
GroupHealth

Reforming the Delivery System at Group Health: 2010 Acclaim Award Recipient

Part One: Connecting the Hearts of Our People with the Pulse of Our Work

BY MICHAEL SOMAN, M.D.

Editor's Note: *In September 2010, Group Health was named recipient of the American Medical Group Foundation's 2010 Acclaim Award for its initiative "Reforming Our Delivery System."*

We are motivated by many things: goals and deadlines, fear of failure, the need to earn money, or the desire to please a boss. These things may push us, but over my career as a physician and leader, I have learned that people are only truly inspired by what touches their hearts—by beliefs that move them to do what really matters.

There's a poster in my office that captures why I am here. It's a vision for Group Health from about a dozen years ago that says our purpose is to "transform health care for our patients and the communities we serve." What kind of organization dares to dream of such things? Our history holds the answer.

It started 64 years ago when a small group of idealistic men and women embarked on a courageous experiment. They envisioned a medical group that would deliver comprehensive personal health services to the greatest number while reducing cost as a barrier to care. They believed in preventive care, and in providing physicians with incentives to achieve the best health outcomes for their patients rather than the most income for themselves.

This was a radical path that not everyone agreed with or understood. In the face of protracted social and legal issues with organized medicine, our founders actually mortgaged their homes to make it happen. We've faced skepticism and doubt ever since. But we have always been driven by deeply held values and beliefs, and Group Health has always persevered.

So what is it that continues to drive us—the nearly 10,000 men and women of Group Health?

So what is it that continues to drive us—the nearly 10,000 men and women of Group Health? What is it that inspires us to come to work every day to help people who may be sick? Or dying? Or who want to stay healthy?

To build a career serving patients is incredibly rewarding. But the training is rigorous, and the cost is high. Beyond the pressure of caring for people in difficult circumstances, we face mountains of regulations and a tidal wave of change as our industry struggles with a national healthcare crisis that continues to rage. And in the face of market turmoil and change, we transmit enormous pressure to staff to continually find new ways to deliver better care at lower costs.

Everyone at Group Health has responded incredibly well to a high dose of change, and we are in a very strong position as a result. Quality keeps improving; growth is up. Does this mean we're reaching the end of this journey we're on? No, because an even better future—where we've solved many of the major problems plaguing health care—is actually within reach. So what's going to keep motivating us? And can we dare to dream that we can go beyond motivation—to inspiration?

The answer lies in why each one of us has chosen Group Health as the place to devote our time and energy, and to build our careers. I believe there is something unique about this organization and the people who work here. Very few of us are in it just for the paycheck. Most of us are here because our personal values drive us to want to make a difference in people's lives, particularly in times of illness and crisis. Now we find ourselves in a unique position: we are transforming health care for our patients and the communities we serve.

We've shown that by integrating finance and delivery, we can create a patient-centered approach that offers the care we aspire to. No organization has done a better job of closing the gap between the care it provides and the quality and compassion that each patient wants and deserves. What's remarkable to me is that we've managed to this without fully, truly unleashing the passion of our people. To continue to transform health care we must fundamentally transform our relationships within Group Health—not as part of some new initiative, but as a continuation and deepening of the great framework we have already created.

We've worked incredibly hard to master new tools and learn new methodologies. We've improved processes and achieved greater

alignment. But we haven't consistently connected the pulse of the organization with the beating heart of our people. Our next challenge is to make real progress in this area.

We're finding ways to build a culture where we can come together honestly and accountably to keep patients at the center of our work. We're breaking down barriers so we can look at the entire patient experience from birth to end of life, and at every stage of wellness and illness along the way.

We have gotten much better at the business of medicine.

We're learning how to create well-thought-out systems that make the right thing to do the easy thing to do. To put it another way, we have gotten much better at the business of medicine. And in the world in which we live, you have to be good at managing the business of medicine before you can be great at practicing the art of medicine. Our work to get better at both must move forward.

So far, Lean management systems have helped us begin to respect the knowledge and experience of our frontline people. After all, they are the ones who are closest to the work. Learning to better respect what is in people's heads has already had an enormous impact on our organization. But now I'm talking about a deeper kind of respect. It's about asking what people believe and understanding what inspires them so we can support them to live out their values in their work.

It's not enough to just listen—we have to really hear what people are saying. We have to recognize what people have accomplished and understand how they feel about their work. We have to have empathy for their hopes and dreams and compassion for their fears and frustrations.

This is how we will create an inspiring and fulfilling workplace—by connecting what our people believe with the mission of the organization. It's an honor to have reached this point in our journey. It marks the beginning of a much longer process: to create an environment where everyone can devote their full passion to helping and to healing. This is the work we must now take on.

Michael Soman, M.D., *is president and chief medical executive at Group Health Physicians.*

Deepening Respect for People at Group Health

We must care for each other as dutifully as we care for our patients. When you round with staff, start by asking them how they feel about their workplace. Then listen to what they say. The point isn't to solve a problem or justify an action—it is simply to hear and to understand.

Simple things we can all do, starting tomorrow:

- Ask a question.
- Listen to the answer.
- Show that you have heard, without rushing to solutions.
- Appreciate, through your actions, what your co-workers do each day.
- Show respect for who they are, what they believe, and what they bring to their work.

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Part Two: Internal Transformation to External Expansion

Based in Seattle, Washington, Group Health Physicians is one of the nation's largest multispecialty groups, with nearly 1,300 clinicians practicing in 26 specialties. Group Health Physicians partners with Group Health Cooperative, a consumer-governed, nonprofit healthcare system that integrates care and coverage for more than 660,000 members. About 413,000 of these members are seen by Group Health Physicians in 26 primary care medical centers, six specialty centers, seven behavioral health clinics, and 14 eye care clinics. Group Health Physicians surgeons and hospitalists serve as medical staff in major Washington hospitals and care for Group Health members in several contracted nursing facilities and rehabilitation centers. Group Health Cooperative also maintains a health plan network of 6,000 community-based providers who care for approximately 200,000 Group Health members.

Group Health has spent the last seven years working on systemic changes.

Group Health's consolidated operating revenue is more than $2.8 billion. The group provides 1.4 million patient encounters annually, 30% of which are conducted through virtual medicine (secure messaging between physician and patient). The health system employs 9,300 (7,500 FTEs) including 1,700 nurses, representing 34 specialties and certifications. Group Health has a robust and fully integrated electronic medical record that has been operational since 2003.

Group Health Physicians is supported by Group Health Research Institute, which is largely funded by federal agencies such as the National Institutes of Health and the Centers for Disease Control and Prevention, along with non-federal grants and funding from Group Health Cooperative. This research organization plays a key role in measuring and publishing performance outcomes in the areas of cost, quality, service, and satisfaction at the patient level. The Group Health Foundation plays an active role in improving the system of care within Group Health and in Washington's communities. Besides philanthropic endeavors, the Group Health Foundation supports clinical leadership development and innovation projects with the potential to improve patient care while reducing costs.

Group Health has spent the last seven years working on systemic changes. The aim: bringing greater value to patients by reducing cost as a barrier to high-quality care. This transformational work has focused on aligned incentives along the full continuum of care. Medical management principles shape the Group Health Physicians culture, and the patient is at the center of the delivery system.

Leaders and clinicians are involved in designing and reforming the model of care, engaging in rapid process improvement projects to reduce waste, improve quality, and reduce costs. Lean management tools support improvement work by enabling groups to share and coordinate their performance measurement. At clinic, service line, and care team levels, daily management and work measurement systems ensure continued momentum by recognizing successes and tracking performance gaps.

Whole-Practice Transformation

Group Health's whole-practice transformation began with its primary care base. Patients paneled in the group practice (413,000 patients as of December 2010) have a personal care physician and are situated in a patient-centered medical home. Principles and practices used in the primary care medical home—such as proactive outreach and follow-up—now extend to specialty care and other settings.

Group Health coordinates its patients' care through sickness and wellness and through all settings: urgent care, specialty services, hospital settings, home care, and everything in between. The goal is to ensure patients receive "the right care, at the right time, at the right place, at the right cost."

Through efforts to manage patients through all stages and all settings, Group Health has:

- Implemented the medical home model at all 26 primary care sites, resulting in a net savings of $10 per member per month (pmpm)
- Engaged patients to share in decision making and to access care via multiple channels, including

virtual visits, secure messaging, guided care, case management, and 24/7 access

- Adopted sophisticated performance metrics at the patient population level to measure quality, cost, and satisfaction outcomes of the value stream redesign
- Reduced emergency department visits and unnecessary hospitalizations, resulting in an average savings of $6.5 million per month
- Implemented a robust and fully integrated electronic medical record, thus enhancing patient access, supporting clinician collaboration, and extending the reach of their care teams
- Vertically integrated the medical group and financing system to improve the cost/quality value proposition
- Expanded the delivery model to community partners

Key transformative elements of the delivery system redesign:

Primary Care

- A personal care physician and a personal care plan for each patient paneled in a Group Health medical center
- A patient-centered medical home model in each primary care medical center
- Virtual medicine featuring secure e-mail and telephone access
- 24/7 patient access to a care team including consultative nurses and physicians

Specialty Care

- Shared decision making with patients for specific preference-sensitive conditions, resulting in higher patient satisfaction and improved outcomes
- Delivery system redesign for specialty care, behavioral health, lab, imaging, and pharmacy

Coordination of Care

- Specialty consult pools that provide feedback to primary care physicians in real time
- Extensive patient outreach, case management, and care management

Transitions of Care

- Emergency department/hospital initiative that has lowered readmission trends, reduced average length of stay, and improved patient satisfaction
- Skilled nursing facility (SNF) placement coordination, resulting in reduced hospital days

The medical group's clinicians serve as the most important internal change driver for delivery system reform.

Internal and External Change Drivers

The medical group's clinicians serve as the most important internal change driver for delivery system reform. Between 2002 and 2006 they implemented a series of changes to their delivery system in an attempt to enhance efficiency and patient access to care. These included providing same-day appointments and direct access to specialists, and implementing an electronic medical record with a web portal for patient information access. While these changes succeeded in improving patient access, primary care physicians reported unsustainable workloads, challenging the organization's ability to recruit and retain quality physicians. So, in 2006 the leadership team launched a two-year pilot (January 2007 – December 2008) of a patient-centered medical home model, which was subsequently expanded to all primary care medical centers.

A second internal change driver was the realization that simply providing better value to patients within Group Health would not achieve strategic goals. Patients are also seen by other medical groups and physicians in the community. Group Health recognized the need to organize its delivery system around the patient and partner with the community. One example is the Emergency Department-Hospital Integration initiative (EDHI), which has reduced hospital admissions and average length of stay due to tighter coordination from intake to discharge, and through care setting transitions. Another example is providing community physicians with tools such as quality and utilization data, tools for shared decision making with patients, and decision support data and tools to help clinicians reduce unnecessary high-end imaging orders.

External drivers include:

- Changes in the legal and regulatory environment that steer organizations toward coordinated, integrated, and accountable models of care
- Changes in the financing of health care to include consumer-directed plans and pay-for-value plans
- Patients and purchasers who increasingly want to transparently see the costs quality and service value of what they are buying
- Changes in patient demographics including an aging population and more patients with multiple, chronic conditions requiring personalized care plans, guided care, and patient activation
- The steep upward trend in the costs of care delivered to patients outside of Group Health's medical centers and facilities, which prompted the organization to extend key elements of its delivery system redesign to the physicians, medical offices, and hospitals with whom it contracts

Integration of IOM Aims into Mission and Corporate Strategies

Group Health Physicians' overarching goal is to provide patients with quality, personalized, coordinated medical care in a group practice that is professionally satisfying. Group Health's overall strategic plan demonstrates commitment to the IOM aims of safe, effective, patient-centered, timely, efficient, and equitable health care, and its strategies and goals support continuous improvement and innovation to support IOM aims.

Key elements of the Group Health strategy are:

- **Improve Community Health and Lead Quality Outcomes:** Deliver high-quality, personalized care; optimize access and value; engage patients in their health; develop performance metrics and educate others on quality outcomes, content of care, and healthy living and wellness
- **Engage Clinicians:** Engage clinicians in delivery system redesign; and ensure clinicians have the right tools and support to care for their patient population and manage continuity of care and care transitions
- **Remove Affordability as a Barrier to High Quality:** Use Group Health's integrated system of care and coverage to optimize care financing, operational investments, and delivery, impacting the quality of the experience each patient gets for each dollar spent on care
- **Extend the Network of Care to the Community:** Share evidence-based guidelines, population-based research findings, and best practices for quality care with community partners so they can achieve better outcomes for our patient population

Management Principles

To align the organization, Group Health Physicians adopted the following medical management principles:

- The integrated delivery system and ability to coordinate all aspects of the care and service experience are our differentiating factors. We will leverage these attributes to assure we attain better outcomes and lower costs.
- We strive for every patient to have a personal care physician, trained in a primary care specialty. We believe that this model of care leads to better outcomes, is inherently less expensive, and is more likely to meet patient expectations.
- The role of the personal care physician is to engage in continuous healing relationships with patients (beyond treatment of acute and chronic illness, management of injuries, and provision of preventive care).
- Efficient, high-quality, and patient-centered care must be delivered as a system property rather than based on individual heroic efforts. To that end, the entire enterprise is accountable in supporting these outcomes.
- Specialty physicians provide expert consultation and treatment of our patients in accordance with explicit expectations and in support of the patient-personal care physician model.
- Access to care is a key quality of our delivery system and is provided through multiple channels. Our patients will help us define what is required by virtue of their expectations.
- Population management and chronic disease management will be provided as system properties and will be integrated seamlessly. into our entire system of care. We embrace scientific rigor and evidence-based principles in care delivery.

The Biggest Challenge

The group's biggest challenge was changing organizational culture from a focus on episodic face-to-face visits to fully embracing virtual medicine and coordination of care for a patient population. Even though Group Health had some of the elements in place for a medical home (i.e., EMR and web portal), the change to practicing in a virtual environment across all continuums of care required reducing variation in clinical work, changing the physician-patient visit, and some clarifying of new work expectations for clinicians and all team members. Physicians expressed concerns regarding standardized work and worried that virtual medicine would depersonalize the physician-patient relationship. Staff were uncertain about a change in work delegation and work tasks. Group Health has overcome many of these hurdles and is making good progress in the redesign of the patient value stream to improve quality and reduce costs.

The Most Critical Change

The transition to an electronic medical record gave the group the information infrastructure needed to transform the delivery system. The EMR revolutionized patient interactions and permitted caregivers to use virtual visits and secure messaging. The group aggressively marketed its web portal, encouraging patients to submit secure messages to their care teams and to access and contribute to their online records. Today, 30% of patient encounters are conducted via secure messaging.

Notably, Group Health did not simply replace a hard copy chart with an electronic version. Instead, it implemented improvements in the delivery system during the same time that the EMR was being implemented. Leaders and clinicians defined a new model of care and tailored the EMR to support it.

Leadership

Group Health's strategic plan lays out four key elements to achieve its mission. Specific action plans required to achieve these goals have been articulated. Examples of the

linkages between strategy and goals are provided below.

Goal 1: Improve Community Health and Lead Quality Outcomes

Group Health Physicians seeks to be the best in clinical quality in the state and in the 90th percentile nationally. Through excellent clinical care and coordination, patients will experience a trusted partnership, easy access to information, and an engagement in their own care plan that will drive best-in-state healthcare outcomes and patient loyalties.

Key Elements of the Action Plan

1. Develop personalized health and treatment plans.
2. Continue establishing and implementing the Medical Home Model and report quantifiable outcomes. Build quality goals into standard care processes.
3. Enhance continuity of care across the continuum of care.
4. Evaluate content of care for select diagnoses and analyze clinical variation to determine opportunities to reduce variation through best practice adoption.
5. Expand patient access methods to include telephone visits, case management, e-consults, secure messaging, and online patient records. Evaluate the impact of these access methods via patient focus groups, chart reviews, physician focus groups, and care team reports.
6. Publish quality/cost metrics on a patient population basis—to care teams, patients, and the community.

Goal 2: Engage Clinicians

Develop an exciting, performance-driven culture that attracts and retains the best clinicians and support staff to the integrated delivery system.

Key Elements of the Action Plan

1. Develop a physician recruitment and retention plan to expand the clinical base for each service line and each location. This to include recognition of specific specialties needed to meet patient access demand, while ensuring optimal work/life balance.
2. Conduct workforce planning by specialty, delineating the details needed to understand changing clinician supply and/or patient demand.
3. Re-visit the performance management process of physicians and staff to ensure heightened focus on group practice, teamwork, joint accountability, proactive patient-centered care, and positive customer interactions.
4. Create incentives for integration, best practice processes, and teamwork.
5. Create differentiation strategy relative to recruitment of physicians and staff to include easily identified values of the organization.
6. Create a practice and leadership development department to provide a comprehensive, three-year onboarding program for new clinicians and a mandatory one-year leadership development series for new and existing leaders.

Goal 3: Remove Affordability as a Barrier

Leverage vertical integration and economies of scale to lower costs and remove affordability as a barrier to patient care.

Key Elements of the Action Plan

1. Conduct focused value stream work to ensure competitive offerings and efficient infrastructure to manage these streams to optimize revenue and service performance.
2. Organize around categories of care: wellness, chronic care, and acute care to ensure consistent, systematic processes that meet patient demand and ensure continuity of care.
3. Conduct Lean training for leaders and medical directors, with specific measurable goals and objectives defined, and results communicated at established intervals.

Goal 4: Extend the Network of Care

Group Health grew membership and the amount of care given in its group practice to create overall enterprise growth. At the same time, the organization maintained choices for purchasers and consumers.

Key Elements of the Action Plan

1. Develop products with different benefit plans and features with varying co-pays and incentives and systematically evaluate to ensure they function to support overall strategy.
2. Develop regional service delivery planning based on medical management principles, formalize geographic distribution strategies, contract with external payers, and foster clinical integration.
3. Extend the delivery system and leverage organization-wide growth through diversification of health plan offerings, examination of cost allocation, creation of community partnerships, influence of clinical decisions, and diversified revenue streams.

Implementation Plan

Group Health has completed or is in the process of redesigning 54 separate strategic work streams. See "Implementation Timeline of Key Work Streams."

How Group Health Measures Success

Success is defined as how Group Health performs in clinical quality, service to patients and staff, and costs for patients and purchasers. Success is measured through:

- Industry survey instruments, including the Ambulatory Care Experiences Survey, Patient Assessment of Chronic Illness Care Survey, and Maslach Burnout Inventory, administered to patients, clinicians, and clinical staff to assess their experiences and satisfaction
- Clinical quality measures including 22 Healthcare Effectiveness Data and Information Set (HE-

Implementation Timeline of Key Work Streams

Year	Work Stream
2003–2005	Aligned Incentives–Financing and Delivery System Incentive Plan–Leaders and Clinicians EHR Implementation Small Point Improvements in Pharmacy & Laboratory through Lean Cross-Functional Rapid Cycle Improvement Workgroups Patient Online Portal
2006	Medical Home Planning
2007	Medical Home Demonstration Project Strategic Planning Process to Engage Entire Organization in Capturing and Cementing Goals Strategic Deployment and Identification of Value Streams
2008	First Year of Medical Home Demonstration Project Completed Intensive Training of Lean to Top 120 Leaders; Downstream Training Enterprise Value Stream Mapping
2009	Shared Decision Making for Patient-Sensitive Conditions Emergency Department/Hospital Inpatient Initiative Skilled Nursing Facility Placement Coordination Standardize Work for Each Element of Medical Home Model by Role, Develop and Test Toolkits, Institute in 3 Pilot Sites Reduce Variation of High-end Imaging Reduce Variation in End-of-Life/Palliative Care Extend Medical Home to All 26 Primary Care Sites (completed in early 2010)
2010	Extend High-end Imaging and Shared Decision Making to Community Partners Extend Emergency Department/Hospital Inpatient Initiative to 7 Hospital Partners

DIS) indicators, aggregated to four composites with the patient as the unit of analysis

- Utilization rates including emergency room and admission rates, continuity of care with a single clinician, face-to-face visits, group visits, self-management workshops, secure message threads, and telephone encounters
- Costs associated with changes to the delivery model pmpm and overall for the patient population
- Process components of care, such as the extent of pre-visit outreach to patients and post-emergency department follow-up efforts with patients

Visual displays in each care team work area show process and outcomes measures in comparison to targets and trends over time.

Evaluating the Medical Home Model

The impact of Group Health Physicians' medical home model was measured against controls. To gauge patient experience, a sample of 1,232 patients was surveyed at the medical home prototype clinic and two control clinics at baseline. Patients at the prototype clinic were resurveyed at 12 months and 24 months. For clinician burnout, the total population of staff with clinical responsibilities (physicians and non-physicians) was surveyed at the medical home and 2 control clinics at baseline, 12 months and 24 months. For quality, utilization, and cost outcomes, the universe of continuously enrolled and eligible patients were included at the medical home clinic, and 19 of our other primary care clinics. The Table 1 summarizes the performance metrics, data methods, and results for our medical home model.

External Performance Measures

Group Health also utilizes external measurements to gauge their success in quality of care.

Recent recognition includes:

- The American Medical Group Association (AMGA) recently awarded Group Health Physicians its 2010 Acclaim Award.
- Group Health Medical Centers Recognized Nationally for Medical Home NCQA's Physician Practice Connections—Patient-Centered Medical Home program awarded our 26 Group Health medical centers for the vital role Group Health clinicians and clinical practices play in delivering high-quality, patient-centered care that's built on nationally recognized clinical standards.
- Group Health Medical Centers have been rated "better than regional average" in 13 out of 19 quality measures in the 2010 Puget Sound Health Alliance Community Checkup.
- Group Health's commercial health plan was ranked No. 48 in the National Committee for Quality Assurance (NCQA) Health Insurance Plan Rankings for 2010-2011-Private. It is the highest ranked commercial health plan in Washington state, and the only plan in the state to make NCQA's top 50.
- Group Health is the 11th highest ranked Medicare plan in the country, according to the NCQA Health Insurance Plan Rankings 2010-2011-Medicare. This marks the third year it has been among

Representatives from Group Health accepting the 2010 Acclaim Award. Back Row (left to right): Marc West, Executive Vice President; Robert (Bob) Riggs, M.D., Board Member; Steve Tarnoff, M.D.; James Hereford, Executive Vice President; Michael Soman, M.D., GHP President & Chief Medical Executive. Front Row: Paul Flugstad, M.D., Board Chair; Jill Allen, M.D., Board Member; Barbara Detering, M.D., Board Member; Laurie Kutschia, VP Human Resources; and Angela Parks.

Group Health's Medical Home Difference

Before: Short appointments, often not long enough for managing complicated conditions.

After: Appointments can be extended up to 30 minutes, giving patient and doctor time to fully discuss treatment, from diet and exercise to medications and lifestyle.

Before: No time for doctors to talk to patients on the phone. Calls are answered by a receptionist or nurse. Doctors return calls when they can. Medical problems may worsen before the doctor calls back, sometimes leading to urgent care or emergency room visits.

After: Many physicians answer their own phone at specific times or return calls the same day. Medical issues are addressed before they get worse. Many calls are directly answered by a nurse, avoiding extra message taking. Doctors, nurses, or other staff may call or e-mail to encourage preventive measures.

Before: Pharmacists are not very active in patient care and don't have a significant relationship with patients.

After: Pharmacists engage with patients, managing side effects or dosage changes. Thanks to this closer relationship, they're more likely to call or e-mail patients to discuss lab results, prescriptions, and care.

Before: Variation in how and when patients are reminded of preventive care measures.

After: Processes in place to consistently notify patients of needed care, such as immunizations, disease screenings, tests for patients with diabetes, or prostate tests.

Before: Physicians feel overloaded with a large patient population to care for. Patients may not be seen by the medical team most familiar with their care.

After: Physicians care for 22 percent fewer patients. Patients are much more likely to get a same-day appointment with a member of their regular care team.

the top 15 plans in the country.

- The 2010 results from eValue8, a purchaser-led assessment of health plans, shows Group Health is the highest-ranking plan in the region, for six of seven categories, including Pharmaceutical Management, Behavioral Health, Prevention, and Chronic Disease Management.
- Agency for Healthcare Research and Quality: Recognition for innovations in online services to improve quality health
- Washington State Medical Association Patient Safety Award
- SDI–Innovation in Health Care Analytics Award, 2009 – Top 100 Integrated Health Networks: Ranked 10th in the West and 44th in the nation

Results

Between 2008 and 2009 Group Health achieved 10% growth in the patient population due to enhanced reputation backed by regional and national quality rankings; cost controls that allow it to price high-quality care competitively; and enhanced marketing efforts.

Patient Experience

Patient experience surveys are administered quarterly and overall scores have continued to increase. In Quarter 1 of 2008, the average score for all service lines was 81.63%. Surveys conducted during the third quarter of 2009 yielded an average score of 83.46%, an increase of 2.24%. Surveys also indicate that Group Health patients are increasingly engaged in their care. Patient engagement scores for the primary care service line increased by 3.11% during this same period, from 80.63% to 83.14%.

Cost Reduction

Medical expense trends 1/3 of national average: Group Health medical expense trend in 2010 was 2.6 percent compared to more than 8 percent nationally.

Hospital days reduced by 10 percent in 2010: Through the combined efforts of the medical home and Emergency Department/ Hospital Initiative, Group Health saved $51 million through a reduction in hospital days in 2010.

Improved Patient Engagement

Thirty percent of the group's outpatient encounters are conducted by secure messaging. To date, 58% of the organization's adult patients have registered for online patient access and 41.2 % of adult patients have

What the Research Found

The Group Health Research Institute conducted a two-year study of the Factoria Medical Home Pilot. Results of that study were published in the May 2010 issue of the journal *Health Affairs*.

The study compared the medical home prototype at Factoria to care at Group Health's other medical centers, and found that:

The quality of care was higher at Factoria; patients reported better experiences and clinicians said they felt less "burned out."

Patients had 29 percent fewer visits to the emergency room and 6 percent fewer hospitalizations, resulting in a net savings of $10 per patient per month.

Patients with chronic conditions managed them more successfully, and followed medical orders better with the aid of everyone on the medical home team.

For every dollar Group Health invested, mostly to boost staffing, it recouped $1.50.

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Diabetes Care in the Group Health Medical Home

The patient-centered medical home model that was pioneered at and is used at Group Health Medical Centers is especially well suited to working with patients with chronic conditions such as diabetes.

- Every member of the healthcare team contributes to treating the whole person.
- Doctor and patient collaboratively develop a comprehensive care plan that includes diet, exercise, and medication management, and takes other health conditions and risk factors into consideration.
- Nurses follow up with patients in person, via phone, or via e-mail to make sure patients understand their care plan.
- Pharmacists oversee *all* medications a patient might be taking, not just for diabetes.
- Medical assistants may contact diabetes patients before they come in for a visit, and make note of any tests or procedures the patient is due for.
- Dietitians meet with patients to customize diets.
- Behavioral health specialists help address depression, a common but often hidden companion to diabetes.

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used the enhanced suite of services. In the past year, 10% of enrollees reviewed medical test results online and 10% went online to request medication refills. Ninety-four percent of patients who use online access report they are satisfied or very satisfied with the portal.

Group Health Physicians utilizes educational aids in a systematic fashion to engage patients in shared decision making. When patients have conditions, like low back pain or prostate cancer, where medical science is not definitive, doctors share information regarding all the available treatment options. These options include surgery, medication, self-care, or waiting and watching.

The information helps patients clarify their preferences, weigh their options, and choose the best course for them. DVDs, booklets, and web videos are available via www.ghc.org. By December 2010, more than 8,800 decision aids had been distributed.

Based on survey instruments administered to patients who have used these aids, over 90% reported the experience of using the tool and having a discussion with their physicians as very satisfying to excellent. Preliminary data reveal that rates of some elective surgical procedures are declining as more patients choose less aggressive treatment.

Community Partnership in Delivery System Redesign

Emergency Department/Hospital Inpatient Initiative (EDHI) is a cross-functional effort to address the patient value stream through integration with community partners. The goals of EDHI are to reduce unnecessary ED utilization and costs, inpatient costs, and readmission rates, and optimize post-acute care processes. The specific innovations include hospitalists who are involved in determining location of care and coordinated transfer to skilled nursing facilities.

The group has reduced hospital admissions by 29 days per 1000 patients, and in 2010 achieved $51 million in savings (attributed to the combined work of medical home and EDHI). In addition, two years prior to this initiative, Group Health's Press Ganey scores for hospitalists on patient discharge satisfaction ranged from 55-84, with an average of 69. In the first quarter of 2010 this score increased to 97 among Group Health patients treated at Seattle's Virginia Mason Hospital, and stayed in the 90th percentiles throughout 2010, suggesting an increase in patient satisfaction as a result of this work. Hospital days waiting for skilled nursing placement have dropped from 25 to 5 per month.

The High-end Imaging (HEI) initiative is a cross-functional effort to address order variability for high-end imaging tools such as computed tomography (CT) and magnetic resonance imaging (MRI). Goals are to reduce variation in ordering patterns, ensure clinicians have decision support tools for choosing studies, improve patient care and safety, and avoid unneces-

TABLE 1

Medical Home Model (MHM): Summary of Performance Metrics, Data Methods, and Results

Catagory	Instrument	Result
Patient Experience	Ambulatory Care Experiences Survey (5 scales) Patient-assessment of Chronic Illness Care Survey (2 subscales) Sample: MHM n = 888 Controls n = 1,452	Adjusted differences for MHM compared to controls at 24 months: Ambulatory Care Experiences Survey 1. Access: +2.84 $p < 0.001$ 2. Quality of doctor-patient interaction: +1.63 $p < 0.05$ 3. Shared decision-making: +1.03 4. Coordination of care: +3.06 $p < 0.01$ 5. Helpfulness of office staff: +1.14 Patient Assessment of Chronic Illness Care Survey 1. Degree to which patients involved in own care (patient activation/involvement): +2.10 $p < 0.05$ 2. Degree to which care teams helped set and refine healthcare goals (goal setting and tailoring): +3.96 $p < 0.01$
Clinical Staff Burnout	Maslach Burnout Inventory (Health Services Version) Staff population: n = 48 (MHM and 2 control clinics)	Mean scores on Maslach Burnout scales at 24 months: 1.Mean emotional exhaustion: MHM: 12.8 Control: 25.0 $P < 0.01$ 2. Depersonalization: MHM: 2.0 Control: 4.4 $P = 0.03$ 3. Personal accomplishment: Difference is not statistically significant.
Clinical Quality (composite)	Healthcare Effectiveness Data and Information Set (HEDIS)–22 indicators aggregated to 4 composite quality measures, with the patient as the unit of analysis Population qualifying for at least one quality indicator MHM n = 4,747 Controls n = 132,330	Patients at MHM scored 20%-30% higher in 3 of 4 composites compared to controls
Utilization	Generalized linear models to adjust baseline case mix differences and estimate independent effects of medical home redesign. Patients at MHM compared to those at 19 control clinics. Comparison at 21 months due to change in accounting system Population MHM n = 7,018 Control n = 200,970	Adjusted utilization differences comparing MHM patients to controls, controlling for baseline case mix differences. 6% fewer face-to-face visits. 80% more secure messaging threads 5% more phone encounters 3% fewer in specialty care 29% fewer ER visits and urgent care visits 6% fewer inpatient admissions (all cause)
Cost	Estimated differences in pmpm comparing MHM patients to controls using identify gamma model and iterative reweighted least-squares estimation adjusted for case-mix and baseline costs. MHM compared to 19 control clinics. Comparison at 21 months due to change in accounting system MHM n = 7,018 Control n = 200,970	Adjusted cost differences comparing MHM patients to controls, controlling for baseline case mix and baseline costs $1.60 higher pmpm in primary care costs. $5.80 higher pmpm in specialty care costs. $4.00 lower pmpm in ER/ urgent care costs $14.18 lower pmpm in total inpatient costs. $10.00 lower pmpm in total patient care costs. Overall return on investment: For every $1.00 spent on MHM, return is $1.50.*
Process Change Components	Daily, weekly, and monthly tracking of standard work.	Call management Virtual medicine Chronic disease management Pre-visit preparation Patient activation Outreach cell

*Excludes cost of electronic medical records. MHM = Medical Home Model

Data sources: The Group Health Medical Home at Year Two: Cost Savings Higher Patient Satisfaction and Less Burnout for Providers. *Health Affairs*, 29:5, May 2010. Included as Appendix I; Appendix II is a case study of Group Health's Medical Home.
Patient-Centered Medical Home Demonstration: A Prospective, Quasi-Experimental Before and After Evaluation. *American Journal of Managed Care*, 15:9, September 2009.

sary costs. The group also provided clinical decision support tools to clinicians in the community who treat its patients. These tools allow providers to analyze and rank the usefulness of imaging studies they order. This creates a knowledge base of best practices, and shows where the patient population gets the best diagnostic results with image studies, and which studies are unnecessary, based on medical evidence. Images per 1,000 patients decreased 13.65% from January 2009 to January 2010 enterprise-wide.

Lessons Learned/Advice for Others

Group Health Physicians has learned many lessons from its delivery system transformation efforts, including:

- **Patient at the center.** The patient needs to be at the center of delivery system redesign. Personalized care activates patients in their health and wellness.
- **Physician leadership.** Physicians must assume a leadership role in delivery system change as they transition from episodic care to managing the healthcare needs of a patient population.
- **Primary care investment.** Learning from past mistakes, Group Health heavily invested in primary care as a base for its model. This base is essential to managing a patient population across the continuum of care.
- **Aligned incentives.** Incentives that promote collaboration across a continuum of care require alignment at the system, leader, team, and clinician levels.
- **Pay-for-value.** Long-term success requires movement away from pay-for-volume to pay-for-value. Group Health's heavy short-term investments in primary care would have been difficult to justify if the organization were not measuring the cost of the full continuum of care.
- **Common medical management.** Clinicians need to create standard work processes to reduce variation in medical management practices, thereby increasing quality and lowering costs.
- **Patient-centered EHR.** Electronic health records should be approached as a business and clinical transformational strategy, not as an IT project, and the patient should be the primary customer. It is important to embed patient engagement and virtual medicine in medical home workflows.
- **Cultural change.** A driving force is needed to shift an organization's culture. Lean practices permitted Group Health to galvanize enterprise members in redesign of strategic value streams. Lean principles practiced at each level in the organization have reduced waste and increased agility, thereby improving the value proposition for patients.

Group Health Physicians believes that its model can be readily replicated by other health systems. At the present time, the group is aligning incentives and expanding its delivery system model to the community. This model requires organizations to agree to collaborate through clinical integration, rather than compete. It requires organizations to embrace collective responsibility for the quality and cost of a patient population. It requires new linkages between the financing mechanism and the delivery system continuum. And finally, it requires a delivery system that is patient-centric and that provides expanded opportunities for patient access and activation.

Adapted from the 2010 Acclaim Award Application of Group Health submitted by Michael Soman, M.D., Group Health Physicians' president and chief medical executive.