Dreyer Medical Clinic: Clinical Integration Transforms Health Outcomes

2010 Acclaim Award Honoree

Editor’s Note: In September 2010, Dreyer Medical Clinic was named an honoree of the American Medical Group Foundation’s 2010 Acclaim Award for its initiative "Clinical Integration Transforms Outcomes."

Dreyer Medical Clinic is a multi-specialty medical group with 150 physicians and 600 full-time and 400 part-time support staff, consisting of advance practice nurses, physician assistants, and other allied health professionals, as well as support services employees. Established in 1922 and based in Fox Valley, Illinois, Dreyer Medical Clinic provides care at 12 service locations with 27 specialties. The clinic provides a full range of ancillary services including radiology, laboratory, radiation therapy, pharmacy, addictions counseling, audiometry and hearing aids, developmental center for ADD children and adults, dietary counseling, health education, physical and occupational therapy, sports medicine, optometry, stress testing, psychology and social work, and therapy and support groups.

Dreyer’s clinical integration program is a joint venture among system hospitals, physician hospital organizations, and medical groups.

The foundation of the organization is summarized in its vision and mission. Vision: A physician-led medical group providing the best health outcomes and building lifelong relationships with those we serve. Mission: To provide the highest-quality health care to the individuals, families, and communities we serve. The key components of the vision and mission statements integrate the elements of the IOM aims:

- Best health outcomes (safe, effective, patient centered, timely, equitable)
- Lifelong relationships (patient centered, timely, efficient, equitable)
- For the individuals, families, and communities we serve (patient centered)

The organization has two strategies, operational excellence and profitable growth, that are supported by CI. Operational excellence clearly includes many IOM aims (safe, effective, patient centered, timely, efficient) through measures like inpatient length of stay and readmission rate. Profitable growth is supported by clinical integration through improved patient satisfaction scores, elimination of waste, additional revenues from evidence-based medicine services, demonstrated value to employers/payers, and direct CI payments from payers.

Management

“Management’ means, in the last analysis, the substitution of thought for brawn and muscle, of knowledge for folklore and superstition, and of cooperation for force,” according to Peter Drucker.1

In 2004, Dreyer Medical Clinic began participating in a system CI initiative with a modest set of six measures. Leadership realized that the existing state of care management was far from management theorist Peter Drucker’s ideals. Clinicians “muscled” their way through visits without preplanning, real-time prompts, or help from others. Dreyer’s quality, once measured, was “folklore” in many measures. And clinicians tried to force quality from the quality department rather than embed improvements in everyday workflows. The organization was humbled by these realizations.

Today, the CI program encompasses a uniform set of more than 80 measures with clear goals in the domains of clinical outcomes, efficiency, medical/technological infrastructure, patient safety, and
patient satisfaction. Almost all the results on the 2009 CI report card place Dreyer as above average in performance compared to national results, and some measures appear to be approaching benchmark performance. Patients are benefiting from greater thoughtfulness, knowledge, and cooperation among clinicians. Today, Dreyer is driven to improve even further. The organization’s 2010 current state is structured and aligned to continually measure, manage, and improve health care to meet the IOM’s six aims of safe, effective, patient-centered, timely, efficient, and equitable health care.

**Leadership**

Dreyer Medical Clinic’s work was facilitated by consistent messages from four system leaders. The CEO of Advocate Health Care began nearly every organizational meeting by stating, “First and foremost we are a clinical enterprise.” He made CI a priority for senior management throughout the system. The chief medical officer of Advocate Health Care made CI the priority for medical management throughout the system. The medical group president spoke of quality as what “makes our organization what it is.” The physician chairman of the board always states, “It’s about the patients.” All four leaders endorsed CI at every opportunity and more importantly, wove it into the fabric of the management system via six Key Result Areas (KRAs, described below).

The single most courageous decision was made by Dreyer’s physician board, which voted to expand the program to include all patients and not just HMO patients. The system targeted HMO patients as the first CI population to keep the scale appropriate to the other organizations in the system. Because the board so strongly supported the CI project (and because Dreyer had
an EMR), the organization seized the opportunity to build a bigger program. As a result, the group’s physicians manage four times as many patients as the physicians in an average system. This means their impact on health outcomes is four times greater. The board is proud of the physicians’ accomplishments and the learning they are able to share with the system. Senior management also supported the board’s decision wholeheartedly.

Key Result Areas

Dreyer Medical Clinic manages its business using Key Result Areas. KRAs are a variant of the Kaplan/Norton “balanced scorecard.” The KRA scorecard functions as a management tool to align business activities to the vision and strategy of the organization, improve internal and external communications, and monitor organization performance against strategic goals. KRAs transform Dreyer’s strategic plan for operational excellence and profitable growth from a passive document into a visual control board for the organization. It provides the framework to help managers identify what’s important, what to improve, and how to measure those key activities. KRA scoreboards exist for each site and every service line to provide visual management of organizational goals in every location (see Table 1).

Three other KRAs—Patient Satisfaction, Physician Satisfaction, and Employee Satisfaction—support Health Outcomes to varying degrees. Better health outcomes are clearly associated with high patient, physician, and employee satisfaction. While employee satisfaction was high in 2004, the medical group’s patient and physician satisfaction scores demanded attention. The remaining two KRAs are Growth and Funding Our Future, typical of financial measures found on a traditional scorecard.

Accountability is part of the KRA system of management. KRAs are managed online. Direct supervisors, known as one-ups, can easily determine progress towards goals. If necessary, 90-day action plans can be used to address a lack of progress. Because KRAs are the basis for performance reviews, expectations and accountabilities are clear regarding Health Outcomes. In addition, the Health Outcomes result is given a weight of 40% in determining incentive compensation for those eligible.

The physician board and management clearly co-led Health Outcomes via the CI program. Three levers are used to motivate physician behavior:

- **Moral:** The board walked out of the board room united in their conviction that achieving excellent health outcomes is “why we went into medicine.” This was the

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**FIGURE 1**

Dreyer Change Equation

<table>
<thead>
<tr>
<th>Level of Dissatisfaction</th>
<th>Clear Vision of Change</th>
<th>Practical First Steps Identified</th>
<th>Belief That Change Is Possible</th>
<th>Practical First Steps Identified</th>
<th>Cost of Change</th>
<th>= Successful Change</th>
</tr>
</thead>
</table>

**TABLE 2**

Sample Registry Sizes

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic prescribing</td>
<td>220,740</td>
<td>308,953</td>
</tr>
<tr>
<td>Smoking status registry</td>
<td>75,462</td>
<td>79,207</td>
</tr>
<tr>
<td>Identified smokers</td>
<td>4,586</td>
<td>5,378</td>
</tr>
<tr>
<td>Diabetics with HgbA1c &lt;7</td>
<td>2,841</td>
<td>4,428</td>
</tr>
<tr>
<td>Childhood immunizations</td>
<td>1166</td>
<td>1,499</td>
</tr>
<tr>
<td>Asthmatics with Asthma Action Plan</td>
<td>985</td>
<td>1,313</td>
</tr>
<tr>
<td>AMI patients eligible for anti-platelet</td>
<td>92</td>
<td>92</td>
</tr>
</tbody>
</table>

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in the midst of an organizational redesign on the physician side to better incorporate the linkage between strategy and execution inherent in KRAs.

**Implementation**

Dreyer Medical Group used a simple change equation to guide its efforts (see Figure 1).

First, the group needed a heightened level of dissatisfaction with the current state. The senior leadership team and the physician board created dissatisfaction or a “burning platform” for physicians based on appeals to professionalism (IOM’s “…chasm and not a gap…”), social/peer pressure (mediocre results and “why can’t I be as good as that best performer”), and financial promise (the potential for significant future CI payments). Stories were used to paint a clear vision of what the future state would create in terms of quality, years of life added, and market share. They also painted a dark picture of what might happen if the medical group entered unprepared into a future world of payer-mandated measurement.

Leadership demonstrated elegant tools developed by QI and IT, such as health maintenance alerts and electronic flow sheets in the EMR, which replaced clunky paper flow sheets and sticky notes. QI developed simple first steps consisting of department-specific ways to meet their goals.

Dreyer was fortunate to have a small core team devoted to CI. The larger CI implementation team was a group consisting of the QI director, medical directors, chief information officer, chief nursing officer, EMR manager, PCP department chairs, pharmacy director, and a data analyst. As the measures became more specialty oriented, they brought in the specialty department chairs as well. Eventually, the larger departments adopted KRA management tools and assigned one or two lead physicians to assist the core team as needed.

consistent voice of the board and it was publicly repeated at every opportunity.

- **Social:** The board has used peer pressure and recognition. The board voted to make reaching Health Outcomes goals at the individual physician level a criterion for new shareholders. Department chairs and mentors were expected to work with new physicians to achieve CI goals. In addition, the board voted to gradually increase transparency to the point where everyone could view physician scores. Also, the board created incentives for all physicians to complete three Institute for Healthcare Communications courses on improving communication skills. It endorsed working with Proctor & Gamble on behavioral interviewing for patient satisfaction skills. Several otherwise promising candidates were not hired based on predications of poor future patient satisfaction skills. Finally, the board started recognizing and celebrating physician and department accomplishments at shareholder meetings.

- **Financial:** The board increased the physician share of CI income temporarily until payments became large enough under the usual compensation arrangement to become incentives on their own. Also, the board approved a budget that included an additional quality staff member to support the CI effort. In addition, the budget included funds for new communication training. Finally, the board led a compensation plan redesign tying 5% of physician compensation to meeting patient satisfaction goals.

The CI effort is now part of every department’s meetings and goals. The favorable management experience with KRAs has led some physician department chairs to format and align department goals in partnership with site directors and managers around common KRAs. This development was serendipitous. It has aided the medical group in rethinking its medical management structure. Dreyer Medical Clinic is...
To begin, the QI director, medical directors, and CIO conducted a rigorous translation of the CI components into operational definitions usable in IT system. The definitions were double-checked by the system CI team to ensure consistency across the network. Pilot registries were sent out and physicians advised them of errors that led to further refinement of the operational definitions (see “Dreyer Sample Operational Definition”).

Dreyer educated physicians, mid-level providers, the leadership team, and employees about CI. The QI department “went on the road” to all of sites. Special meetings for providers were quickly nicknamed “CI College” by physicians. Attendance exceeded 90%. Practical tactics to assist patients and physicians were presented at the meetings. The CI program was reinforced at director meetings, leadership team meetings, and organization forums.

The goals for each measure were set by the system. Data from prior years were run to obtain baseline performance. Where there were gaps, the medical group set about to close them using a simple change tool. An unclear vision was not an issue. Focus was needed on the other four boxes of the change equation.

**Challenges**

Confusion, anxiety, gradual change, frustration, and false starts could have easily derailed the effort. Confusion was not an issue as administration and the physician board repeatedly supported CI at shareholder meetings, department meetings, and employee meetings. The program was written up for the employee and physician newsletters.

Anxiety was a concern. The medical group had just completed implementation of its EMR and physicians were still struggling with basic functions, let alone health maintenance reminders, registries, and flow sheets. The EMR team and associate medical director for the EMR were instrumental in teaching the new skills necessary to use the EMR for population management. The use of CI tools was also made part of ongoing EMR optimization. The team listened to users for suggestions on how to make the tools more efficient. Later on, Lean techniques improved both workflows and tools. For example, the PCP rooming Lean Rapid Improvement Event (RIE) event hardwired three important CI process steps into rooming.

**The results indicate steady and meaningful progress for the patients Dreyer serves.**

Gradual change was also a concern. Incentives to participate were as varied as the physicians themselves. For some, seeing their percentage of patients with an HgbA1c <7 increase was reward enough. Others responded to stories of “uncontrollable” diabetics now under control. Still others vowed “they were never average” and that scores would increase. Some responded to diabetes and lipid clinics run by pharmacists that offloaded work to mid-level providers, leaving more time per visit for other patient needs. And a few responded to the payments, although they were modest at first. Communication training, necessary to improve outcomes, required a small financial incentive for shareholders and became mandatory for new hires. The medical group avoided gradual change on the management and employee side by incorporating the Health Outcomes KRA into everyday management. CI priorities were explicit and linked to performance reviews and incentive compensation.

Frustration was another concern. The preparation year for CI in 2004 coincided with a crippling double blow of a 200% increase in malpractice premiums and the loss of a key PPO payer contract. Creativity had to triumph over capital. The area of greatest concern was the QI department. Facilitating this large endeavor stretched them to the limit. Adding a data analyst to work with the EMR and practice management systems eased the burden somewhat. Managing non-compliant patients to new levels of adherence required the acceptance of mid-level providers such as the pharmacists mentioned above and a new reliance on employees in the clinical areas to preplan visit testing, work in patients overdue for services, and use health maintenance reminders and flow sheets themselves. Again, Lean techniques later led to new approaches to old problems such as prescription refills to allow more time for value-added CI activities.

False starts were the final concern. The QI director and medical director, working with department chairs, developed customized action plans for physicians in each department. The plans outlined the measure, the goals, and the available tools to manage each goal. Working with IT and the data analyst, Dreyer created monthly lists of patients requiring services. Physicians had practical first steps to get them going on the right foot.

The biggest challenge turned out to be waste in processes. For the last two years, process improvement using Lean techniques has played a critical role in improving workflows, including CI workflows. A Health Outcomes metric, either clinical quality or safety, is a measurable goal in every rapid improvement event that touches a clinical area. For example, the primary care value stream RIE around patient rooming added several key CI activities mentioned above without increasing manual cycle time. CI metrics are used by the group’s Lean facilitators in planning events to ensure they can improve CI performance whenever possible.

**Results**

The system selected measures based on medical evidence, the ability to measure, the ability to improve, and the magnitude of
the outcome that can be achieved. In addition, the measures have to appeal to physicians, payers, and employers. New measures are constantly being added. Occasionally, a measure is retired or modified. Metrics are grounded in clear operational definitions for each measure. The program is reviewed yearly at a system level. Data come from three sources: clinical data from the EMR via a report writer; administrative data from the practice management software via a data warehouse; and “missing” clinical information from chart review as needed. Their results are audited by the system and have been found to be accurate.

Nearly every patient population was impacted. While patients with chronic diseases may have the most indicators, measures such as generic prescribing and documentation of smoking status impacted nearly all patients. The sub-population impact varies by measure. Sample registry sizes are shown in Table 2.

Data are submitted to the system monthly and the system returns a quarterly report card. Physicians can access performance at any time via the intranet. They also receive quarterly paper updates and a year-end paper report.

Managers and physicians can view their Health Outcomes score (the CI score) as part of their KRAs on the organization’s intranet or on white boards in the main office. The KRAs are updated monthly. Site directors also post KRA results. Both the system KRA results and the organization’s KRA results are available to show if they are contributing to the system’s rollup KRA goals.

The results have been extremely gratifying. Compared to the recent release of PPO quality performance by the NCQA, the results are striking (see Table 3).

The results indicate steady and meaningful progress for the patients Dreyer serves. For example, consider diabetes. A single percentage point drop can increase life expectancy by five years and provide an additional eight years of vision and six years without kidney disease. In 2002, approximately 20% of patients had a HgbA1c <7. In 2009, 66% of approximately 4,500 patients with diabetes are now <7. An additional 1,800 of patients with diabetes realized the benefits of better control thanks to CI measurements, and payers benefited by an estimated cost reduction of $1,200 to $4,100 for each percentage point drop in HgbA1c.

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Measure</th>
<th>HEDIS HMO</th>
<th>HEDIS PPO</th>
<th>Expected Results</th>
<th>Actual 2009 Results</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Childhood Immunization</td>
<td>Combo 3</td>
<td>79.6%</td>
<td>28.5%</td>
<td>48.9%</td>
<td>81.1%</td>
<td>32.2%</td>
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<tr>
<td></td>
<td>HgbA1c</td>
<td>89.0%</td>
<td>79.5%</td>
<td>83.3%</td>
<td>96.3%</td>
<td>13.0%</td>
</tr>
<tr>
<td></td>
<td>Good (&lt;7) Control</td>
<td>43.3%</td>
<td>13.5%</td>
<td>25.4%</td>
<td>66.2%</td>
<td>40.7%</td>
</tr>
<tr>
<td></td>
<td>Poor (&gt;9) Control</td>
<td>28.4%</td>
<td>74.4%</td>
<td>56.0%</td>
<td>10.7%</td>
<td>-45.3%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>LDL Performed</td>
<td>84.8%</td>
<td>74.7%</td>
<td>78.7%</td>
<td>94.1%</td>
<td>15.4%</td>
</tr>
<tr>
<td></td>
<td>LDL &lt;100</td>
<td>45.5%</td>
<td>14.8%</td>
<td>27.1%</td>
<td>66.2%</td>
<td>39.1%</td>
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<tr>
<td></td>
<td>Eye Exam</td>
<td>56.5%</td>
<td>35.8%</td>
<td>44.1%</td>
<td>56.0%</td>
<td>11.9%</td>
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<tr>
<td></td>
<td>Microalbumin Screening</td>
<td>82.4%</td>
<td>65.9%</td>
<td>72.5%</td>
<td>88.1%</td>
<td>15.6%</td>
</tr>
<tr>
<td></td>
<td>BP &lt;140/90</td>
<td>65.6%</td>
<td>N/A</td>
<td>N/A</td>
<td>88.7%</td>
<td>23.1%</td>
</tr>
<tr>
<td></td>
<td>BP &lt;130/90</td>
<td>33.4%</td>
<td>N/A</td>
<td>N/A</td>
<td>60.2%</td>
<td>26.8%</td>
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<tr>
<td>Smoking Cessation</td>
<td>Advice to Quit</td>
<td>76.7%</td>
<td>71.6%</td>
<td>73.6%</td>
<td>99.7%</td>
<td>26.0%</td>
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<tr>
<td>Cardiac</td>
<td>LDL Performed</td>
<td>88.9%</td>
<td>75.3%</td>
<td>80.7%</td>
<td>95.9%</td>
<td>15.2%</td>
</tr>
<tr>
<td></td>
<td>LDL &lt;100</td>
<td>59.7%</td>
<td>17.3%</td>
<td>34.3%</td>
<td>87.1%</td>
<td>52.9%</td>
</tr>
</tbody>
</table>

*2009 CI Results adjusted for 40% HMO and 60% PPO.
Another example is acute myocardial infarction (AMI). Simple use of anti-platelet therapy reduces the absolute risk of death following AMI by 36 lives per 1,000 patients treated over two years. The avoidable costs of hospitalization for these patients are estimated at between $17,452 and $19,689. Beta blocker prescribing after AMI reduces the reoccurrence rate by 27% and the risk of CAD-related death by 22%. Dreyer moved from 90% effectiveness in this two-measure bundle to nearly 100% in four years.

Another example is generic utilization. This is one of the few measures where Dreyer only has HMO information. Two years ago, Dreyer’s rate generated $3,200,000 in savings for the HMO company and $800,000 in savings for the members in Dreyer’s panel. The medical group’s completion percentages for asthma action plans had been declining rather than improving. Dreyer estimated that 13 patients were at risk for an asthma exacerbation severe enough to cause them to be admitted to the hospital this year if asthma action planning did not improve. The good news is that Dreyer’s PCPs and representatives from QI and the EMR team decided to form a small workgroup to determine apparent causes, generate and prioritize countermeasures, and assign team members specific actions to improve their performance. This was the direct result of physicians’ viewing their results and not being satisfied.

The group plans to work with the system to increase the number of specialty measures. Currently, the effort required by PCPs to improve or maintain scores is significant. However, process improvements from Lean are expected to reduce the burden.

**Lessons Learned**

Dreyer Medical Clinic’s greatest learning can be symbolized by General Electric’s formula for results: Q x A2 = E. In the equation, Q is the quality of the idea, the first A is accountability, the second A is accountability, and E is effectiveness. A2 is the key. The majority of efforts need to focus on the human and cultural (the A) parts of the equation. Dreyer first looked at CI in terms of hardware (another server for the data) and software (reporting tools) but quickly realized that it was the “folkware” that really mattered. No matter how great the idea of better outcomes and no matter how integral to the medical profession, people have to accept it. It began with local and industry drivers that, when added together, created the burning platform for change. The change message has to come from, and be relentlessly repeated by, both physician and administrative leadership. Leadership needed to convince the middle adopters that innovators are already on board and it is a waste of time to dwell on the few late adopters who resist everything. “What’s in it for me” (WIIFM) issues need to be identified and addressed using moral, social, and financial levers in the physician community. Once the initiative got going, it had to be sustained. Any and all early successes were publicized and celebrated. The medical group went back to the users to ask what they could simplify in CI. The flywheel effect is very real. Every push helps. Going into the fifth year, CI is an accepted part of the way Dreyer cares for patients.

The equally important other A is accountability. CI is a team sport. While top management had an expectation that leadership and employees would do their part, accountabilities ensure that it happens. The KRA management system was a key component to create accountabilities, measure performance, and course correct as necessary. Tying incentive compensation to the Health Outcomes KRA helped as well.

The coordination of vision, strategy, structure, decision support systems, reward systems, and human resource systems all created a culture of improvement. This aspect of Dreyer’s culture is still nascent, requiring attention. But the level of attention is diminishing as improvements and attention without constant attention. That’s what culture should do for an organization.

No two healthcare organizations are alike. The medical group believes that its system and its commitment to CI are remarkable. Dreyer hopes the knowledge that expectations and accountabilities for measurement and management can produce remarkable improvements will encourage others to begin the journey.

**References**

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Adapted from the 2010 Acclaim Award Application of Dreyer Medical Clinic submitted by Anil Keswani, M.D., vice president, medical management.