New West Physicians’ Journey to Becoming a High-Performing Health System

Part 1: A Vision for Quality and Efficiency

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In October 2015, New West Physicians was named a recipient of the AMGA Foundation’s 2015 Acclaim Award for its initiative “Breaking (Not Bending) the Curve to Achieve the IHI Triple Aim.” Here they share some insights and highlight two projects that were part of their plan to transform the way they deliver health care.
Our journey, which culminated in receiving the 2015 Acclaim Award, began in 1994. New West Physicians (NWP) was formed at a time when the healthcare landscape was in turmoil from the managed care backlash of the gatekeeper HMO model. Although it was impossible to predict the future landscape, through the collapse of this model a singular vision emerged. The vision was simple. Irrespective of future changes in the healthcare delivery system, a physician organization that defined itself based on both the quality and the efficiency of care delivery would be well poised to serve its patients. Although high-quality care and patient service were known to be critical to the success of the model, it was care efficiency that would differentiate us. The great challenge was to build a sophisticated, high-performing organization within the constraints of the finances of primary care medicine. What follows is our vision then and today, for both the quality and the efficiency of our organization.

From our inception, we have viewed high-quality care as the “price of entry” into the world of high-efficiency care. Attempts at improving care efficiency had often been met with skepticism around compromised care. We therefore determined that it was paramount to measure and report quality outcomes from the outset. Moreover, we also determined that a portion of compensation would always be linked to individual provider performance on these quality outcomes studies. Lastly, the vision included transparent reporting of all outcomes with all providers in the organization, and sharing of the data with our health plans—radical concepts at that time.

In 1997, the NWP quality outcomes program was launched and from that point forward, three times yearly, sophisticated quality outcomes studies were conducted on a wide variety of disease entities. The results were compared with best practices in the literature and formed the foundation for a program of continuous quality improvement which continues today. Numerous peer-reviewed publications and grant-funded studies have arisen from this program. As health information technology advanced to catch up with this vision, we embraced the tools necessary for population health management. This began over a decade ago with rudimentary, home-grown registries and has evolved to sophisticated tools permitting the ability to predict and manage the health of our population.

Inherent in our model was the recognition that high-quality care afforded only small improvements in efficiency. We recognized that cost of care was not linked to quality of care and that excessive care was both costly and dangerous to patients. We also modeled
ourselves based on the observation that high-functioning healthcare systems around the globe invariably had a primary-care-centricity that allowed for effective care coordination. Additionally, the vision included that we were a cost center and not a profit center. This resulted in a conscious decision to not own ancillary facilities for imaging, laboratory services, etc. This model allowed us to critically select our entire network of specialty physicians, hospitals, and ancillaries based solely upon their quality and efficiency.

Historically, changes in practice patterns have evolved slowly in response to new developments in evidence-based medicine. Evidence-based research often takes as long as five years to reach clinical practice. Part of this is due to the well-recognized phenomenon of clinical inertia. More importantly, however, much of this is due to the fact that the elimination of wasted care can have important negative financial implications for physicians. It has been well established that new, high-quality literature is not adopted into clinical practice if it is in conflict with established practice patterns. Take, for example, the continuing practice of performing routine nuclear stress tests on patients with stable coronary disease who are asymptomatic, despite clear and accurate literature evidence that this is wasted and potentially harmful care.

Our primary care centricity has allowed us to work closely with our narrow specialty network to eliminate much of the wasted care in our healthcare system. This necessitated the development of our “Bench to Bedside” program. The goal of the program is to study the literature for high-quality, evidenced-based research that fundamentally changes daily practice patterns. This is then fast-tracked into clinical practice over a 6- to 12-week timeframe. The process involves meetings with primary care and specialty physicians to agree on practice consensus. Next, clinical algorithms are built to be utilized by the referral department. Compliance is then monitored by the referral nurses and Chief Medical Officer. This strategy is usually collaborative, occasionally contentious, but always based on accurate science and the best evidence-based medicine. Over time, referral streams have been truncated to support a limited network of high-quality and high-efficiency specialist colleagues. This philosophy has been replicated to extend our network to include our hospital partners, imaging centers, laboratory services, urgent care centers, skilled nursing facilities and other ancillary providers.

Finally and perhaps most importantly, the sustaining force of our organization is a strong culture of accountability. With no competing priorities other than the cost-effective delivery of high-quality medical care, our decision making has been clear and focused. We are transparent in all that we do. The ultimate vision was to create a primary care organization where providers would spend the majority of their time caring for patients and are supported by an infrastructure that provided a high level of provider satisfaction. Provider satisfaction translates into engaged and motivated individuals who constantly strive to raise the bar of their chosen art—the practice of primary care medicine.

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New West Physicians (NWP) is one of the largest physician-owned primary care physician groups in Colorado, with 17 locations throughout their metro area (population 3 million). They employ an integrated team of board-certified family practice and internal medicine physicians, physician assistants and nurse practitioners, and dedicated hospitalists who serve five contracted hospitals (a total of 97 providers), as well as behavioral health clinicians and full-time psychiatrists.

In October 2015, NWP was named a recipient of the AMGA Foundation’s 2015 Acclaim Award. As part of the application process, the organization was asked to highlight two narratives describing the design and deployment of two major components—projects, phases, or tactical plans—that were part of their plan to transform the way they deliver health care in order to more fully achieve the AMGA High-Performing Health System™ (HPHS) attributes, improving both the quality and cost of care.

Bench to Bedside

When NWP was formed in 1994, they recognized the need to break through quality and efficiency barriers to provide high-quality, cost-effective care. One of their early initiatives was the prototype of a “Bench to Bedside” program to bring new, evidence-based medicine (EBM) into their practices to benefit patients as well as the financial performance and efficiencies of the group.

Challenges to Adopting New EBM Practices

Medical science moves forward at an astounding pace, creating more than 100,000 pages of new published science monthly. Imbedded in this ocean of new science are a subset of studies that have the potential to fundamentally and positively affect both quality and efficiency of care. These studies fall into the category of evidence-based medicine. EBM, if practiced uniformly throughout an organization, has the potential to provide continuous quality improvement in all areas of medicine. Successfully prioritizing day-to-day medical practice based on high quality, EBM can change the patient experience and transform a medical group into a HPHS.

However, the Achilles heel in the adoption of EBM has been the slow and erratic movement of new, high-quality medical science into daily clinical practice. This
process has been observed to take as long as five years to implement in typical medical organizations because of:

- **Information Overload:** Most providers are focused on their own specialty and patients, and do not have time to keep up with important literature developments.
- **Clinical Inertia:** Existing practice patterns are comfortable and stable.
- **Financial Conflict:** When new science would reduce the need for tests and procedures—negatively affecting revenue from those procedures—the response of the provider community is often to find flaws in the study and reject the conclusions.

**Introducing Bench to Bedside**

After evaluating all of these considerations, the organization developed the Bench to Bedside program as part of their efforts toward becoming a HPHS. This program activates high-quality EBM practices in 12 weeks, as compared to the historically observed delay.

NWP’s first outcomes trial using this program was in 1997, immediately following the publication of a high-quality study in the *British Medical Journal*. They looked at the safety and efficacy of outpatient treatment of deep venous thrombosis (DVT). At this time, DVT was routinely treated with a five- to seven-day hospital stay. Within 12 weeks of the publication, NWP had developed an outpatient algorithm and shared it with their hospitalist service and ER physicians. From that point forward, they treated DVT routinely as an outpatient, with improvements in both cost and outcomes. It was several years before this became the standard of care in the community. After this initial success, NWP has continued the program, with specific iterations.

Bench to Bedside helps patients to receive optimal evidence-based care with improvements in patient outcomes, decreased morbidity, and decreases in per capita healthcare costs. In over 20 years of development, Bench to Bedside has grown and evolved to become a lynchpin of the organization.

This powerful program has been notably successful in helping the organization maintain high-quality care while simultaneously reducing cost of care. The following case examples illustrate Bench to Bedside in action within NWP.

**Prostate Cancer Management**

Managing prostate cancer remains controversial. However, notable EBM supports that screening for prostate cancer beyond age 70 does not improve outcomes, and greatly increases costs and patient morbidity. Studies have shown that when elderly patients are diagnosed with prostate cancer, over 80% choose aggressive treatment. Unfortunately, screening elderly patients continues to occur. Also, a sound evidence base supports that most Gleason 6 prostate cancers are not aggressive and can be managed with active surveillance, often preventing the need for potentially toxic and expensive therapies without compromising patient outcomes.

**Prior to Bench to Bedside:** Until 2007, the organization routinely screened patients over age 70 for prostate cancer. (A statewide health fair, promoted by a local TV station, emphasized this approach by providing screening with no age cutoff for screening.)

Active surveillance of Gleason 6 prostate cancer was infrequent at this time.

**After Bench to Bedside:** By consensus, both primary care providers and their network of urologists agreed there was sufficient EBM by 2007 to stop screening for patients age 70 years and older. In 2011, all participating urology practices and the organization signed a letter, which was sent to the board of the local Health Fair. The Health Fair was convinced by the letter, in addition to mounting EBM, and also curtailed screening for individuals age 70 and above starting in 2012. Additionally, the preferred management strategy for Gleason 6 prostate cancer became shared decision-making, with the preferred course of management directed toward active surveillance.

**Outcomes:** Nationwide, the percentage of patients with Gleason 6 prostate cancer managed with active surveillance is less than 50%. As of 2014, 84% of NWP’s patients with Gleason 6 prostate cancer are managed with active surveillance. In 2007, 560 patients were treated for prostate cancer. This number has declined progressively, and as of 2014, the number had dropped to 334. The incidence of advanced prostate cancer has not changed during this period. A conservative estimate of cost savings is over $4.5 million.

**Barrett’s Esophagus Management**

Historically it was thought that the incidence of malignancy with Barrett’s Esophagus was in the 2%-3% range. Recent high-quality population studies have redefined that risk at about 0.1%-0.3%. Moreover, no prospective outcomes studies have shown improved survival of esophageal cancer using a program of screening for Barrett’s Esophagus.

**Prior to Bench to Bedside:** A conservative estimate of the cost to identify one case of esophageal cancer with screening is $750,000, about 10 times higher than...
accepted QALY for a screening procedure. Nonetheless, common practice is to screen with upper endoscopy at intervals from one to three years, and the organization followed the community standard.

After Bench to Bedside: Based on EBM, NWP developed a consensus with its GI colleagues in 2012 that non-dysplastic Barrett’s would be screened no more frequently than every five years. Over the past four years, upper endoscopy frequency has fallen from 322 procedures per year to 287 procedures per year without an increase incidence of Barrett’s-related esophageal cancers.

Intracranial Stenting for TIA/Stroke Due to Intracranial Stenosis

Over the past five years, there has been a proliferation of interventional neuroradiology programs with expertise in performing this procedure in patients who are status post TIA/limited stroke due to intracranial stenosis. Unfortunately, this proliferation developed in advance of a body of EBM which might support the procedure. Two recent studies, including a study published in JAMA in March 2015, showed outcomes that were significantly worse for intracranial stenting versus optimal medical therapy, with higher rates of both stroke and intracranial hemorrhage in the intervention group.

After Bench to Bedside: As a result of these studies, the organization has placed a moratorium on this procedure until such a time when high-quality studies support improved outcomes with this procedure, or unless patient participation is part of a randomized clinical trial.

Rationale and Outcomes: This very recent decision has implications not only for the procedure itself, but also for the evaluation of patients with stroke/TIA. Often, requests are submitted for brain CTA and MRA to evaluate for intracranial stenosis. Since optimal medical therapy has been demonstrated in the above studies to be superior to invasive therapy for intracranial stenosis, there is infrequently an indication for these expensive diagnostics, as they do not change patient management. Most of these are no longer performed. The outcomes are still evolving, but the potential is saving up to $30,000 per patient spared invasive therapy, with improvement in outcomes.

Provider Response and Replicability

NWP has experienced broad support for the Bench to Bedside program across primary care and specialty care providers. At the primary care level, providers view themselves as better physicians as a result of the process, continually raising the bar of daily practice. Also, as the compensation model is significantly weighted toward quality and efficiency measures, primary care physicians also view this as important to their practices’ financial success. Specialist physicians recognize that this process “holds their feet to the fire of EBM” and mandates an optimal approach to patient care.

Many of the innovations required to reach the HPHS attributes involve expensive additions, as in the cases of adding management staff and IT infrastructure. The Bench to Bedside approach is easily scalable across organizations, inexpensive to implement, quickly defines optimal providers in a marketplace, and provides incentives for others to reach that bar. Most importantly, it improves quality and efficiency—and offers patients the confidence that they are receiving the right care.

Comprehensive Diabetes Care

The prevalence of type 2 diabetes in the U.S. has increased over 50% in the past 15 years, in parallel with the worldwide obesity epidemic. Close to 10% of the U.S. population and over 25% of the senior population have type 2 diabetes. NWP’s patient population is no exception.

As NWP sought ways to refine practices toward becoming a HPHS, they believed improvements in diabetes care would enhance patient experience and quality of life, while simultaneously reducing the per capita cost of care (the IHI Triple Aim).

Managing Obesity as a Type 2 Diabetes Risk

Diabetes was the first disease the organization addressed using population health management, starting in the 1990s. NWP began with prevention, by addressing the obesity epidemic among patients. Then, after launching their Diabetes and Nutrition Center in 2003, they developed the prevention process followed today:

Focus on Nutrition: Every exam room prominently displays posters from www.nutrition-source.org for physicians and clinicians to use as talking points. Unlike the government-based website (which had strong commercial input), this website, operated by the Harvard School of Public Health, provides evidence-based nutrition tools (healthy food pyramids, the healthy plate, the sugar content of various beverages and healthy recipes). NWP’s social media and patient newsletter also prominently feature articles on nutritional health.

Vital Signs Monitoring and Outcomes: At every patient encounter, providers measure BMI and exercise history (hours/week). If patients are overweight or obese, this is noted as a chronic
health problem in their electronic health record. NWP then can recommend preventive programs to these patients and study this population over time to track the outcomes of these patient-centered interventions.

- **Customized Weight-Loss Support:** When patients are overweight or obese, they are actively encouraged to participate in the group’s interactive “The New You” weight-loss program. Topics include “Navigating the Grocery Store” and “Optimizing Nutrition While Dining Out,” among others. Historically, patients lose an average of 12 pounds over the 10-week course. For patients with morbid obesity, they offer pharmacotherapy and a bariatric surgery center of excellence when counseling is ineffective.

- **Pre-diabetes Intervention:** For patients diagnosed with impaired fasting glucose, the Diabetes and Nutrition Center conducts an educational Pre-Diabetes course, aiming to prevent the evolution to type 2 diabetes. When providers note a progressive rise in the glycated hemoglobin level, either metformin or pharmacotherapy directed at obesity is recommended to halt or delay development of type 2 diabetes.

**Four Pillars of Diabetes Disease Management**

When patients have an established diagnosis of type 1 or type 2 diabetes, the focus of care shifts to optimal disease management. Via four pillars of care, NWP can reach patients anywhere along the care continuum.

**Pillar 1: Primary Care**
Most encounters take place in the primary care setting. The following occurs:

- Medical assistants record BMI, blood pressure, and exercise history, and update the diabetes flow sheet, which is integrated into the EHR and is auto-populated as information flows into the EHR. The flow sheet includes measures of care quality (most recent fasting glucose, glycated hemoglobin, LDL cholesterol, and blood pressure measurements) and diabetes well care measures (retinal examination, foot examination, proteinuria screening, immunizations, etc.).

- Medical assistants provide updated immunizations as needed.

- If a retinal examination has been performed but not received, this is requested directly from the eye provider through a prepopulated fax or e-form.

- Supervising providers have the option of having medical assistants certified to perform the diabetes foot examination.

- If any outstanding diabetes care measures remain, an alert appears in the population health registry until a provider resolves it. The registry alert will continue if BMI, glycated hemoglobin, or blood pressure is above best practice guidelines or if statin therapy is not current.

Appropriate therapeutic changes are reviewed with the patient using a shared decision-making approach and put into place when indicated. When appropriate, referrals are made to endocrinology or to the Diabetes and Nutrition Center, whose staff works closely not only with the primary care providers, but also with the group’s narrow endocrinology referral network.

**Pillar 2: Diabetes and Nutrition Center**
In 2003, the organization opened the Diabetes and Nutrition Center, a “center without walls,” which provides services at four locations throughout the metro area. The Center employs three individuals, two of whom are Certified Diabetes Educators (CDEs). It is the only physician-owned, certified diabetes center in the state.

The center’s educational approach supports the needs of patients with conditions including impaired fasting glucose, newly diagnosed type 2 diabetes, sub-optimally controlled type 2 diabetes, overweight and obesity, and hyperlipidemia and dyslipidemia. The center provides individual counseling for new onset type 1 diabetes, initiation of insulin and GLP-1 therapies, and uncontrolled insulin-dependent type 1 and type 2 diabetes.

In 2014, patients made nearly 1,800 visits to the Diabetes and Nutrition Center. This number continues to grow yearly.

**Pillar 3: Hospital Care**
The hospital care program is carefully designed to achieve the IHI Triple Aim.

- Dedicated hospitalists provide 24/7 care for patients at five primary contracted hospitals, regardless of the reason for admission or the identity of the admitting physician.

- For admissions unrelated to diabetes, the hospitalist consults to verify optimal diabetes care during the hospitalization. For diabetes-related admissions, the hospitalist observes what might
have resulted in the hospitalization (e.g., lack of medication adherence, lack of appropriate diabetes education, inadequate outpatient follow-up, lack of diabetes foot care, or co-existing psychosocial or substance issues, among others). The hospitalist creates a corrective action plan and musters the necessary resources to regain optimal control of the patient’s diabetes care. Hospitalists have direct access to the organization’s EHR (as well as verbal access) to communicate this plan with the primary care provider.

- Upon discharge, the organization’s transition of care coordinator (a nurse practitioner) contacts all patients to verify new prescriptions and reconciles them with prior outpatient medications to avoid medication errors; reviews home glucose readings; communicates with the primary care provider regarding patient status and any need for further intervention prior to the next clinic visit; facilitates specialist consultations, home care, nursing visits and DME; and when indicated, engages the Diabetes and Nutrition Center, case management and counseling resources.

**Pillar 4: Centralized Population Health Management**

NWP’s centralized case management unburdens physicians from the administrative task of tracking patients with diabetes to make certain they are scheduled for necessary visits and up to date with their diabetes care. Case management and IT staff provide critical infrastructure, including:

- **Comprehensive Population Health Management Registry:** In 2009, the organization implemented a homegrown patient registry that allowed it to track diabetes outcomes. In 2012, they launched a population health management platform. This system resides within the EHR. Today, the registry helps providers manage their population of patients with diabetes. Physicians can search patients by ICD 9/10 group, display them on a single chart, sort them into sub-groups by disease control measures and/or care gaps, and take action to “capture” these patients to receive or update appropriate care as well as compare their quality outcomes results with those of their peers. Additionally, the organization uses registry reporting to develop educational topics for the group, to plan for the Diabetes Center’s educational needs, to conduct prospective quality outcomes studies and to calculate provider quality scores.

- **Quarterly Reporting on All Patients with Sub-optimally Controlled Diabetes:** This report informs providers so they can take direct action as indicated. The report also alerts the Diabetes and Nutrition Center to automatically schedule visits with patients whose glycated hemoglobin levels are over 8.5%.

- **Medication Adherence Reporting:** Medication adherence information is forwarded directly to the case management department. Staff members trained in direct patient engagement and motivational interviewing contact these patients to assess barriers to care for the purpose of improving medication adherence. Utilizing this methodology has allowed the group to attain the CMS Five Star Quality Rating for all three medication adherence measures in its Medicare MA plan.

- **Prescription Decision-Making:** Implicit in all pharmacotherapy decisions in the organization is a pharmacoeconomic consideration, based on the Bench to Bedside program). For example, the yearly cost to reduce glycated hemoglobin by 1% varies from $48 for metformin to over $6,500 for the DPP IV inhibitors. Providers balance costs with potential benefits to diabetes outcomes and comorbidities, as well as potential toxicities and side effects, to form evidence-based prescribing recommendations.

**TABLE 1**

<table>
<thead>
<tr>
<th>Diabetes Outcomes</th>
<th>Standard</th>
<th>New West Physicians</th>
<th>Goal</th>
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<tbody>
<tr>
<td>Glycated hemoglobin</td>
<td>7.2%</td>
<td>&lt;7.3%</td>
<td></td>
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<tr>
<td>Blood pressure</td>
<td>122/74 mm Hg</td>
<td>&lt;130/80 mm Hg</td>
<td></td>
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<tr>
<td>LDL cholesterol</td>
<td>88 mg/dl</td>
<td>&lt;100 mg/dl</td>
<td></td>
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<tr>
<td>Patients w/ retinal screen</td>
<td>66%</td>
<td>Quality Compass</td>
<td></td>
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<tr>
<td>w/in 12 mos.</td>
<td></td>
<td>75th percentile = 62%</td>
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**Patient and Health System Outcomes**

Beginning with the launch of the Diabetes and Nutrition Center in 2003, NWP has tracked outcome measures for patients with diabetes for 10+ years. They use this information to improve patient experience, improve quality of care, and reduce per capita health-care expenditures for patients with diabetes. Current diabetes outcomes are shown in Table 1.

Thanks to these results, the group’s providers have attained NCQA Diabetes Care recognition, and all 17 of their sites have maintained NCQA-PCMH Level 3 recognition since 2011. Also, positive patient outcomes...
have allowed all providers to achieve quality incentive bonuses as part of their compensation plan.

The lessons learned have provided the framework for NWP to develop population health management programs for vascular disease, atrial fibrillation, comprehensive cancer care, and asthma and COPD, among others. Decentralizing many program elements to individual practice sites and allowing medical assistants to function at the top of their licenses defrays much of the program’s operating costs (primarily technology and ACO staffing). Ultimately, the savings to the healthcare system more than offset the cost of providing these services. In the case of diabetes, these programs have uncovered true ROI by aligning reimbursement with optimal patient care.

Organizational Overview

- 17 offices serving nearly 200,000 patients
- 97 providers, 360 employees and $58 million in revenue
- Hospitalist program (including nurse case managers) for continuity of care
- Narrow specialist panel rigorously selected
- Diabetes and Nutrition Center serving more than 1,800 patients yearly
- Integrated Behavioral Health Center
- Cohesive, relationship-based approach to patient care, with shared decision-making and patient engagement
- Physician-owned, with dedication to the primary care model of care
- Independent from hospital systems and health insurance plans to preserve the ability to make patient-centered decisions without competing agendas and priorities
- Judicious primary care physician selection to ensure shared dedication to the mission, vision, and philosophy

References


Adapted from the Acclaim Award application of New West Physicians submitted by Ken Cohen, M.D., FACP, chief medical officer.