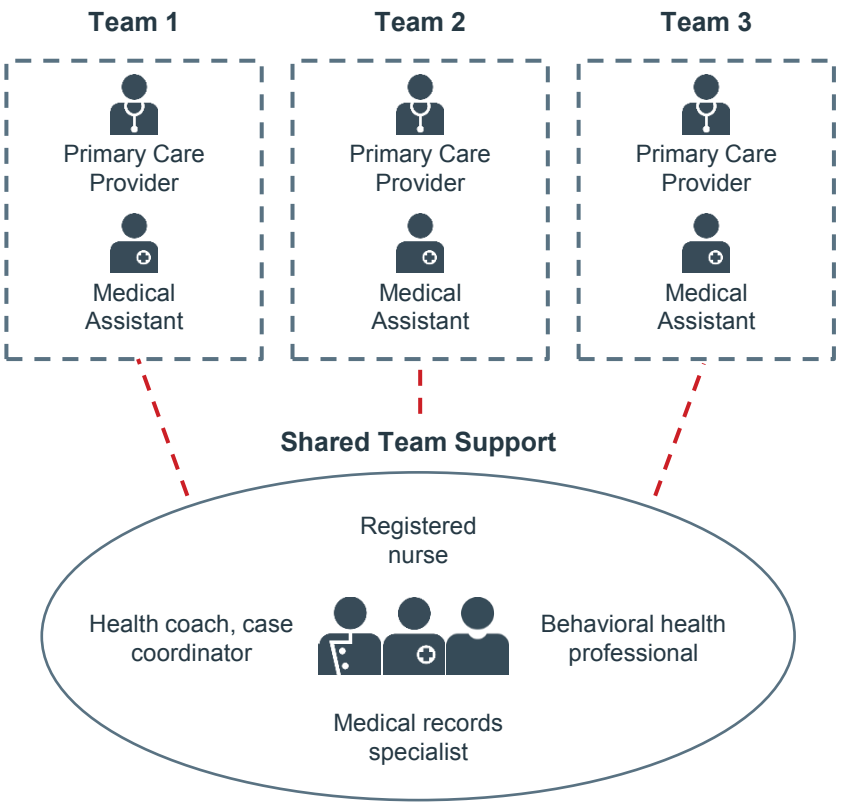
Clinica Family Health Services established care team pods that meet daily and huddle occasionally as a team. Pods consist of clinicians and medical assistants supported by a shared team, including health coaches, nurses, and other specialists.. Pods huddle for three reasons: (1) to identify the patients that will need more tailored clinical support, (2) to distinguish responsibilities across pod members, and (3) to bolster staff engagement.

## Primary Care Office Now a Multidisciplinary Site

### Care Team Huddles at Clinica Family Health Services

**Case in Brief:**
**Clinica Family Health Services**

- Four-clinic Federally Qualified Health Center based in Denver, Colorado
- Established pods to enable all staff to take ownership of patient panels, create systems of accountability and effectively share clinic work
- Pods are color-coded, as are clinic walls and appointment cards given to patients; patient are assigned to one color pod, builds relationships with clinical team
- Pods include shared team support staff and three individual teams, which manage their own patient panels




Source: Willard, R. and Bodenheimer, T. "The building blocks of high-performing primary care: lessons from the field." California HealthCare Foundation, April 2012; Health Care Advisory Board interviews and analysis.

# Design Spaces to Colocate Care Team Members

If budget allows, some organizations are investing to transform existing offices into team work space. Shared work spaces create an environment that supports multidisciplinary care planning.

As part of clinic transformation, St. John's Clinic eliminated private physician offices and created an open-plan, shared workspace for the entire care team. The new design included lounge areas and other spaces that encourage different team members to collaborate.

Some organizations find that physicians are the most vocal detractors of shared office space. They are reluctant to give up their offices, citing concerns about losing needed privacy. Clinics have addressed this concern by creating shared private spaces, such as quiet rooms or phone rooms, which can be used for private meetings by any care team member.

## Shared Spaces in Lieu of Private Offices Encourages Team Dynamic

### St. John's New Clinic Design

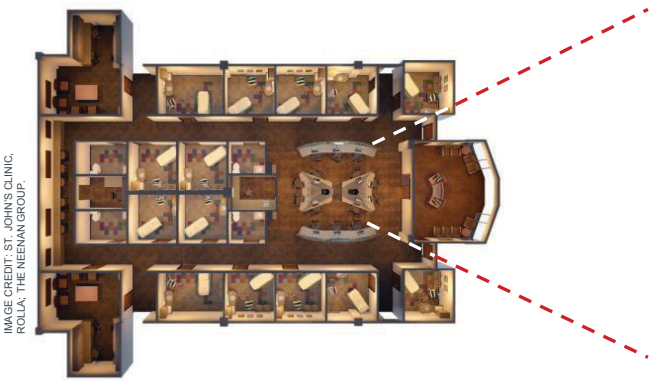


IMAGE CREDIT: ST. JOHN'S CLINIC, ROLLA; THE NEENAN GROUP.

### Shared Provider Workspace

- Eliminated private physicians offices, nurses station
- Care team providers co-located in shared provider lounges
- Open work environment enables nurses, physicians, mid-levels to interact more easily

**Case in Brief: St. John's Clinic, Rolla**

- Multispecialty practice part of St. John's Hospital located in Rolla, Montana
- Clinic redesigned to encourage team based care, improve patient experience in 2009

Source: The Neenan Group, available at: www.neenan.com; St. John's Clinic, Rolla MO; Health Care Advisory Board interviews and analysis.

# Rethink When and Where Patients Register

Another target for space redesign is the waiting room. Many pre-visit steps, like registration, do not require patients to be physically present. As such, some medical groups with multiple practices are centralizing registration at a single location, enabling the group to realize efficiencies and enabling patients to skip the waiting process.

St. John's Clinic relocated a significant portion of registration functions to an offsite call center. The call center nurses—known as the "communications care team"—perform a range of duties, including scheduling, answering clinical questions, and refilling prescriptions. Relocating the administrative activities offsite both freed up space and improved patient flow through the clinic.

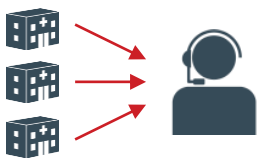
Patients that utilize the offsite-registration option are directed to a kiosk in the clinic to complete registration upon arrival.

## Centralizing Registration Before Appointments Improves Patient Flow

**21 minutes**

National average wait time for patient check-in

### Shifting Core Functions Offsite…



**Centralized Call Center**

Handles registration, scheduling, clinical questions, medication refills, and billing

**Case in Brief:**
**St. John's Clinic Call Center**

- Multispecialty practice part of St. John's Hospital located in Rolla, Montana
- Nurses, schedulers at centralized call center follow standardized protocols for all non-direct care functions

### …Leaving Only Essential Backup Onsite

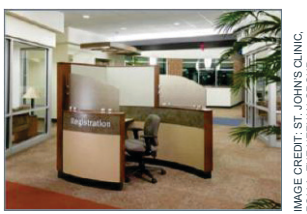


IMAGE CREDIT: ST. JOHN'S CLINIC, ROLLA; THE NEENAN GROUP.

**Private Alcove**

Dedicated phone line to call center serves patients in need of registration services

Source: The Neenan Group, available at: www.neenan.com; Health Care Advisory Board interviews and analysis.

# Kiosks Streamline Onsite Patient Check-In, Pre-visit Information

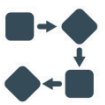
Organizations without either the volume or the resources to warrant investing in a call center should consider using kiosks to streamline check-in without adding staff.

Upon arriving to Vanguard Urologic Institute, patients answer a series of basic questions using self-service kiosks. Kiosks integrate seamlessly with the practice's other IT systems; the practice EMR automatically pulls patients' responses from the kiosk for review by a member of the care team.

Adding kiosks reduced wait times at Vanguard to an average of two minutes, compared to twenty-one minutes nationwide.

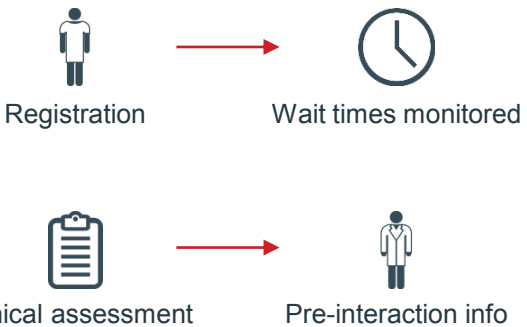
## Support Provider Information Gathering Using Kiosk Capabilities

### Facility Design Goals at Vanguard Urology Institute



- Minimize wait times
- Streamline routine processes
- Employ technology to optimize physician-to-administrative staff ratio

### Self-Service Kiosk Enables Tailored Provider Interaction




**Case in Brief: Vanguard Urologic Institute**

- Four-physician practice in Houston, Texas
- Opened in 2008 with focus on bringing innovative ideas, technologies in science, medicine to patients
- Kiosk expedites co-pay, bill collection by capturing patient payments on-site

**2 minutes**

Average check-in time achieved

**8:2**

Physician-to-administrative staff ratio

Source: NCR, "Vanguard Urologic Institute, An NCR Case Study," available at: http://c3185012.r12.cf0.rackcdn.com/v3-docs/5545815014ab31c01c76700a99de09d6/vanguard-urologic-inst-cs.pdf, accessed March 26, 2012; Health Care Advisory Board interviews and analysis.

# Portals Engage, Collect Pre-visit Data on Patients

The most progressive organizations are adding pre-registration to online portals. Encouraging patients to use portals for pre-visit needs minimizes patient's non-clinical interactions at the clinic. The information patients share in advance allows the care team time to prepare for their clinic visits.

Chenowith Physicians, a pseudonymed primary care practice in the West, has equipped their portal to allow patients to schedule appointments, review their health records and test results, and refill prescriptions online. The portal connects to the practice's EMR, enabling seamless information transfer between the two platforms.

## Using Portals to Improve Efficiency When Patient Is in the System

**Patient Portal Functionality**

- **Fill out medical history and other relevant forms prior to appointment**
- Arrange a virtual consult
- Schedule in-person appointment
- View biometric indicators
- Access personal EHR
- View test results

**Advantages**

Saves physician and patient time

Allows for compilation of patient data

**84%** Percent of patients fill out forms online prior to an appointment

**Case in Brief: Chenowith Physicians[1]**

- Primary care group practice based in the West
- Patient portal is attached to the patient's EMR; patients can easily share their medical history with all of their providers
- 10,000 patients have signed up for the portal

1) Pseudonym.

Source: Intuit, "How Patient Portals Create Value for Patients -- and Fulfill Meaningful Use Requirements," available at: http://healthcare.intuit.com/portal/docs/patient-portals-mu-whitepaper.pdf, accessed April 18, 2013; Health Care Advisory Board interviews and analysis.

# Designing the Ideal Exam Room

Our approach to primary care delivery has evolved, but exam room design has stayed static for the past 50 years. Medical groups must adapt exam spaces to serve changing team dynamics and new patient demands. As a first step, clinics can adopt patient-centered design elements to facilitate more interactive visits.

Exam rooms should continue to have dedicated space for physical exams. However, groups should ensure sufficient space within the exam area for multiple providers to move about easily.

Patient-centered exam rooms contain a separate area where clinicians can work with patients and their caregivers to establish a care plan, and another space for patients to converse face-to-face with their physician.

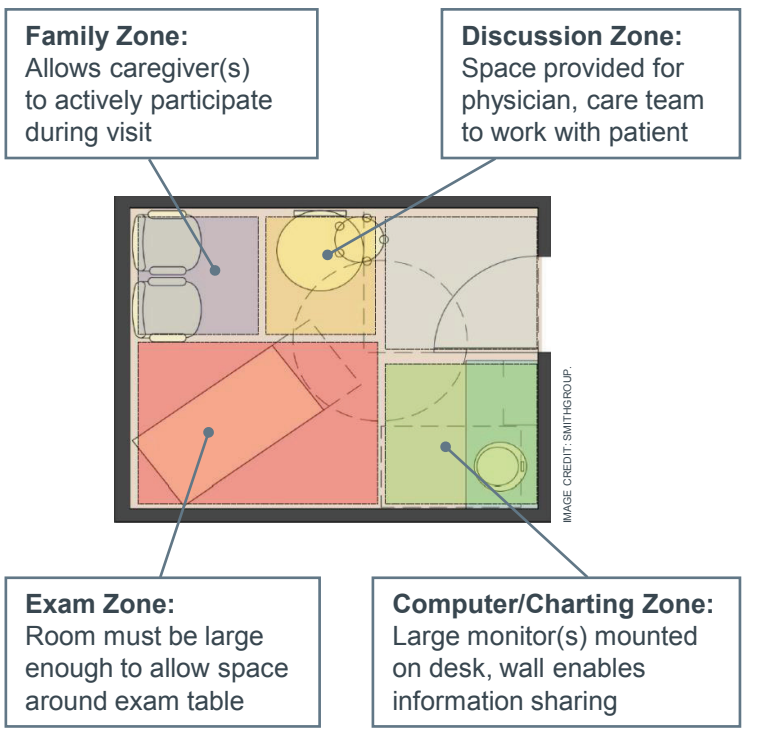
Lastly, most exam spaces involve a computer screen, where clinicians can access the EMR during or after a patient visit.

## Distinct Spaces Facilitate Patient-Provider Conversations

### Problems with Current Design

- ✖ Static design for past 50 years, despite changing technologies and processes
- ✖ Rooms create unequal “top-down” footing between doctor and patient
- ✖ Dominated by exam table and tools despite limited use during visit
- ✖ Inflexible use of furniture and space to accommodate patient needs

### Four Zones of the Ideal Exam Room




Source: SmithGroup; Anshen+Allen, a part of Stantec; Health Care Advisory Board interviews and analysis.

# Forge Patient, Provider Relationships Through Room Design

One approach to maximizing smaller spaces is to utilize furniture, such as exam tables and chairs, that morphs to serve multiple functions.

Mayo Clinic collaborated with research and design firms to create the SPARC Innovation Program. SPARC, which stands for "See, Plan, Act, Refine, Communicate," is Mayo Clinic's program to develop innovative solutions to health care delivery problems. SPARC undertook the primary care exam room as one of its projects.

The newly designed SPARC exam room includes comfortable areas for discussion that are separated from the exam space, to increase patients' comfort in communicating with their providers. In addition, the furniture in the room all serves two functions: couches turn into chairs, and exam tables sit up fully to become chairs as well.

## Creating a Flexible Exam Room to Meet All Patient Needs

### Elements of SPARC's Exam Room Prototype

**Dedicated patient space at table**

- Encourages interaction by enabling provider, patient to sit next to each other
- Provides opportunity to introduce note-taking tools

**Couches that morph into chairs**

- Removes element of patient being talked at, fosters patient, provider conversation
- Provides space for family participation

**Movable computer screen**

- Allows patients, care team to review EMR, lab data, images together
- Physicians often provide patients with printouts of requested information

**Adaptable exam chair or bed**

- Accessible to all types of patients
- Enables patient choice, comfort for physical exam

### Case in Brief: SPARC Innovation Program

- See, Plan, Act, Refine, Communicate (SPARC) innovation program sponsored by Mayo Clinic, IDEO, HGA[1] and Steelcase in June 2004
- Identifies, develops, tests and measures innovative processes for health care delivery
- Deconstructed traditional exam room into prototype to encourage patient engagement

### Arranging Space for Collaboration

"When doctors talk to patients in a typical exam room, it's a very linear, top-down kind of thing. In our new prototype room it's much more collaborative."

*Interior Design for SPARC program*

Source: "Case study: Mayo Clinic SPARC Innovation Program," Steelcase, 2006, available at: http://www.nurture.com/wp-content/uploads/2012/04/Mayo-Clinic-Case-Study.pdf, accessed on: February 26, 2013; "From foamcare to function," Mayo Clinic, 2006, available at: http://nexus.som.yale.edu/designmayo/sites/nexus.som.yale.edu.designmayo/files/imce_imagepool/Outpatient%20Lab%20Brochure.pdf, accessed on February 26, 2013; Health Care Advisory Board interviews and analysis.

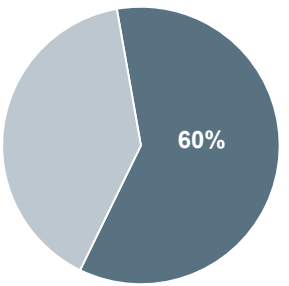
# Taking the "Exam" Out of Exam Room

While some practices have chosen furniture and space configurations that maximize flexibility, others have found they have less need for exam space generally. An estimated 60 percent of outpatient encounters do not require an exam table. Some primary care clinics are taking this data to heart, creating rooms configured entirely for conversations and without the table for patient consultations.

Southcentral Foundation's Primary Care Center built several rooms without exam tables. These rooms are used for visits focused on patient and family disease education and care planning.

## "Talking Rooms" Offer an Alternative to Exam Tables

### Estimated Percentage of Outpatient Encounters Requiring Exam Table




*Encounters That Do Not Require Exam Table*

### Functions of Southcentral Foundation's "Talking Room"

- Provides a less clinical setting for visits not requiring exam table
- Enables patients, family, care team to sit side-by-side promoting greater participation
- Provides flexible space for phone calls; private interactions; waiting families

**Case in Brief: Southcentral Foundation, Anchorage Native Primary Care Center**

- Outpatient facility in Alaska-native owned, nonprofit health system
- Designed exam rooms in effort to shift care to where it is most appropriately performed, reduce patient anxiety and include extended family in care plans

Source: "When a Village Leads a Nation," Southcentral Foundation and NBBJ; Health Care Advisory Board interviews and analysis.

# Group Visits Enhance Engagement and Capacity

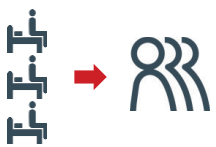
Beyond carving out one-on-one conversation space, some groups have dedicated spaces to group medical appointments, which integrate social, behavioral, and community support to engage patients.

Clinica Family Health Services uses group visits to facilitate patient education and improve provider productivity for a range of primary care services. Often led by a case manager or medical assistant, group visits are offered at the clinic for chronic condition management, well-child care, cold/flu prevention, anxiety, and prenatal care.

Group visits are meant to work in conjunction with individual office visits—not replace them. Some clinics co-locate group spaces next to an individual exam room to easily allow physicians to provide patients with brief private consultations during group sessions

## Peer Support Keeps Patients on Track, Delivers Return on Quality and Cost

### Components of Group Visits



- Quarterly two-hour visits on pre-determined topic
- Eight to ten patient participants, same every visit
- Visits led by case manager, medical assistant
- Individual consultations by patient's main provider
- Clear protocols, defined responsibilities for visit

### Patient and Provider Satisfaction

**$2.1M** Savings based on prevention of 43 pre-term births in 2010

**32%** Increase in provider productivity during group visit activity in 2010[1]

**85%** Patients electing to continue group visits

### Case in Brief: Clinica Family Health Services

- Four-clinic Federally Qualified Health Center based in Denver, Colorado
- Piloted group visits in 2001 after diabetes patients no-showing for one-on-one visits; developed visits for chronic pain, ADHD, pre- and neo-natal, and asthma patients
- Group visits typically billed as individual 99231s as provider meets individually with patients

1) 4,790 patients seen in 862 group visits, individual visit slots equivalent of 3,625.

Source: Feder, J. Restructuring Care In A Federally Qualified Health Center to Better Meet Patients' Needs. *Health Affairs*, 20(3), 2011, available at: http://content.healthaffairs.org/content/30/3/419.full.html; Health Care Advisory Board interviews and analysis.

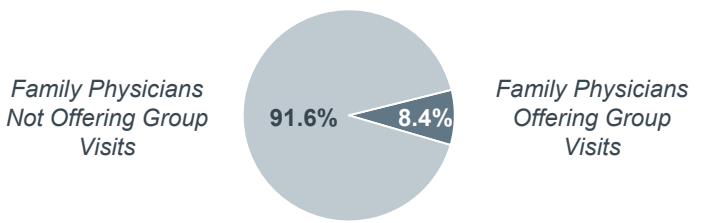
# Leveraging Shared Appointments for Ongoing Support

While survey data suggest that nearly half of patients are willing to participate in group visits, one recent study found that just eight percent of family physicians offer group appointments. Group visits provide an opportunity to scale high-quality chronic disease education and care planning across a larger patient panel, yielding operational efficiencies for the practice and potentially stronger engagement among participating patients.

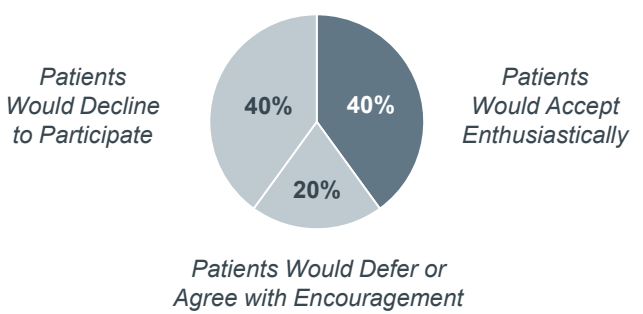
Group visits typically are used for diabetes, asthma, and other chronic conditions, but clinics have employed group visits to support patients' ongoing health maintenance goals, offering group health education classes and behavioral medicine programs.

## Limited Implementation Despite Patient Willingness

### Use of Group Visits by Family Physicians




### Patient Receptivity to Group Visits




| Key Considerations for Group Visits | |
|---|---|
| ✔ | Would patients feel comfortable sharing about condition with peers? |
| ✔ | Is there a relatively standardized care plan for the condition? |
| ✔ | Are there enough patients in your clinic to reach critical mass? |

Source: AAFP Practice Profile I Survey, Table 1. Use of Patient-Centered Medical Home Components by Family Physicians, July 2008; "Quality Grant at Work Improving CAD Program", available at: https://www.harvardpilgrim.org/portal/page?_pageid=253,217486&_dad=portal&_schema=PORTAL, accessed March 15, 2013; The Advisory Board Company, Blueprint for the Medical Home, Washington, DC; Health Care Advisory Board interviews and analysis.

# Space and Process Changes Best Suited for Scaled Clinics

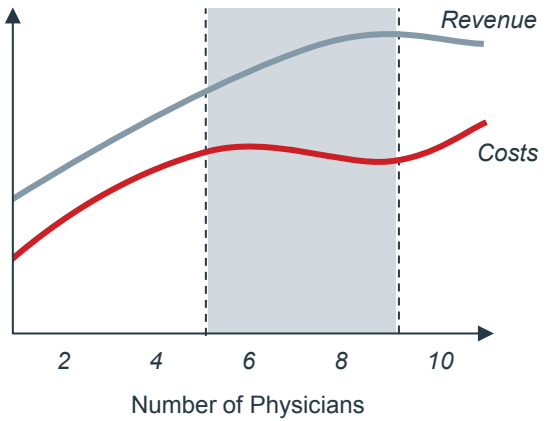
Not every practice is equipped to make these significant changes to their space. Council research suggests that clinic transformation is best suited for primary care practices with five or more physicians.

Clinics with fewer than five physicians lack the capital to support large-scale redesigns, or even the new care team members and other infrastructure that necessitate redesigns in the first place.

While clinics with more than nine physicians may have the capital, staff resources, and infrastructural capacity to benefit from redesign, they face other challenges due to their size. Council members report greater incidence of infighting in larger groups.

## Discovering the "Sweet Spot" for Primary Care Clinic Size

**Practices Should Include Between 5 and 9 Physicians**




### 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 6 to 8 they're fine financially, and the likelihood of group infighting and fracturing decreases dramatically."

*President, 700+ Physician Medical Group in Midwest*

### Disadvantages of Subscale

- Lack space to support expanded care team within clinic walls
- Often without finances for electronic information systems and other investments
- Difficult to meet standards for medical home qualification

### Advantages of Scale

- Provides space for in-house care team and ancillary support
- Offers flexibility in work options for primary care physicians
- Increases patient convenience with onsite diagnostic labs and imaging

Source: Medical Economics, available at: www.memag.com, accessed September 30, 2005; *Cost Survey for Multispecialty Practices*, Medical Group Management Association, 2006; Health Care Advisory Board interviews and analysis.

# Extend Entry Points and Monitoring Beyond Clinic Walls

Primary care increasingly extends beyond the four walls of the primary care clinic, into patients' everyday routines. To maximize primary care's efficacy while appealing to patients' new demands for convenience, medical groups must build virtual access points that engage patients between primary care visits.

Patients seek online scheduling, phone consults, email reminders, and other convenient ways to access and update health information. Responding to these needs will require some new investments – in things like virtual access points – but most groups can reconfigure existing technology to make ongoing care management easier and more accessible for patients.

## Serving Patients' Needs for Convenience, Connectedness

### Patient Aspirations for Virtual Access and Management

**72%** Want option of scheduling appointments online

**74%** Want to consult physicians via phone

**88%** Want emailed appointment reminders

**90%** Want to self-manage personal medical data online

### Connecting Patient Needs to Clinic Offerings

6. Augment office visits with virtual access points

7. Support ongoing care management by leveraging existing technology

Source: Accenture Connected Health Pulse Survey, "Is eHealth Enough to Satisfy Patients' Desire for Self-service?," June 19, 2012, available at: http://www.accenture.com/us-en/Pages/insight-ehealth-satisfy-patients-desire-self-service.aspx, accessed May 31, 2013; Health Care Advisory Board interviews and analysis.

# Extending Virtual Access for Low-Acuity Care

Virtual access points can offer patients more convenient care options while reducing clinic staff's patient loads.

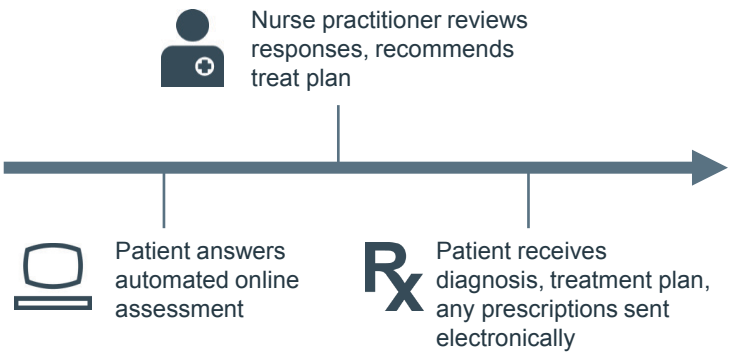
HealthPartners launched an online clinic called virtuwell to augment access to primary care services. Virtuwell offers diagnosis and treatment for 40 simple conditions typically associated with primary care, such as urinary tract infections and sinus infections.

Appointments generally take fewer than 30 minutes. Each appointment begins with a survey assessing a patient's symptoms, medical history, and medications. With the support of sophisticated interview algorithms, a nurse practitioner reviews the patient's information and recommends a treatment plan and medications, all of which are prescribed electronically.

Using the online clinic does not preclude a patient from speaking directly with a provider. Patients can speak with a nurse or nurse practitioner by phone with any additional questions.

## Leveraging Care Team to Support Accessibility Goals

### Virtuwell's 30-Minute Visit




### Virtual Access Proves Effective

| | |
|---|---|
| $88 | Reduction in average cost per case |
| 2.5 hrs | Reduction in average time patients spend |
| 90% | Cases resolved |

### Case in Brief: Virtuwell by HealthPartners

- Online clinic by launched to improve patient convenience operated by HealthPartners in Minnesota, accessible at: http://virtuwell.com
- Available to residents of Minnesota, Wisconsin and Michigan at a retail prices of $40 per visit, with insurance coverage lowering the out-of-pocket costs
- Patients not satisfied with experience can receive full refund of visit cost

Source: Courtneya, P., Palattao, K., and Gallagher, J. HealthPartners' online clinic for simple conditions delivers savings of $88 per episode and high patient approval. *Health Affairs*, 32(2), 2012, available at: http://content.healthaffairs.org/content/32/2/385.abstract, accessed February 2, 2013; Health Care Advisory Board interviews and analysis.

# Broadcasting Expanded Access to Patients

Virtual access points work well for patients with specific questions about their conditions, but they serve an equally important purpose for patients with low-acuity needs, keeping them engaged in health maintenance and connected to their home practice. Groups wishing to maximize use of virtual care must educate patients about available options, and reinforce that education whenever possible.

HealthPartners created the "Call, Click, or Come In" campaign to educate patients about alternative primary care access points. The campaign's website outlines the many ways a patient can quickly and easily access primary care. Patients can log onto the virtual clinic, talk to their provider over the phone, or schedule an appointment to visit the clinic.

## Educate Patients About Range of Options for Primary Care

**"Call, Click, Come In" Campaign**

Outlines conditions appropriate for visit type

Emphasizes convenience, options for clinic access

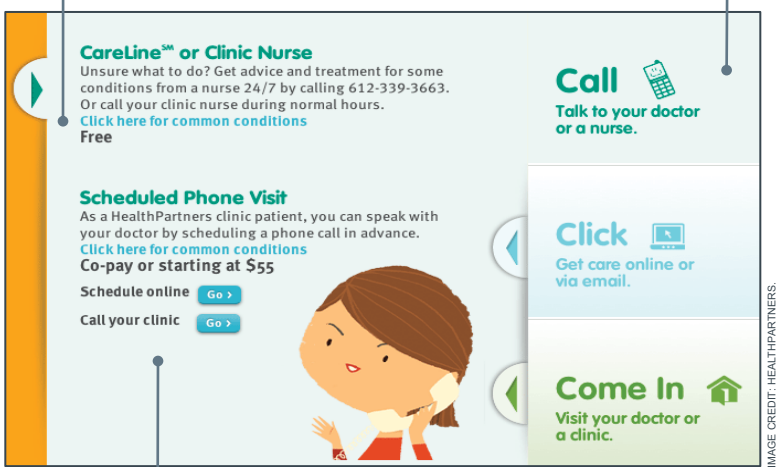



IMAGE CREDIT: HEALTHPARTNERS.

Provides relevant links, including online scheduling, hours, locations, etc.

### Case in Brief: HealthPartners

- Integrated health care system based in Minneapolis, Minnesota
- Developed comprehensive selection of primary care access points, including nurse call line, schedule phone visits, email visits, telemedicine visits, clinic visits, and urgent care visits
- Launched a marketing campaign to help patients easily navigate and determine the type and level of care that they want

Source: Health Care Advisory Board interviews and analysis.

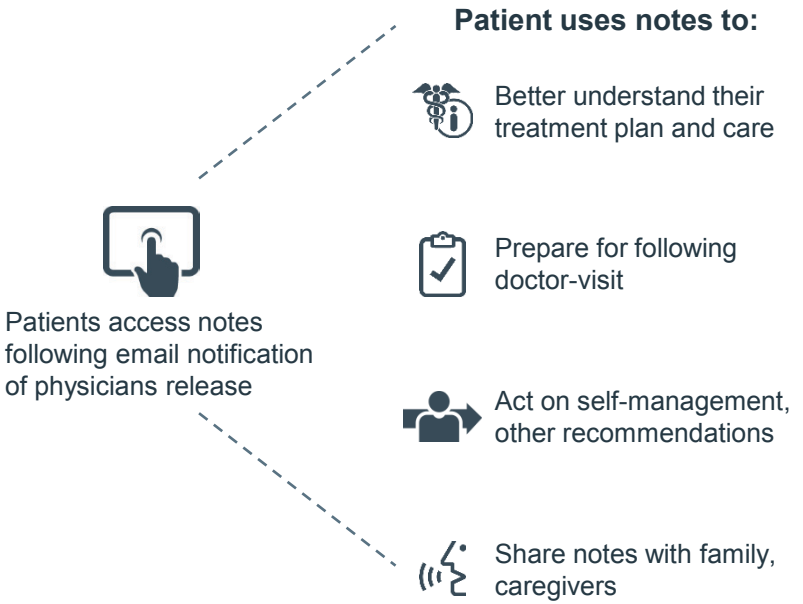
# Use Portals to Keep Patients Connected Between Visits

Managing patients between visits is critical to maintaining the care plan. The care team can keep patients engaged in ongoing management by using a range of strategies, including around the clock nurse hotlines, building out alternative care sites (e.g. retail clinics), and designing smartphone applications for disease management.

Some clinics are enabling patients to access a physician's visit notes to keep them engaged between appointments. Patient portals provide a natural vehicle for sharing this information with patients. In the OpenNotes Demonstration Project, doctors invited patients to access visit notes using a secure portal linked to the EMR. Patients used portals to review self-management recommendations and easily transfer health information to caregivers.

In fact, 60 to 80 percent of those in the demonstration "agreed" or "somewhat agreed" that accessing notes benefited self-management and medication use.

## Providing Patients Online Access to Physician Visit Notes




**99%** Patients wanted continued access to their notes

**Engage Patients and Caregivers**

"I find the notes more accurate than my recollections, and they allow my family to understand what is actually going on with my health."

*Patient Participant*

**Program in Brief: OpenNotes**

- Physicians invite patients to access their notes detailing visits via patient portal linked with their EMR
- 12-month demonstration at three major systems with over 100 participating physicians and 20,000 patients

Source: http://www.rwjf.org/content/dam/farm/communication_and_promotion/promotion_or_communication/2012/rwjf401616.

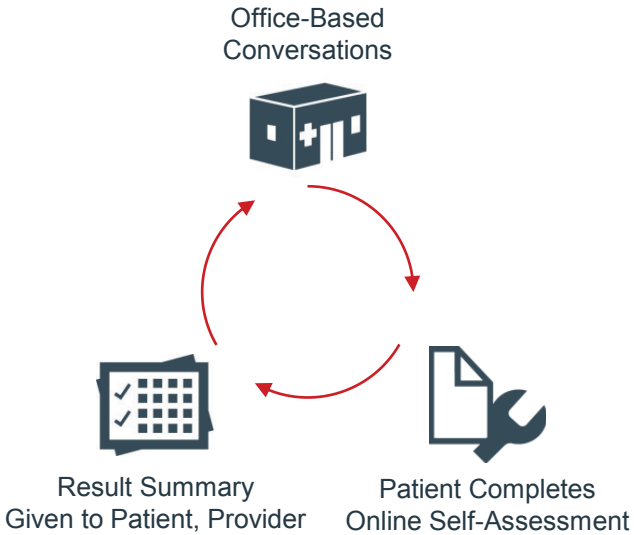
# Web-Based Surveys Promote Patient Engagement

Clinics can leverage online assessments to help providers identify noncompliant or high-risk patient behaviors early on while connecting patients to tailored resources.

HowsYourHealth.org is an online self-assessment tool built by providers that helps patients report symptoms, care steps, and other updates between primary care visits. Providers give patients a unique access code, and patients log in to complete a health assessment. Questions range from evaluating a patient's every day activities to determining how well a patient understands his care plan. After answering the questions, patients receive a health status assessment and recommendations for ongoing management. Patients' providers receive a comprehensive report about their self-care habits and health maintenance abilities.

## Pre- and Post-Visit Assessments Open Door for Targeted Follow-Up

### Integrating Information Gathering Between Visits




### Survey Questions Capture 360º View of the Patient

**Health Care**

*"How many different medications are you currently taking more than three days a week?"*

**Health Habits**

*"During the past two years, how often have you been told that you should cut back drinking alcohol?"*

**Health Literacy**

*"How confident are you that you can control, manage most of your health problems?"*

**Daily Activity**

*"Do you have enough money to buy things you need to live everyday, i.e. food, clothing, housing?"*

### Technology in Brief: HowsYourHealth.Org

- Free web-based self-assessment tool created by network of physicians, nurses, researchers at Dartmouth Medical School
- Patients receive unique code to access tool from provider
- Provides "real-time" patient-reported data on functioning, overall health, and chronic conditions
- Includes follow-up options, (i.e. links to educational materials, text message reminders to take medicine, exercise)

Source: The Commonwealth Fund, "Quality Matters Patients Gain Information and Skills to Improve Self-Management Through Innovative Tools," available at: http://www.commonwealthfund.org/Newsletters/Quality-Matters/2010/December-January-2010/In-Focus.aspx, accessed March 26, 2013; Health Care Advisory Board interviews and analysis.

# Aggregating Patient-Specific Information to Manage Population

HowsYourHealth.org also allows providers to access aggregate data about all patients in their panels who complete the online assessment. Individual providers and whole groups can use this data to assess the efficacy of certain interventions or approaches, and to analyze target populations to better tailor their primary care experience.

## Using Assessments to Better Understand Patient Panels

**From Individual Assessments…**

- Provider gives patient unique code to access tool
- Assessment results sent to individual provider with patient identifier

**…to Population Management**

- Provider can access aggregate, de-identified data for regional differences, variations in patterns of care
- Tool aids panel management for clinics that drive utilization among existing patients

**Analyze Patient Panel on Multiple Components**

| Rx | ! | $ | ? |
|---|---|---|---|
| Condition-Specific | Risk Factor | Socioeconomic Status | Health Literacy |

Source: The Commonwealth Fund, "Quality Matters Patients Gain Information and Skills to Improve Self-Management Through Innovative Tools," available at: http://www.commonwealthfund.org/Newsletters/Quality-Matters/2010/December-January-2010/In-Focus.aspx, accessed March 26, 2013; Health Care Advisory Board interviews and analysis.

# Leveraging Data to Target Community Interventions

Perhaps the greatest advantage of health assessment data sets is the opportunity to identify populations most in need of scarce care management resources, which helps practices target interventions more strategically.

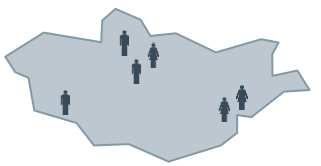
Duke Medicine uses a technique known as geospatial mapping to identify high-value targets for clinical interventions. A data repository links clinical registries and claims data with community resource information to identify geographic areas based on risk factors or disease prevalence. Clinicians and researchers work with community health agents to stage primary care interventions in high-priority communities.

For example, researchers at Duke Medicine used disease registries and geospatial analysis to identify neighborhoods in the county with high incidence of early-onset breast cancer. The team discovered that women in certain neighborhoods were only undergoing screening after presenting with a breast mass. The clinics deployed primary care navigators to provide community education and free breast screening at neighborhood community centers.

## Duke Medicine's Geospatial Mapping Initiative


**Aggregate Data**

Link data from claims and registries with information on community resources



**Identify Communities**

Pinpoint neighborhoods of high-risk factors or disease

**Deploy Resources**

Target neighborhoods with appropriate interventions, patient education

### Case in Brief: Duke Medicine

- The partnership of research, clinical care, and education between Duke University Health System, Duke University School of Medicine, and Duke University School of Nursing
- Implemented a Decision Support Repository, clinical registries, and geospatial mapping to help identify appropriate interventions, monitor patients' health status, and facilitate early intervention
- The Decision Support Repository is a clinical data warehouse that contains records for more than 3.8 million patients who visit Duke hospitals or outpatient clinics

Source: Association of American Medical Colleges, "AAMC Readiness for Reform, Innovations in Access, Duke Medince: Primary Care Capacity Building," available at: https://www.aamc.org/download/273688/data/dukemedicinecasestudy.pdf, accessed April 30, 2013; Health Care Advisory Board interviews and analysis.