GROUP HEALTH COOPERATIVE

A case study series on disruptive innovations within integrated health systems

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A HEALTH CARE CASE STUDY

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EXECUTIVE SUMMARY

Group Health (GH) serves 600,000 members through its health plan. It has 1,000 employed physicians, 60% of whom are specialists, with the rest in primary care. A further 9,000 clinicians in 41 hospitals are available to members through contracted providers. Its service area covers most of Washington state, with a particular concentration around greater Seattle, as well as northern Idaho. Group Health's medical group does not provide care to members of other health plans.

You don't have to own hospitals to deliver integrated care

Since the 1990s, Group Health has not owned the hospitals it serves, instead entering into long-term partnerships with hospitals in the region. Group Health estimates its costs to be 50% lower than that of ownership. Besides the financial savings, GH also avoids the conflicting incentives that arise when hospitals within a system want to protect their own revenue streams. This strategy does depend, however, on excess bed capacity in the marketplace, as well as the existence of hospital partners that have aligned outlooks on outcomes and quality.

A successful Medical Home seems impossible without integration

In a setting without a team base, the Medical Home could become an attempt to replicate too superficially what really depends on integration, simply serving as a way for primary care providers (PCPs) to carve out greater payments for themselves. The Medical Home is effective at Group Health because of the unified care teams and their shared commitment to quality.

Integrated care delivery can improve quality and reduce costs

In its controlled studies of patients in the Medical Home model, Group Health has been able to show improved HEDIS[1] results as well as lower costs, including 29% fewer emergency visits and 6% fewer hospitalizations. Though premiums for HMO products have not been lower in the past because of the costs of investing in high-touch primary care, leaders aim to be able to offer lower premiums of 5–10%.

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[1] Healthcare Effectiveness Data and Information Set (HEDIS) is a tool used by more than 90% of America's health plans to measure performance on many dimensions of care quality and service

Conventional wisdom believes HMO insurance products are low-frills and restrict care—Group Health has built the opposite kind of product

Group Health has developed a high-engagement Medical Home model, where customers may have four to five times more touch points a year than in a traditional care delivery system. Because the model emphasizes prevention and diligence in managing chronic conditions, GH is often "chasing customers down to deliver more care." Patients have to stay with the Medical Home for several years in order for this type of high-touch care to result in savings through the reduction of advanced disease and emergencies.

There are mixed views about offering Choice products alongside an integrated care product

Group Health began offering a Point of Service plan, has seen less customer resistance to these offerings, and they have been a high percentage of sales recently. Some leaders felt the purpose of offering Choice products was to introduce people to Group Health and ultimately drive them to the HMO model; others felt Point of Service plans could remain an attractive and sizable market to serve long-term.

Care delivery is treated as the crown jewel

Group Health judged the administrative burden to be too high to justify opening their medical practice to outside insurers. They also fear conflicting incentives and perceive a marketing benefit from the idea that "you can only access our doctors by signing with our plan."

Within an integrated system, EMR is essential to take full advantage of the benefits of integration

Shared health records allow care teams to have tighter coordination as well as better transitions to specialist or hospital care. It also enables the sharing of best practices through evidence-based medical guidelines, decision support tools, and care reminders that are embedded in workflows so that they are effective aids to providers and patients. The electronic medical record (EMR) also helps build and sustain a common culture within an integrated system.

Technology is key in engaging patients in their health

Technology enables Group Health to "know their patients," to be more efficient and provide greater customer satisfaction in processing test results, refills, and patient questions. Some

electronic touch points are more effective than in-patient visits with certain customer subsets. Contrary to expectations, the Medicare population served by some Group Health providers has had high uptake and is not technologically averse; if they desire high-touch or customized health care, technology is a way to do that cost-effectively.

The next substantial innovation in insurance will be products that incent members to take responsibility for their health

Group Health is experimenting with value-designed products by removing co-pays for patient care and medications associated with chronic conditions, encouraging patients to partake of increased primary care and better manage those conditions. They are also building programs to offer points and incentives so that engaging in healthy behaviors will result in rewards or premium discounts and rebates. The financial benefits of health improvement will be shared by payer, patient, and employer.

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I. BACKGROUND AND HISTORY

Formation (1945–1980)

Group Health Cooperative (GH) was formed in 1945 at a time when even the most basic therapeutic measures were expensive and inconsistently available to Americans. Its ambitious mission was to make health care more accessible, affordable, and accountable.

An animating principle behind Group Health's formation was the cooperative (co-op) movement—a style of organization focused on mutual benefit instead of profit. In the late 19th century, co-ops started to become a fashionable structure to organize productive resources; they were considered a "third way" between capitalism and communism. In the Pacific Northwest, hundreds of co-ops were organized in sectors as varied as climbing gear, telephone systems, grocery stores, farm supply companies, and funeral homes.

A pure co-op was owned by its members rather than outside investors; profits were circulated back to the people consuming the products and services the co-op produced. But in health care, consumption varied widely and often unpredictably among individuals, so Group Health was founded as a conventional non-profit corporation that involved members extensively to elect and sit on its board of directors. Its original bylaws specified that all medical decisions were to be made by physicians employed on staff; that all employees would be treated fairly and offered collective bargaining; that the greatest possible number of people would be served, without discrimination, through hospitals and medical centers of outstanding quality; and that preventive medicine would be at the core of its work. Income was to come from monthly payments from the large group of people served. The original pricing structure of a $100 membership fee per family, plus $3 a month per member, was considered expensive for the time, so membership was comprised of well-paid workers and professionals.

Group Health elicited the interest of groups such as the International Association of Machinists (IAM Lodge 751), a union at Boeing in Renton, Washington. Within months, Group Health had a strong base of paying members, but no doctors. In November 1946, it purchased Medical Security Clinic, gaining a hospital, downtown clinic, and a team of doctors that needed a new set of patients as their wartime duties ended. The new organization opened its doors on January 1, 1947.

From its original base of approximately 2,000 families in 1948, enrollment steadily grew over the decades. In 1969, enrollment exceeded 120,000 individuals and the medical staff hired its 100th doctor. Group Health added more facilities in greater Seattle, Lynnwood, and

Olympia, and faced its first growth constraint in 1972, when it had to temporarily cap membership at 173,000 people shortly after President Nixon endorsed the new concept of Health Maintenance Organizations (HMOs). By 1978, enrollment exceeded 250,000 people.

Group Health faced its first growth constraint in 1972 when it had to temporarily cap membership.

Decline and renewal (1980–2000)

Several factors conspired to strain Group Health's co-op values in the 1980s and 1990s:

- **Expenses and overhead grew.** As the medical group became loaded with "bells and whistles," the cost of providing service grew quickly. The number of staff grew while the customers aged.
- **Prices rose.** Because premiums were based on delivery costs (including overheads), the increased costs were simply passed on to employers and individuals. Group Health remained profitable, but only by increasing prices.
- **Quality slipped.** Despite its charter to focus on preventive care, Group Health had slipped into a production model of care delivery—measuring itself by the number of procedures performed, resulting in what it later saw as the same incentives and outcomes of a fee-for-service model. The quality of outside providers it selected was also not closely managed.
- **Money-saving moves backfired.** Thinking some primary care facilities looked unproductive, Group Health slimmed them down in the 1990s in an effort to improve efficiency. Vacancy rates in other parts of the system skyrocketed, and Group Health lost $80 million in a three-year period.
- **The staff rebelled.** "We had a beleaguered workforce," noted Robert V. O'Brien, Jr., now executive vice president of the Health Plan Division. He continued, "We couldn't attract or retain staff. Postings would remain unfilled for 18–24 months. It took us a decade to rebuild."

Management believed that part of their problem was not being able to offer a full palette of insurance products to an increasingly sophisticated consumer base. As a result, they formed the predecessor to Group Health Options, Inc., a wholly-owned for-profit entity designed to sell Choice plans (allowing access to any doctor or facility) that still leveraged the Group Health infrastructure. Although originally controversial within the Group Health culture, Choice products brought in badly-needed revenues, and are a major platform for growth today. Similarly, in 2005, Group Health acquired KPS Health Plans in Bremerton, which had been a doctor-

owned medical bureau. KPS had a successful preferred provider organization (PPO) insurance product, which became the basis for Group Health's new PPO offering.

Originally, some doctors resented PPO options because it appeared that Group Health was experimenting with new economic models that it forbade its doctors from trying. "Initially, there was a rupture in trust," said Brenda Bruns, MD, executive medical director, Health Plan Division. "Doctors said *'You* can fool around with different business models, but I can't cheat on this marriage,'" she recalled.

PPO products increased Group Health's exposure to the fee-for-service environment. Previously, it had to contract for care with outside providers only when members were referred for specialist treatment that was not available from Group Health doctors. PPO products led to members' greater use of doctors outside of Group Health, which made costs go up.

During the 1990s, Group Health formed two significant alliances.

During the 1990s, Group Health formed two significant alliances. The first, an alliance with Virginia Mason Hospital in 1993, was intended to unify market share and increase the prestige of both groups. The two organizations' cultural incompatibilities and different union histories, however, created some difficulties. Today, this relationship has evolved into a healthy arms-length contract, with Virginia Mason providing inpatient care facilities for Group Health doctors to treat Seattle-area members.

The second alliance, with Kaiser Permanente, the nation's largest HMO, sought the same benefits of scale and enhanced reputation for both parties. In 1997, an alliance was established, which could have eventually led to a merger. However, a severe downturn in regional demand followed, and some Group Health managers saw the collaboration as simply one more level of authority and bureaucracy. At the same time that Group Health decided to exit service in 13 counties and endure painful layoffs, they decided to unwind the Kaiser Permanente alliance, and the separation was completed in 2001.

In the new millennium, financial results improved dramatically. Instead of the $70 million in cumulative losses that Group Health had racked up between 1995 and 1999, the year 2000 saw an operating net profit of $25 million.

Another key decision in the 1990s concerned Group Health's geographic footprint. For several years, Group Health had had an independent subsidiary in eastern Washington with five medical centers in Spokane and nearby Coeur d'Alene, Idaho. Group Health debated whether to sell their subsidiary and focus only on the Puget Sound area, or to stay in a wider geographic area and improve operations. President and Chief Executive Officer Scott Armstrong said,

"A breakthrough realization for us was that we didn't have to own hospitals to deliver care."

—President and CEO Scott Armstrong

"Ultimately, we decided to keep our geographic spread, and not just hunker down to metro Seattle. Our decision was based on our commitment to changing care in communities. It required an investment in competencies. We took over the subsidiary, incorporating it within our core model, and reversed the losses. This was the most important business decision we have made in my tenure so far."

A delivery system that doesn't own a hospital (2000–present)

In the early 1990s, Group Health ran three hospitals. In fact, the reason Armstrong came to Group Health was to manage these hospitals. "Over time, we got good at lowering hospital use rates and ended up with unused capacity. A breakthrough realization for us was that we didn't have to own hospitals to deliver care," said Armstrong.

Group Health had a distinctive business model of placing its own doctors and nursing staff into partner hospitals, and buying bed space. Group Health doctors worked side by side with partner hospitals' own staff, and followed Group Health protocols and used the Group Health electronic medical record (EMR). The doctors accessed the EMR at the hospitals via Citrix and, while they could not use it for inpatient records, they used it to provide coordination and continuity with primary care. Armstrong estimated that costs in this model were 50% lower than ownership; they treated the hospital as a workshop, and the hospital treated them as a revenue center.

Some Group Health managers saw owning a hospital as "too different" from running a health plan to live within the same business model. "Hospitals are capital sinks that have to think about how to protect their revenue streams," said James Hereford, executive vice president of Group Practice. "Our motivations as an integrated health plan and provider network are precisely the opposite from the hospital; it simply works better if we are running separate organizations."

"Our model can work great in metro areas," continued Hereford. "But in one-hospital towns it can break down, since the hospital believes it would get that same patient anyway through another fee-for-service provider. If a hospital sees our model as taking revenue out of its balance sheet, they won't want to play. We have to change the power dynamic with small hospitals in small towns, because it is unsustainable for us to increase unit costs."

Today, Group Health generates $3 billion in revenues while serving 600,000 members. It has 1,000 employed physicians, 60% of whom are specialists with the rest in primary care. A further 9,000 clinicians in 41 hospitals are available to

members through contracted providers. Its service area covers most of Washington state as well as northern Idaho, with a particular concentration around greater Seattle, which has a 10% market share. Group Health's medical group does not provide care to members of other health plans.

A new care model

The dark years of financial and operating struggles made Group Health realize that their primary care model was broken. Gradually, a consensus began to form that the best primary care was rooted in preventive activity, which should not be measured in frequency of treatment events; that doctors should not be encouraged to simply maximize the number of patients or procedures, and that costs needed to be measured over a patient's lifetime and not in the context of a single visit. "We don't want to be 'efficient' like others," said Armstrong. A fundamentally new model of primary care delivery was needed, one that came to be known as Medical Home.

A consensus formed that the best primary care was rooted in preventive activity.

II. DISRUPTIVE POTENTIAL OF CURRENT SYSTEM

The Medical Home

Group Health leaders hypothesized that more investment in primary care, early, would lead to better overall outcomes. They decided to study the best emerging models in primary care to see if a completely new approach would bring better financial and clinical results.

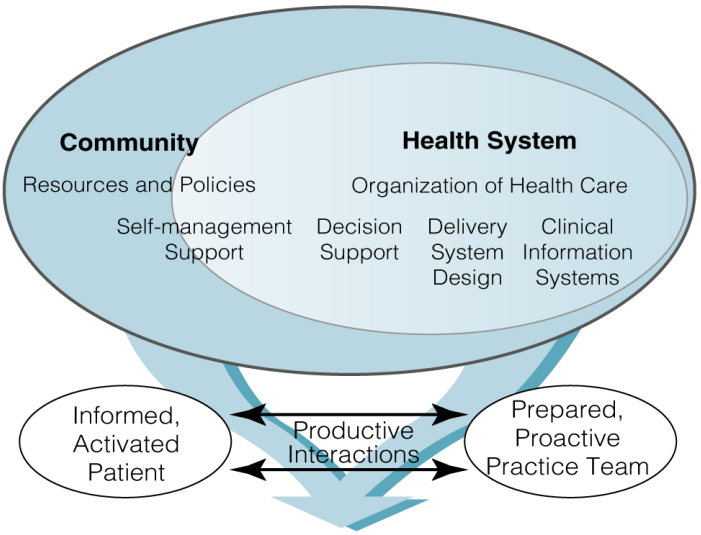
They ultimately decided to pilot the Patient-Centered Medical Home chronic care model, developed in 1998[1] by Ed Wagner, MD, the director of the MacColl Institute for Healthcare Innovation at the Group Health Research Institute (see **Figure 1**).[2]

Wagner was concerned that half of Americans have a chronic condition, defined as any condition that requires ongoing adjustments by the affected person and repeated interactions with the health care system. 50% of people with chronic conditions are affected with more than one chronic condition, with the most common being diabetes, heart disease, depression, and asthma. The need for both

[1] Group Health's prototype testing and planning for their Medical Home pilot were underway before the *Joint Principles* were released, on which most current demonstrations are based.

[2] *Chronic Disease Management: What Will It Take To Improve Care for Chronic Illness?* Edward H. Wagner, MD, MPH, *Effective Clinical Practice,* August-September 1998; 1:2–4.

Figure 1 *Chronic care model overview*



patient and medical intervention, in the context of lifetime management of the patient and co-morbid conditions, provided the inspiration to develop this model.

In 2006, Group Health designed and piloted its implementation of Medical Home in its Factoria Medical Center in Bellevue, Washington, and is now in the process of rolling it out to the rest of its facilities. Results from the pilot included:[3]

- 29% reduction in emergency room (ER) utilization
- 12% reduction in hospital admissions related to ambulatory care

Certain costs and utilizations increased:

- 2% increase in primary care cost at 21 months, representing $1.60 per member per month (PMPM)
- 3% increase in specialty utilization and 6% increase in cost ($5.80 more PMPM) after 21 months

[3] *The Group Health Medical Home At Year Two: Cost Savings, Higher Patient Satisfaction, and Less Burnout for Providers*. Robert J. Reid et. al., *Health Affairs* 29, No. 5 (2010): pp. 835–843. Figures represent 2005 inflation-adjusted US dollars.

Medical Home, as used at Group Health, relies on seven principles:

1. Use evidence-based medicine and clinical decision support tools to guide decision-making at the point of care based on patient-specific factors
2. Organize the delivery of that care according to the Chronic Care Model (CCM) but leverage the core functions of the CCM to provide enhanced care for all patients with or without a chronic condition
3. Create an integrated, coherent plan for ongoing medical care in partnership with patients and their families
4. Provide enhanced and convenient access to care, not only through face-to-face visits, but also via telephone, e-mail, and other modes of communication
5. Identify and measure key quality indicators to demonstrate continuous improvement in health status indicators for individuals and populations treated
6. Adopt and implement the use of health information technology to promote quality of care, to establish a safe environment in which to receive care, to protect the security of health information, and to promote the provision of health information exchange
7. Participate in programs that provide feedback and guidance on the overall performance of the practice and its physicians

- A measurable increase in the number of times patients were pulled into specialty care upstream of catastrophic events like congestive heart failure

In spite of increased costs for primary and specialty care, cost savings PMPM of $4.00 in reduced emergency room visits and $14.18 in fewer inpatient admissions produced an overall cost savings of $10.30. Group Health states that it received $1.50 in benefits for each dollar spent to implement the Patient-Centered Medical Home.

David McCulloch, MD, senior diabetologist, said, "Before Medical Home, most health care was acute-oriented. With fee-for-service medicine, a patient gets a procedure, and boom, he's out of there. We needed an organized system to keep chronic patients on track, and now we have it." He also pointed out the importance of integrating this information through the EMR, and embedding evidence-based medical guidelines in the workflow. A process of standardized call management enabled caregivers to maximize the usefulness of a visit.

The goal of Medical Home was not to decrease primary care visits, but to decrease hospital admissions and emergency room visits. Marc West, executive vice

president of Group Health Permanente[4], pointed out that members have to stay with Group Health for a long time in order for GH to realize the savings from this model of primary care. Early indications that Medical Home was producing very high satisfaction ratings from chronic patients made it likely that this long-term membership goal would be achieved.

The underlying care model focused on keeping patients healthy and out of emergency rooms.

Better at managing chronic care

Advocates of the Medical Home model contrasted it with disease management protocols popular in other settings. According to Medical Director of Preventive Care David Grossman, MD, "a disease management company offers to take care of a certain number of conditions for you. But payers don't always analyze what that means. First of all, this function should be done within the medical group, not at the plan level. Secondly, most disease management players ignore co-morbidity."

McCulloch added, "We made similar mistakes in the mid-1990s when we thought we needed a disease-specific program to call up people and send them letters. It turned out that we just layered those reminders onto the chaos of the patient's life! These types of programs just push information onto people, rather than really fixing the care model."

Hereford described this conceptual shift as mass customization. He asserted, "Mass customization is more important than thinking about populations with particular conditions. We should never look at a patient as 'that diabetic'—we need to optimize the care of that individual. Most patients are co-morbid. So the cardiovascular patient is often the same person as the diabetic. We need to optimize around that patient, not around a single disease."

The underlying care model, in McCulloch's view, must focus on keeping patients healthy and out of the emergency room. Important elements include reaching out proactively to the sickest subset of a patient panel, and helping patients make continuous decisions for themselves rather than just, as MuCulloch put it, "downloading data" to the medical team. For example, the physician might instruct the patient to adjust the dose of a blood pressure medication from time to time in response to their home blood pressure readings, in order to target a desired range. Readings and dosages are then reviewed and confirmed during the in-person visits.

[4] Group Health Permanente is the name of the medical group that employs all Group Health doctors and contracts exclusively with Group Health Cooperative for delivery of medical services.

"The reason patients end up with blood pressure or glucose out of range is that they are not being followed up," said McCulloch. "You need to keep interacting with them until they are on target."

"You see the true defects of the broader health system when you look at patients with multiple problems," said O'Brien. "Most other forms of health care are a disconnected mess. No one is taking responsibility. But when you bring these patients to Group Health, the effect is transformational."

Care team approach

Care within the Medical Home model was delivered by teams comprised of doctors, nurses, and medical assistants. A patient was assigned to a single care team on a long-term basis. Extensive and consistent use of the system-wide EMR provided instant access to charts and test results for all patients in the team's panel. When the patient called his doctor's office, any member of the care team was likely to pick up the phone. "Doctors sometimes answer incoming phone calls for Medical Home; it startles many patients but they remember it and love the access to their doctor. Patients do not have to fight their way up a hierarchy depending how serious their question is," said Hereford.

When the patient called his doctor's office, any member of the care team was likely to pick up the phone.

Sometimes, a very senior resource was used early in the process: "You can afford to have higher-level people doing lower-level tasks from time to time, as long as you think about the total system," said Hereford. In order to serve the Medical Home model, it sometimes made sense to underutilize highly-skilled medical staff. West's opinion was, "Physician assistants actually screen and describe problems better than many doctors do." Grossman said, "It doesn't make sense for doctors to do smoking cessation counseling; we have a team for that." Conversely, Claire Trescott, MD, medical director of primary care, noted that, "You might not need 30 years of training to do a colonoscopy, but that experience is enormously valuable during a consult."

The disruptive nature[5] of this team-based approach was enabled by the integrated care-delivery model. Services did not have to fit into standard billing codes because

[5] *Disruptive innovation* is a term coined by Harvard Business School Professor Clayton Christensen, describing changes that improve a product or service in ways that the market does not expect, typically by lowering price or designing for a different set of consumers. It contrasts with *sustaining innovation*, a process of incrementally improving existing processes in ways that only serve the interests of existing customers.

team members were compensated through salary. The balancing of tasks among team members was rooted in how patient needs could be served most effectively in each situation.

Group Health patients had three to five times as many touch points with their medical team as did patients in competing systems.

In traditional models, patient interaction had only occurred in person and over the telephone. Group Health defined a "touch point" as any interaction with the patient, including online interaction. By driving a large number of patient interactions to the Web, they dramatically increased the number of touch points per patient per year. Michael Erikson, vice president, primary care services, estimated that Group Health patients had three to five times as many touch points with their medical team as patients in competing systems did. All of this additional interaction occurred through the Internet and telephone, while the number of in-person interactions had not dropped.

Call management

The call management system included a carefully planned boarding process for Medical Home. The first step was an outreach call from a customer service representative to the new patient, describing the services they were about to receive and how Medical Home worked. A team was assigned, drugs were transferred from the previous provider, Web site logins were established to the MyGroupHealth patient portal, and initial questions were answered.

During the typical first visit, the doctor explained and introduced the care team and discussed after-hours coverage and acute care options that were more convenient than the ER. When the new patient contacted other parts of Group Health, such as the pharmacy, consistent scripts were in place to collect any missing information and provide an almost identical experience to the patient no matter what department they called; the pharmacy would give them the same response that their care team would.

Typically, a patient could get questions answered during a single phone call to his or her team, and when that was not possible, an answer was usually received by the end of the day. Use of phone and e-mail increased beyond initial expectations. Doctors with up to 30% of their patients being covered by Medicare convinced many to use secure online messaging and to leverage the skilled nursing team whenever possible; the result, according to Erikson, reduced in-person visits amongst the sub-population of Medicare patients by 50% while producing the same satisfaction ratings and outcomes.

McCulloch believed the standardized call management system was critical, even though it initially triggered pushback from some independent clinicians. "Because the process is well-organized, it is much more efficient. Doctors can spend much more time speaking with the patient. In the old days, I would spend the first 15 minutes of a 20-minute visit flicking through the chart to gather information. But now I can immediately start to analyze all the things that the patient and I need to consider," he said.

Shared decision-making

The value of informed, shared decision-making was integral to Medical Home. Primary care doctors and specialists were both trained in the new approach. Many decisions about individual care were made by the patient and doctor together, with both having responsibility. For example, a patient experiencing knee pain would discuss options with their doctor and also be sent home with an education tape on that subject describing the pros and cons of surgery. "Our culture is to take pride in avoiding unnecessary procedures," said Bruns. Providers were seeing results that were consistent with decreasing event rates, and are hoping to have publishable data within the next year.

"Our surgeons are willing to tell patients that surgery is not the right answer to everything," noted Armstrong. When a patient and their doctor decided to avoid invasive treatment for the right reasons, those resources could then be deployed elsewhere.

"The way we implement shared decision-making is a great example of how our culture fosters openness," said Jill Ostrem, vice president, specialty and acute care. "We make sure clinicians know that 'we will create time in your practice, doctor, for you to do this.'"

How much decision-making can be entrusted to patients? Eric Larson, MD, executive director of the Group Health Research Institute thought the answer was most of it. "As a doctor, I don't see why I shouldn't be able to trust my patients to process the huge ads on the Super Bowl with skepticism. We are living in a world where people are bombarded by every conceivable kind of information, including medical information, and have to make important decisions. Within Medical Home, we are trying to provide precisely the environment where this information becomes empowering, not enslaving, and individuals take part more and more."

The value of informed, shared decision-making was integral to Medical Home.

Lean management

Lean management techniques were an enabling step to innovation. Group Health used Lean teams to remove a lot of administrative waste in areas such as claims. "We now process claims very effectively and reduce rework," said Hereford. "At this point we can grow 15–20% in claims volume without having to add a single new employee, because of the capacity we freed up. When we have complete automation, there will be opportunities for 50–75% in cost reductions from staffing revenue cycle management."

Group Health shared a focus on lean management with Virginia Mason and Overlake Hospitals. "We have a very tight integration of our supply chain with both institutions, and all of us are focused on lean management techniques. They have relationships with other payers to get paid for quality and higher value, which illustrates their cultural compatibility with us too," Hereford said.

"When we tried to squeeze primary care years ago, we had to spend almost $50 million later to fix those problems. So we know Lean is not just about cost reduction; it also involves investment," said Trescott. "As we are implementing Medical Home, we are spending $10 million and expecting a $45–$50 million reduction in overall costs. A 450% ROI is dramatic."

Michael Erikson, vice president, primary care services, believed that every one of the most recent 40 doctors to join Group Health joined because of the Medical Home model.

Physician commitment

There is consistent support and genuine enthusiasm among many employees for the Group Health employment model. Group Health had a 3% turnover last year and a high level of interest in open positions.

Michael Soman, MD, president and chief medical executive of Group Health Permanente, said, "In the last several years, we have simply entered the stratosphere in terms of attractiveness to physicians. We have 12 highly qualified applicants for every opening—a level unheard of in this region. We are seeing increased interest in the specialties and from academics, as well."

Erikson believed that every one of the most recent 40 doctors to join Group Health joined because of the Medical Home model. "It reminds them why they went into medicine," he said. "They see that this structure enables the primary care practice to view and influence issues across populations, give incentives for good behavior, and pay for chronic care properly."

"Doctors get it," Soman concurred. "They realize they get to work in a top place, where they can take good care of the patient, and think less about some of the business aspects. And, they can be part of a system with coordination and

integration and EMR, surrounded by people who think about quality, which is phenomenal and works better than other systems. They feel the pride." "Many doctors are looking for stability, rather than absolute income maximization," noted West. "Our model offers that; we give doctors a better opportunity to practice great medicine and live a balanced life."

"My parents are in their 90s in Portland, and had trouble getting the right kind of care," said Larson. "What caused me to leave another job to come here is that I saw that older patients with complex illnesses got great care, and didn't even have to work at it. We are showing that when we apply the right kind of incentives, and pull away from the fee-for-service/service line mentality that you see at a traditional medical center, we get superb outcomes."

Salaries for Group Health care providers were competitive in the market. 10% of salary was available as a bonus, which was based equally on quality, patient satisfaction, and productivity (which takes account of secure messaging and phone time). No part of base salary was at risk, however, which was a change from their previous model, regarded as having been too focused on volume and productivity. "Our current level of financial incentive seems to be enough. Incentive payments are not the sole reason doctors do things," remarked Erikson.

Group Health employees believed some metrics—probably most—should be shared widely within the organization, but they had not instituted public rankings of physician quality by group or individual. Matt Handley, MD, associate medical director, quality and informatics, said, "Early on, we had shared internal quality metrics by individual. Then we moved to anonymity, referring to 'Dr. ABC.' Now we are open again, but not outside the organization. We felt some metrics are too sensitive to a handful of the sickest patients in a population. Peer pressure is good. And we provide small payment incentives to encourage good metrics. But naming and shaming doctors could make them fire a handful of their sickest patients to rise in the rankings, and we don't want to give them any reason to do that."

Optimizing the role of specialists

"I think the most important reason specialists come to work here is that we can create decent call structures that promote a healthy work-life balance that is impossible in independent practice," said Ostrem. "Our intention is to offer comparable pay to the outside market, and even though that pay is based on salary rather than activity, there are opportunities for doctors to do extra work for extra pay if they want. Add to this our infrastructure for virtual work, which allows specialists to have a very

wide and very deep impact across our membership base, and I am not surprised that we have the satisfied specialist base that we do."

Leveraging scarce specialist resources through virtual consults substantially reduced delays in service.

In the interest of efficiency, speed, and delivery of optimal quality of care, Group Health frequently used "virtual consults." In a virtual consult, the primary care doctor can reach an on-call nephrologist on the phone, for example, and discuss a patient's case with the patient still in the room. Both doctors can view the same images, records, and test results together in the EMR. Group Health's endocrinology and allergy consults particularly relied on virtual work. Related communications with patients through secured messaging prevented some unnecessary visits, and aided preparation for others. Meeting critical community needs for scarce specialist resources through virtual consults substantially reduced delays in service. Many GH employees expressed skepticism that a fee-for-service model could produce similar results because of the difficulty of billing for a virtual consult.

As one example, 75% of behavioral health treatment at Group Health occurred in the primary care setting, in contrast to other fee-for-service care delivery systems. "We are not jealous of other doctors doing our work," said Michael Quirk, Ph.D., director of behavioral health services. "We want to meet the patient need in the most efficient way. In an integrated system, we can get our arms around long-term goals that would be impossible otherwise." Shifting all but 25% of the activity away from specialists made more effective use of the specialist resource while delivering better outcomes. A psychiatrist was assigned to carry the "mind phone," being on call to answer questions about issues such as psychotropic drugs. A family doctor or a psychotherapist could call the psychiatrist anytime. General practitioners (GPs) did refer outside of the system for certain mental health conditions, and in certain regions without sufficient mental health professionals within Group Health. Quirk estimated that 50% of mental health care was provided by the medical group, 45% by the network, and 5% overlapping. But he emphasized, "The more severely ill the patient is, the better *our* team-based approach is for them. We have GPs, psychiatrists, and psychologists all meeting together, working together, and able to coordinate off of a shared medical record. So we want to make sure as many as possible of such patients get referrals into docs in our system instead of into the network."

Another objective for behavioral health was to reduce unmet needs. "We can still improve our access to psychiatrists," said Quirk. "We estimate that 25% of our membership will have a mental health or chemical dependency event this year but they may not reach out to us." The group saw an average of 7% of members each year. Group Health added screening questions to parts of their EMR to

Figure 2 *Optimization in cardiology visit rate in an integrated model*

	Benchmark	Group Health
Cardiology visits per year per 1,000 members age 65+	1,059	214

flag at-risk patients and increase the treatment rate. Currently, 80% of requested behavioral health appointments were seen within one week, and the wait almost never exceeded two weeks.

There were broader efforts underway to optimize the specialist role at Group Health. Ostrem pointed to Group Health initiatives in place to improve the processes for their 500 specialist physicians to engage with primary care teams more reliably. "We are encouraging actions like clear and timely instructions to patients, and jointly-created medical treatment plans, to draw the specialists closer," she said.

For certain specialties, the actual quantity and type of care delivered within Group Health could differ from the market (see **Figure 2**). "Our dermatologists look and work very much like they do in the community, but our care model is fundamentally different for cardiology," said Ostrem. "For example, we have a much lower ratio of interventional events versus office visits than is typical. We don't do a stress test six to eight weeks after surgery because there is no clinical evidence that it helps. We save that cost, and hand patients back to primary care more quickly. The differences are enormous, because we have an optimized care model…if you compare our Medicare cardiology visits per thousand patients to the market, we are at around one-third the rate of the market. And we still have room to improve."[6]

Reducing readmission rates

In recent years, Group Health reduced its readmission rate from 18% to 12%.

Nationally, 22% of Medicare discharges result in a readmission, and recent policy changes at Medicare cut reimbursement for readmitted patients; the issue has therefore become an important cost lever as well as a key quality indicator. The

[6] Figure is based on Group Health internal data for the one-year period ending October 2009. Benchmark data is a national average calculated by ECG Management Consultants, Inc., in 2009.

template for Group Health's improved process was developed in a pilot at Virginia Mason Hospital, and centers on three steps:

1. Before discharge, an appointment is scheduled with the patient's primary care provider
2. At discharge, the patient is sent out with a full set of medications and instructions on how to take them
3. The patient is called at home at the 48-hour mark to check on them

This process is now being rolled out to 10 hospitals that Group Health partnered with, the aim being to drive readmission rates below 10%. Armstrong estimated this new level would save $40 million per year compared to their original baseline.

Delivering value through other innovations

Value, rather than activity, was repeatedly described as "the coin of the realm" by many Group Health staff members. Activity that did not lead to improved outcomes was defined as "waste" and in some cases was derided as "hamster-wheel medicine." The organization used both of the levers for increasing value: reducing unnecessary activity and making delivered activity as effective as possible.

Examples of how Group Health has attempted to increase value through its integrated model are below:

- **Smoking cessation**. Washington state has a 15.3% overall rate of smoking, but only 11.5%[7] of Group Health members smoke today and that rate continues to fall. "Within the EMR, we standardize questions about tobacco use—these questions come right after height and weight," said O'Brien. The doctor's responsibility in this case is to ask, advise, and refer suitable patients to Group Health's smoking cessation program, which is called Free and Clear. This program was developed in the 1980s and is based primarily around telephone counseling. The program was spun off as an independent non-profit company in the late 1990s and is available to other health care organizations and employers across the country.
- **Screening for diabetic retinopathy**. Diabetics are at increased risk of retinopathy, yet screening for this condition is comparatively rare. The

[7] Smoking cessation data for Washington state and Group Health provided by David Grossman at Group Health.

ophthalmologists at Group Health came up with the idea of putting high-resolution cameras in the lab and training lab technicians to operate them. Now, when patients get blood taken, the technician also takes a picture of their retinas and sends it to the ophthalmologist without the need for a separate appointment.

- **Improving FluMist vaccination rates**. Laura Rehrmann, president, Group Health Foundation, pointed out that sometimes an experiment to deliver better care did not work. "We were interested to measure if the availability of FluMist inhalable vaccine would reduce parental anxiety and result in greater total vaccination rates. In contrast to our expectation, the answer was 'no.' First, mothers didn't want to have to teach kids to inhale a vaccine; a shot was simply easier. Also, there was anxiety among some parents about using a live vaccine so close to the brain. So, although we were prepared to bear the increased cost of inhalable vaccine if it significantly improved outcomes, it didn't, and injectable flu vaccines remain our primary option."
- **Group purchasing of vaccines**. Until 2009, the State of Washington operated a group purchasing and distribution system for all children's vaccines in the state, in order to take advantage of quantity discounts. The state program was discontinued due to funding constraints, and no remaining player had enough volume to negotiate similar discounts. Group Health initiated a substitute program to purchase vaccines in advance and got most other providers and health plans in the region to cooperate, reducing costs for all.

Reducing practice variation required more standardization across locations.

Reducing practice variation

Undesirable practice variation occurred when different care would be delivered to the same patient depending on where that patient was treated. "Reducing unnecessary practice variation is very important to us," Bruns said. "Sometimes doctors do too much: if they have poor communication skills, or simply 'know best,' or do not have the support of colleagues, or fear malpractice, or if they would simply feel terrible if consequences resulted from inaction. And if they have a poor support system, the default is 'action.'"

"Reducing practice variation required standardizing across our locations more," noted McCulloch. "For years, we had a structure in place to share best practice, but

people got complacent. So we had 27 different primary care clinics scattered across the state and they were superficially similar, but quirkily different. How they used receptionists, how they used medical assistants, how they put patients in rooms, were not different in constructive, experimental ways; they were simply arbitrarily different. So we couldn't just turn a key and spread and embed the best patient-based care techniques."

"For many years, absent data, the debate about whether we had unwarranted or unintended clinical variation was simply 'we don't.' But it was just opinion," said Soman. "Three years ago, I sponsored a project to apply the Dartmouth Atlas methodology against our population, and it turns out that we do have that variation. Suddenly, the debate was over and we could analyze what to do about it."

Group Health addressed the issue in two ways:

- **Set the baseline**. As a comprehensive source of structured information, the EMR provided a conduit for all doctors to generate and share best practices.
- **Spotlight the variations**. Where wide variations in practice occur—for example, use of advanced imaging techniques—Group Health highlighted the differences to each involved practitioner. Instead of requiring prior authorization, they simply made transparent which doctors were ordering four times as many images as other doctors, indicating that the target was to bring the biggest users down one quartile.

Group Health tried to standardize care in urological surgery, because data showed a three-to-four-fold variation in blood loss among surgeons, and some operations were taking three times longer than others. Larson commented, "When I worked in a fee-for-service model, I had no reason to care about that type of issue, except for professional work ethics and a general desire to preserve resources. But here at Group Health, we have the right incentives to reduce waste that does not lead to better care."

In recent years, Group Health noticed an increase in complex spinal surgery. They culled data to compare themselves with other western and eastern Washington rates, and found that even with their increase, they were performing only half the surgeries of other groups in their market. Ostrem said, "We think this variation is positive because it illustrates how our primary teams do not refer everyone for surgery, and when they do, they use evidence-based medicine to make those determinations."

How electronic medical records change the game

"We were the first system to say every doctor will use EMR," said Handley. "You might call this the 'non-elective' model of participation."

Group Health aimed to capture the benefit of network effects in an information technology setting. As soon as all care providers were wired into the same EMR, they knew that they could reliably find key information there, and they found that investing time and attention inputting and retrieving information was rewarding. The EMR quickly became central to an increased reliance on electronic communication as a point of contact for the patient.

Unlike many health systems that started with medical charting capabilities, Group Health started with the patient access side in order to confirm a strong level of demand, and then installed a full EMR. MyGroupHealth was the first version of Group Health's patient portal. Initially rolled out in 2001 to a group of 20,000 patients, it had limited functionality, but set expectations for the decade to follow of fast, complete patient access to the information that concerned them. "Withholding is what makes patients scared," said Quirk. Many staff members believed that giving patients access to their own records had been a transformational event, and wished that requirement had been built into the standards set through the CCHIT EMR[8] certification process, so that this practice would be widespread in the industry.

Many staff members believed that giving patients access to their own records had been a trans-formational event.

Rules of etiquette for EMR usage were adopted and enforced across Group Health:

- Individual short messages are encouraged, not long templates.
- The doctor is strongly encouraged to return all patient messages the same day.
- Standardized questions and answers in some parts of the EMR provide consistent ways to screen the patient population for behavioral risks, allowing those risks to be addressed.
- Unlike many competitors, all information is available for patients to see.
- Doctors share problem lists with patients, and allow them to see lab results in real time.

[8] CCHIT refers to Certification Commission for Health Information Technology, recognized by the federal government as a standards-setting body that certifies the majority of the electronic medical record products used by U.S. hospitals and providers.

"The rule of thumb is that if a patient encounter takes X amount of time, then a phone call will take half X, and a secure electronic message will only take half again that amount of time," noted Handley. This time savings is then re-invested in additional points of contact with each patient. "Also, simply not moving and storing film and charts around is an enormous saving of time and money. There is much less duplication."

The next improvement to the EMR system will be better integration with outside systems.

Decision support is often touted as an EMR benefit, but Group Health saw that benefit in a specific way. "We think plain old alerts like drug interaction precautions or allergy reminders are not usually influential," said Handley. "90% of the time they are over-ridden; an alert means nothing unless it has organizational importance. We think the promise is in 'weird stuff' when unexpected combinations of events are flags for different or better treatment plans. Because EMR rules engines are generally poor, we are building our own from our own best practices, asking doctors 'if X comes up, what is your plan of action.' We will see more of these valuable indicators as time goes on."

Soman said, "Remember, though: data is the bedrock, the foundational element that you need. But, data doesn't do the work of cultural change for you—leadership does." Handley commented, "Compared to what we are delivering, you just can't do high-quality medicine in a three-doctor practice. We have to get past that hunter-gatherer stage in the evolution of medicine, so doctors use all the information available to them."

The next improvement to the EMR system will be better integration with outside systems. "Our core EMR, based on an EPIC platform, is great," said Hereford. "But instead of a Web services centralized exchange, we use a ton of independent HL-7 interfaces, a 1970s model. We will need to move towards more interconnectivity."

Cost control in an integrated setting is easier than in fee-for-service

To lower health care costs, behavior needs to change. This is easier for Group Health to do than it is for most providers because GH has great influence on the doctors, who are on salary, and because the management structure is tightly threaded between the plan and the delivery side.

Bruns contrasted the medical cost management process at Group Health with her previous experiences working for two other health care plans. When she worked for a plan with a large market share, the plan was able to announce changes unilaterally, but providers would fiercely resist change. For example, when enacting prior authorization for digital imaging, she did months of road shows to engage

physicians, but had little impact on them. She described it as, "Eventually, we would just throw the cannon over the wall and listen for the bang. Then I would spend the next three months dealing with complaints." Working for a different plan that had a smaller market share, she was able to implement some changes, and changes met less resistance if the larger players in the market had already adopted them. Bruns pointed out, "Still, even if we had great ideas, we could be defeated by incentives. In those settings, doctors were often being paid to do the wrong things."

In contrast, medical cost management was more effective at Group Health because of aligned incentives, as well as true collaboration between the medical group and the plan. "At Group Health, I would never just tell the medical group what to do," said Bruns. "My position is purposely structured so that I am paid by Group Health Permanente, on loan to Group Health Cooperative under a management services agreement. We really figure out how to do things together. And, when we have a good idea we can rapidly get it done together."

Medical cost management was more effective at Group Health because of aligned incentives.

Bruns gave an example of an initiative called Emergency Department Hospital Inpatient (EDHI), which was designed to improve transitions to a home or a skilled nursing facility and reduce readmissions. They gained widespread agreement on the merit of the potential improvement, and they implemented the program in its first location using four Lean-based rapid-process improvement workshops. As soon as the improvement was verified, they were able to roll the program out to eight hospitals in five months. "We never could have done this in a conventional structure," Bruns commented.

The way decisions were made mattered to many doctors too. "Our motto is 'Physician Led, Professionally Managed,' said Bruns. "If it is physician-led, it will always go smoother. If an idea comes from the plan or the hospital, it is sometimes harder to have trust from the doctors, but we can usually get the doctors on board. If you don't have the physicians on board, forget it."

Built-in inefficiencies haunt fee-for-service medicine, said West. He explained, "When you transfer to a new provider, they want to take all new images because that is how they get paid. And when your doctor sends you to an orthopedic surgeon, that specialist will probably take brand new pictures. Here, the primary care provider talks to our radiologist on the phone, and asks advice to get the right set of films ordered; from the digital system, he gets the orthopedic surgeon on the phone to talk about the image in front of both of them. Together, they decide whether or not to advise the patient to have surgery."

Internal employee pilot for wellness

Because Group Health is one of Washington state's largest employers, it has a suitable base for trying out innovations internally that could reach a larger audience later. The biggest current experiment with the employee insurance pool involved removing co-pays for patients with chronic conditions. "If you are diabetic, there should be no barrier to being seen four times a year for preventive care," said Hereford. "A co-pay might be a barrier for some people, so we want to see what happens when we remove them. We want to keep moving upstream on wellness."

The biggest current experiment with the employee insurance pool involved removing co-pays for patients with chronic conditions.

The pilot project, called Total Health, also used points and incentives to influence beneficial behavior. Joining a health club earned points that could reduce the member's premiums. Taking an online risk assessment or getting a physical would earn more points. Vice President of Marketing Lin MacMaster said, "We took examples from other consumer industries where people will do amazing things to earn trinkets like airline miles. Why not use our built-in emotional drivers to benefit our own health?"

Accessibility and convenience

In the past decade, many health systems increasingly tracked quality and safety metrics, but fewer focused on customer satisfaction or accessibility as a desired measurable outcome.

Mammograms were an area where Group Health has removed days from a typical service cycle. Ostrem noted, "We can take a patient from screening, to diagnostic, to ultrasound, to biopsy and to speaking with a surgeon potentially in the same day; certainly faster than anyone else we know about. Part of this speed comes from our ability to share images and records electronically in a virtual work mode. We need to tell our story better about how speed can produce better decisions and better outcomes."

Group Health measured performance using the widely-used Healthcare Effectiveness Data and Information Set (HEDIS), developed and promoted by the National Committee for Quality Assurance. All 70 HEDIS measures were tracked on some level, and Group Health aspired to rank in the 90th percentile on the measures it considered core; they saw themselves within "spitting distance" of that goal. But they also focused on other targets outside of HEDIS for customer satisfaction.

In the mid-2000s, Group Health prioritized same-day access as one of its most important measures of quality. However, because this initiative predated the Medical Home care model, those quick visits were not producing the patient

Figure 3 *A new model for physician workflows*

Old model	New model
22–24 visits/day	18 visits on Mondays, 14 visits/day Tuesday–Friday
10–20 minute visits	20–30 minute visits
Large in-basket of secure messages; batch and clear every few days	Return all messages same day when possible
2.2 visits/year per enrollee	2.2 visits/year per enrollee
No standard for e-visit or phone visit	2 phone visits per full day; 30% of all visits done as e-visits

Source: Michael Erikson, vice president, primary care services

satisfaction levels expected. They concluded that while fast access was important, comprehensively fixing the issue at hand was ultimately more important, and was also more closely associated with patient satisfaction. The currently tracked measure is the percentage of patients seen within 36 hours of first contact. This metric functioned over weekend periods as well; planned work on Monday for most doctors is skewed to patient visits to clear anticipated weekend backlogs. Customer satisfaction was also measured through the "defect rate," defined as the ratio of patients at the 30-day mark who say Group Health did not meet their needs.

By restructuring doctor workflows and increasing pre-visit preparation, Group Health believed the convenience and impact of patient visits has improved using the same number of doctors (see **Figure 3**).

Peer groups, through online communities, were also being offered to increase accessibility. Group Health was hoping to improve engagement among patients with one or more chronic illnesses. "We are testing an online community, with good success so far. Compared to in-person support groups, the online version helps us reach a different demographic, including more employed people and those with less schedule flexibility," said McCulloch.

The current Online Self Management Program for Chronic Diseases was based on a Stanford model, in which an in-person support group was led by a trained facilitator (who is not a doctor), to help patients break down access barriers and engage with their providers more effectively. The goal was to keep chronic patients out of the hospital. Group Health was experimenting with taking this in-person model online in order to increase the number of times an individual can participate.

Sometimes, online communities were introduced prematurely, or in a format that needed to be iterated before it became effective. "Until recently we supported

some other communities on the Web, but the implementation was not great and use was not extensive. So we took them down," said Grossman. The initial online discussion groups for heart disease, diabetes, depression, and women at midlife were considered insufficiently interactive and had little traffic. A controlled trial is underway for the newer generation of online offerings, focused on living well with chronic diseases.

Consumer pre-conceptions about HMOs hamper Group Health's growth.

III. LESSONS LEARNED AND FUTURE PATHS

Consumer preconceptions about HMOs

One of the most persistent barriers to Group Health's growth appeared to be the legacy of the Health Maintenance Organization (HMO). HMOs gained size in the 1970s as a way to reduce health costs by emphasizing wellness, but in many consumer minds, they just restricted access to care. "As a kid I figured out a trick to get access to my HMO—If I had a cold, I couldn't get in to see them for three days. So instead of saying I had a cold, I said I had trouble breathing. It worked," recalled West.

"Other health plans wrecked the HMO model by acting as a gatekeeper, blocking access to expensive doctors," said O'Brien. "Group Health is the opposite of old-style HMOs—we pile it on!" Trescott added, "We are actually chasing you down to deliver more care to you."

"Even though the market thinks of HMOs as 'bare-bones,' we definitely see Medical Home as a premium product," said Larson. "People still think that if something costs less, it must not be as good. People think Group Health must skimp. The hardest thing to communicate is that we do the opposite."

"We would never do managed care like in the 1990s, where they forced down physician reimbursement," said Hereford. "You can't capitate primary care all by itself…that just encourages primary care physicians to refer everyone out to specialists, causing a bigger problem further down the line. Instead you have to globally capitate, and then pay each entity within the system on a DRG or per-diem basis."

"Patients are remarkably inconsistent about how they think about a plan," Bruns said. "First, they look to see if their current doctor is on the list. Then, they think about a specific, feared, dread disease and try to guess if that plan treats that problem well. Next, they look for as many additional doctors and facilities as possible in the network, thinking quantity is valuable. Then, later on, when they are actually sick, they ask 'Why don't I have seamless care?' This is a marketing challenge to say the least."

"There is a balance between pandering to what people think they want, and informing people in order to change what they say they want. Why wouldn't you choose 'choice' if the costs were the same? Perhaps if you saw the value of integration like we do, you would realize that one of your 'wants' is in conflict with a more important one," Rehrmann posited.

"Right now, some American consumers view 'choice' as a proxy for quality—although that will not get them seamless coordination of care," said Bruns. "That is a paradox but we can't ignore it, and our health plan needs to grow to survive."

Pam MacEwan, executive vice president, public affairs and governance, noted the role of brokers in attracting new clients. "Although brokers have been pushed out of many industries, they are an important factor in health care purchasing here in Washington," she said. "Brokers thrive on complexity at our expense; we would do just fine without them. Not all brokers are alike; the sophisticated ones do explain our value well. But if exchanges someday replaced brokers, I wouldn't feel bad."

"Our Net Promoter Score[9] with brokers continues to climb," said MacMaster. "More brokers are now willing to recommend us because we have made an effort to educate them about our unique value; they hadn't been aware of some aspects before."

Given current market perceptions, however, several Group Health leaders believed it would take a price differential of 10–15% to tip large numbers of people into an integrated plan.

Different products for different customers: integration and choice

All of Group Health's new member growth in the past three years came from Choice plans. But sometimes a Choice plan served as a step to bring patients gradually into an integrated care environment. One new offering was a Point of Service (POS) individual and family plan that was a hybrid between PPO and HMO, but having fewer covered services and higher fees in order to accommodate choice. It was particularly popular with patients laid off from larger employers, where they had enjoyed a rich HMO benefit plan. These Choice patients were much more expensive to administer than a pure integrated patient would be, in terms of fees paid to network providers, but Group Health saw value in exposing as many people as possible to the organization in some way. Group Health hoped that

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[9] The Net Promoter Score is a loyalty metric that measures the difference between promoters and detractors of a service, based on the question, "How likely are you to recommend X to a colleague or friend?" Details are at www.netpromoter.com.

many patients, over time, would value the seamless coordination and potentially better overall care it provided, and migrate to a pure integrated plan.

A Choice plan sometimes served as a step to bring patients gradually into an integrated care environment.

"This strategy has been producing incredible momentum for us," said Armstrong. "Once patients have moved their primary doctor relationship here, they start to consider changing from a POS plan to an HMO plan." The Point of Service plans did not force consumers to switch from their current doctors, but they received a financial incentive if they chose a Group Health doctor. Typical plan designs offered a 10–20% savings in co-payment and co-insurance by staying within the Group Health care delivery system. According to Armstrong, in the first four to six weeks, 25% of POS consumers switched to a Group Health doctor; by the six-month mark, 45% made the switch.

The HMO plans were generally not cheaper than PPO or POS plans, but delivered a higher level of preventive care benefit. Bruns reiterated, "We are able to provide more primary care for patients inside our medical group than for patients who pick a Choice plan. It is more expensive up front for us, but saves 3% to 5% in costs in the long run." As noted previously, patients assigned to a Medical Home care team were prompted continuously for preventive care; a similar system did not exist in the Choice/fee-for-service (FFS) model. Group Health believed that their core integrated product and tiered Choice products worked very well together. Choice members were likely to have at least some interaction with Group Health staff, driving up utilization and scale. "Our group practice anchors the Choice products," said Soman.

Several leaders mentioned the price sensitivity of "young healthies" and were working on creating "skinny" plans and benefits to suit them. Some managers felt "light" delivery options like retail clinics had a useful role treating the healthiest tier of the population, and that Group Health might never attract that tier.

Group Health was also creating new products and services focusing on the senior market. In the past year, Group Health dropped its premiums for some Medicare Advantage products by 77%, through a better internal understanding of actuarial rules and greater demographic segmentation. In January 2010, they were able to offer a premium as low as $17, which was extremely competitive. Group Health perceived strategic and marketing advantages in being known as a champion for seniors and considered this market attractive for three reasons:

1. Group Health's regionality, compared to the biggest national plans, was not a disadvantage in this market
2. The baby boomer population guaranteed increasing growth in this market

3. Group Health's delivery model was particularly suited to managing the health of senior populations

During the last two years of the national recession, more small and mid-size employers had shown a willingness to shift from Choice plans to more cost-effective HMO plans. "Employers are opting in by the dozens monthly," said Armstrong. But the Large Group market raised some concerns among GH executives. Some Large Group employers were national, and were gravitating toward plans with national coverage. Those same employers were often also global, however, and had little trouble managing different health care norms in different countries. With some Large Group employers providing self-funded plans, O'Brien mentioned perverse incentives operating where young healthy people were kept in the self-funded pool, and as employees aged, they were shifted into the HMO offering. Left unaddressed, this shift would cause a pricing and risk problem.

Managers at Group Health did not think being a co-op was the most distinctive thing about them.

The cooperative model

In mid-2009, there was considerable national interest in Group Health as a prototype for how cooperatives could drive more competition in the U.S. health care marketplace, but policymakers may have been paying attention to the wrong aspect of GH. Managers at Group Health did not think being a co-op was the most distinctive thing about them. "It isn't so much that we are a for-profit, or non-profit, or co-op that is our secret; it is that our Medical Home model gives us a powerful incentive and method to prevent chronic and long-term disease, not just treat it piecemeal as it happens," said Rehrmann.

The co-op model was also seen as only one way among many to keep staff focused on the right goals. "Catholic Health is a mission-driven system too, but they have a different decision-making frame," pointed out MacEwan. "As a motivating organizational factor, their frame can work very well too." Rehrmann added, "What really does matter to creating organizational focus is the culture, good management, and commitment to quality."

Executives saw the co-op model as a useful way of achieving consumer engagement, causing individuals to take more interest in the system and benefit themselves, but, again, it was not the only way. "The consumer governance in our cooperative model means we are guided and influenced by our patients. But the crucially important factor is that individuals need to take responsibility for their own health," said Armstrong. "When I think of the most important factors of being a successful health care system, being a co-op isn't even in the top 10," declared Soman.

Contracting and business model

Key to Group Health's structure is the practice of contracting services from other hospitals and doctors. Group Health bought more services than it produced; out of a $2.8 billion medical services budget, $1.8 billion was spent on outside providers in 2009. While the majority of primary care may be delivered by in-house salaried physicians, it has not been practical for Group Health to keep a full range of specialists on staff, depending on regional scale, market share, and demand variability.

One limit to maximizing use of the medical group was geography.

"We certainly seek to maximize the use of our own medical group, rather than turning to outsiders to get our work done. Our medical group is the crown jewel," said O'Brien. But one limit to maximizing use of the medical group was geography. Medicare regulations required that patients not be asked to drive more than 30 miles for an appointment if there was another provider located closer to their home. Non-Medicare patients valued proximity as well.

Since Group Health does not own hospitals, all hospital services were part of the contracted budget as well. Group Health chose regional hospital partners partly for cost reasons, but also on the basis of cultural fit and results orientation. "We do better with partners who realize that the production model of medicine is over," said O'Brien. The partnering process did not always go smoothly, however. One former hospital partner in Tacoma was adjacent to a Group Health facility; once the relationship dissolved, the sky-bridge connecting the two buildings was blocked by a brick wall.

There would be considerable challenges in implementing the Medical Home model throughout a contracted network because of the misalignment of incentives. "We just don't have any better levers with contracted providers than Blue Cross does," said Bruns. "And, we have a smaller network. We ought to think more about how to leverage our medical group and become more clinically integrated across all providers," she added.

Group Health had less influence over the costs of its partners than it did internally. "We are part of a regional partnership called the Puget Sound Health Alliance, where we try to influence the health care cost structure in our region. But frankly, it is hard for a payer to influence a physician when we have less than 10% of their volume in a one-hospital town," said Hereford.

Group Health's business model contributed to its distinctiveness. "Maybe our metric should be Return on Health, not Return on Investment; the more we talk about value, the better," said Grossman. The business model also helped lead to a

mindset of true integration. "We don't even do a profit and loss calculation at the unit level here. It is hard to know how you would even construct one," said Hereford.

But McCulloch believed some elements of improvement that Group Health had developed could be useful even to other systems with different business models, resources, or of different sizes. In fact, he noted Group Health's success in coaching widely disparate groups and that some successful transplants of Group Health innovations have been in very under-served community clinics and hospitals. "It seems that innovation sometimes flourishes where scarcity exists," said McCulloch.

Increased standardization of practice would help continue reducing cost.

What would it take for Group Health to become 25% cheaper than its competitors?

Currently, Group Health prices its policies at 8%–10% less than competitors' at comparable benefit levels. Their strategic plan aimed for a 15% price advantage.

Leaders agreed that it was more complicated to further reduce actual costs of delivery. "Unit costs in an integrated system are not always lower," MacEwan emphasized. "Especially for chronic co-morbid patients, the point is to deliver more care–which will result in better long-term health, and lower long-term need for expensive procedures. Also, competitive pressures have forced us to disaggregate some of our services; when people go outside our network, our costs go up."

There is a possibility that policy pricing could fall as much as 25%, but most managers considered reaching that level unlikely, despite reduced acute and emergency care costs and growing volume that would dilute the overhead of Medical Home. Larson said, "We are already at the 90th percentile in terms of emergency room use and length of hospital stays. So more efficiencies there are not what will lead to big cost reductions."

Increased standardization of practice would help continue reducing cost. McCulloch said, "We need to keep watching all the small things, and setting and tracking specific benchmarks. We have to reinforce a culture that really believes in standardizing work when the evidence says you should. We have only had that culture quite recently and have begun to see the results."

"Remember, one-third of our costs are spent in the hospital, and 84% of costs are at the pen of a physician," said Bruns. "Dramatic long-term cost reductions have to come through the decisions our physicians make. Our relentless focus on reducing waste and paperwork, and leveraging multiple modalities and IT to communicate with patients and other doctors will help doctors make more effective decisions." Hereford added, "The culture of physician groups matters. When physicians bond

more with their institution than with their professional affiliation, we will see greater shared efforts to reduce costs."

"It would help if competitors reduce their costs too—in a sense they are part of our community too," Hereford continued. "More widespread use of either capitation or global payments would get others to also focus on relentlessly doing the right care, and taking waste out."

"In theory, as the Medical Home model gets more effective, patients can make more decisions independent of the care team, either online or offline, and that pattern will reduce costs for us," said Larson. Hereford agreed, noting, "The most expensive modality is physical space. Since 2001, 160,000 people are doing clinical business with us online. Instead of a $70 fee-for-service follow-up visit, it's just an e-mail. We use the phone and the Internet to communicate with our patients, and, in the future, we will use more mobile devices and tele-health."

Expansion of integrated models

Leaders felt care delivery was inherently local and tied to the reach of the physicians and the prestige of the physician group. "To grow, you can't simply buy doctors. It is the competency of the network and plan that holds it together," noted Armstrong.

Hereford added, "The Mayo Clinic has a great model, but it was still very difficult for them to establish themselves in Jacksonville and Scottsdale. Geographic expansion cannot be achieved with technology."

According to several leaders, two steps were seen as fundamental when establishing or growing an integrated care delivery system:

- Its business model must not have perverse incentives, such as paying doctors to do the wrong things.
- Overhead must be manageable. Group Health's biggest barrier to being more affordable was overhead load. The typical way of entering a new community would be to contract with an existing provider, and since contracts usually follow the business model of the provider (typically FFS), there is no control over overheads and the business model. Contracting is generally not a good enough structure to deliver a sustainable, low-cost position.

Operating a national health plan based on conventional fee-for-service reimbursement could be possible; individual providers would be selected to be "in-network," or broader contract arrangements with an existing national plan could be forged. But given that Group Health believed their distinctive features, or "crown jewels," were their own care delivery services, its leaders considered

it unrealistic to expect them to grow into a national system. "Delivery is local. Insurance is aggregated," said MacEwan, citing the majority of delivery systems that are concentrated regionally.

However, some executives felt a hybrid system might serve them well at some point in the future. Providing a premium Medical Home product to patients domiciled near a Group Health delivery area, combined with conventional PPO-style alliances outside that area, could turn out to be national "enough" for some employers. "Let's take it one more step," suggested West. "Health plans are a commodity. What if a national player took a 1% administrative fee and passed us the premium? We could make it work well."

Some executives felt a hybrid system might serve them well at some point in the future.

Several leaders made comparisons between Group Health and Kaiser Permanente (Kaiser), the largest American integrated provider. Kaiser was seen as relatively conservative and slower to adopt innovations like deductibles. "I believe we are more market-oriented and nimbler—we provide rich first-dollar coverage and focus more on preventive care," said one Group Health leader.[10] Kaiser placed more focus on owned-and-operated hospitals, while Group Health no longer owned a single hospital. "Kaiser is less regionally focused than we are," noted Armstrong. "They have a model based on their own staff, and have not invested as much as we have in building relationships with networks of providers."

Growth is not without risk or cost. Armstrong said, "I think 12 to 18 months from now, our leadership team will ask if there are other markets where we can apply what we know. Perhaps. But our size is really great right now, so there are downsides to expansion. Even within our current service area, Olympia is independent from Seattle."

How big does a delivery system need to be to reap the benefits of an organized integrated model such as Medical Home? Management consultants advised Group Health they would hit optimum scale at 1 million plan members—a difficult target in their geography and market. Management's current thinking was that 750,000 members would be a very comfortable level. But as noted earlier, some contracting out would continue to occur to serve some regions, no matter what size was reached. As Group Health gets better at executing Medical Home, and at choosing contracting partners that maximally share their values, they might reach attractive scale effects at lower patient volumes.

[10] This executive preferred to remain anonymous for this comment.

Partnerships

A goal of developing wider partnerships has been evolving within Group Health. "I think one of our flaws had been that we, for too long, rejected the notion that we needed to partner with other providers," said Soman. "We were pariahs when we started, and heavily rejected by the establishment for decades. Then, suddenly, we were 'the answer,' but that was a myth too. In the last several years we have been saying that we have an obligation to all citizens of the state, whether or not they are directly enrolled with us. More extensive partnerships are a good way to serve this obligation."

Virtual partnerships were considered a faster way to grow than direct investment in facilities and employees. "We can do far better with virtual integration than having no partnerships at all, though I think you can't go as far with virtual integration as you can with real integration," said Soman. "To really optimize a care model has traditionally required increasing economy of scale through organic growth, but perhaps partnership can help in this regard too."

"We do shine up our brand when we partner with other prestigious entities," said O'Brien. But partnerships with fee-for-service players were not without complications, and crucially dependent on aligned incentives. Soman commented, "Ultimately, we have to have a relationship directly with the facility—not with its health plan—and share quality goals, IT, centers of excellence, and have the same view of the patient. Only then can we manage for win-wins together. They might say 'Just give us your patients; we want to be accountable and will try to be good.' But without aligned incentives, I just don't believe them."

To achieve continued growth and be able to scale without enormous investment in owned-and-operated facilities, Group Health saw two alternatives:

- In the future, start to designate a class of "favored partners" that share culture and values with Group Health. Group Health staff would remain the Tier 1 of care. Tier 2 would be formed from the favored partners. Tier 3 would comprise all other facilities, and Group Health members would not have the same access there.
- The fallback position is the "I-5 Corridor" idea of targeting a smaller geographic footprint and focusing on increasing market share and their own facility utilization within that footprint.

Some of the need for partnerships was driven by certain employers who did not want "only" an integrated option available to their employees. In those cases,

outside providers would compete on quality and cost to be listed as "favored" within tiers of a Choice plan, alongside Group Health's own staff.

In addition to having partnerships on the provider side, there was a perennial question about whether Group Health should accept patients from other plans. MacEwan said, "There is a key tradeoff for us: the administrative burden is very high if we were to move to a Mayo/Cleveland model of accepting other insurers. I doubt we could maintain all the efficiencies we need to in that case. Further, there is an intangible, but potentially significant, marketing benefit that, 'you can only get access to our doctors if you sign with Group Health.' As our outcomes continue to improve and our prestige grows, this feature may attract more people directly to our integrated plans."

There was a perennial question about whether Group Health should accept patients from other plans.

The next frontier: Where Group Health could invest more

From its first days, Group Health believed its mission extended beyond its current customers and to the entire community. "We are doing great with the health of populations that attend our facilities," said one leader.[11] "But Kaiser Permanente is seen as reaching out more to the wider community, through their ads and actions."

Across the patient population, there was still considerable variation in compliance and health outcomes. "What if we could bring Medical Home's values of consumer engagement and shared decision-making across class and demographics more completely?" Rehrman suggested.

Relative, as well as absolute, performance needed to be monitored too. O'Brien believed that the health care industry today still had an underdeveloped value chain from insurance to delivery. "We need to continue to be an impressive discipline-based system because others may start to catch up," he said.

Early experiments in on-site care for large employers could leverage Group Health's delivery models. Occupational Health services were seen as a possible bridge; these widely adopted services might help new employers gain familiarity with all Group Health services and thereby grow its core patient base.

Policy

Executives agreed that an individual mandate to purchase health insurance would be the single most important change to benefit health care in the region. "Once that

[11] This executive preferred to remain anonymous for this comment.

Leaders would like to see more policy support and funding for comparative effectiveness studies that also looked at cost-effectiveness.

happened, guaranteed issue in the individual market would be no problem for us," MacEwan said. "Right now, some people still drop coverage until they really need it. If they are part of a group through their employer or spouse, they know we have to take them back. This is a pattern, and very disturbing."

Larson noted, "Because of adjusted community rating, we can't price for any risk except age. When not everyone carries insurance, this is a problem for us on both ends of the age spectrum. Some healthy older people get overcharged, and there is simply no way to price pediatric patients with complex chronic illnesses. We get killed on some individual cases. But the fact that age-based pricing works in Medicare is proof positive for me that it works, if the enrollee base is large enough." The widest possible base of enrollees would mitigate this exposure, and an individual mandate could cure it.

Ostrem spoke of the perverse incentives that policy has not yet ironed out. "We run many world-class programs, for example, in arthritis management, that we would be promoting heavily if we were a fee-for-service player. But we have to be sensitive about how much we promote these because there is a danger of attracting riskier patients. Can we be too good? Maybe!"

Grossman called for more policy support and funding for comparative effectiveness studies that also looked at cost-effectiveness. Soman agreed there were potential gains in measuring the comparative effectiveness of new technologies to help control capital expenditure, adding, "I would like to see a more active role for MedPAC[12] here. They should say 'this is our standard process for evaluating technology, and we won't pay for it unless it is useful.'"

"Policy changes are critical to help move the high-value levers," said Armstrong. Once Medicare made a policy change to stop paying for readmissions, Group Health found many more hospitals willing to partner with them on lowering readmissions and improving coordination of care. As Armstrong noted, "If payment is not aligned with desired behavior, there are no incentives to change."

[12] The Medicare Payment Advisory Commission (MedPAC) is an independent Congressional agency that advises the U.S. Congress on issues affecting the Medicare program.

About the case study series

Disruptive innovations in health care have the potential to decrease costs while improving both the quality and accessibility of care. This paper is part of a series of case studies that uses disruptive innovation theory to examine integrated delivery systems and aims to identify the critical factors necessary to achieve many of the desired quality, cost, and access improvements called for in current reform proposals. By providing a historical and strategic analysis of integrated fixed-fee providers, this project hopes to accelerate the adoption of disruptive innovations throughout the health care delivery system.

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About Innosight Institute

Innosight Institute, founded in May 2007, is a 501(c)(3) not-for-profit think tank whose mission is to apply Harvard Business School Professor Clayton Christensen's theories of disruptive innovation to develop and promote solutions to the most vexing problems in the social sector. Innosight Institute's case studies are for illustrative purposes only and do not represent an endorsement by Innosight Institute.

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