Connecting Statewide Health Information Technology Strategy to Payment Reform

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**Objective:** To develop an effective way to link statewide healthcare information technology strategy to payment reform.

**Study Design:** Investigation of what Wisconsin did to develop and publicly share provider performance data and then use those data to drive payment reform.

**Methods:** We examine 2 statewide organizations (Wisconsin Collaborative for Healthcare Quality and Wisconsin Health Information Organization) and 1 integrated health system (ThedaCare) to evaluate how they pool data and use those data to measure provider performance.

**Results:** When aggregated data regarding health outcomes are shared, a clearer picture emerges of provider performance baselines and improvements with which payment models can be developed.

**Conclusions:** Aggregating commercial and Medicare claims data will help states to better measure provider performance and to compare providers on quality and cost. The ability to compare performance using broad databases is necessary if the current payment system in the United States is to be reformed.


States are scrambling to develop health information strategies that comply with the new federal reform law regarding health information exchange. An important component of this law is that physicians will start reporting data to the Centers for Medicare & Medicaid Services (CMS) as CMS works toward full launching of the Physician Compare Web site. However, collecting and sharing these data can and should have a wider effect. We can use the data to create payment systems that reward providers for delivering lower-cost higher-quality care. In this article, we will describe the following 3 initiatives aimed at achieving this goal: the Wisconsin Collaborative for Healthcare Quality (WCHQ), the Wisconsin Health Information Organization (WHIO), and the Wisconsin Payment Reform Initiative (WPRI). The first 2 are not-for-profit statewide organizations focused on reporting cost and quality outcomes and on using the data to drive improvement in healthcare value. The WPRI is a special initiative of the WHIO. These organizations are voluntary public or private partnerships. Most data organizations in the United States have been created by state mandate, and the data are unavailable to the public. The Wisconsin data not only are available to the public but also are or will soon be publicly reported in a format that patients can access and use to make medical decisions. However, transparency and payment changes are only 2 parts of a 3-part puzzle. We will also discuss the changes that providers of care must make to deliver improved patient value, without which no important value improvement (quality and cost) can occur in America's healthcare industry.

**WISCONSIN COLLABORATIVE FOR HEALTHCARE QUALITY**

In 2002, one of us (JST), then chief executive officer (CEO) of ThedaCare, initiated a series of phone calls with similar healthcare providers from around Wisconsin to discuss the crisis in healthcare quality and
the growing drumbeat for reform. Along with Don Logan, MD (chief medical officer of Dean Health System), Jeff Thompson, MD (CEO of Gundersen Lutheran), Fred Wesbrook, MD (CEO of Marshfield Clinic), and George Kerwin (CEO of Bellin Health), Dr. Toussaint invited purchasers (from 8 major employers throughout the state) to come together and explore the possibility of using quality reporting to improve healthcare. Together, the providers and employers decided on key performance metrics that needed to be publicly reported, and the WCHQ was created.

The business voice was critical in the early development of the WCHQ. When there was controversy regarding what to measure and why, the business leaders were clear. For example, one of the early controversies was whether to measure access to care. The business leaders reported that access to care was a big problem in many markets and was leading to lower worker productivity. Therefore, an access measure was created (time to the next third available appointment) and continues to be reported to this day. Business leaders also emphasized that "perfect data" should not be the focus. They pushed for reporting of the quality data on hand, realizing the data would improve with time. Perfect, they said, can be the enemy of the good. These business and provider leaders supported the WCHQ by lending their performance improvement staff to the committee that developed the performance measures and by attending the monthly WCHQ meetings starting in 2003.

Eight years later, the WCHQ has greatly expanded its membership. It also has built a statewide initiative with a broad group of stakeholders that has a common objective, language, and approach to improving the healthcare system.

The WCHQ has built an infrastructure and expertise focusing on the following 4 main aims: to develop performance measures to assess quality, to guide the collection and analysis of data to support measure creation, to publicly report measurement results, and to share best practices with providers. The WCHQ has translated evidence-based medicine into the reality of local practices to improve patient care and the health of the community. However, getting the WCHQ off the ground was not easy; it required political will and hard work from all the players involved.

During the early stages of development when the WCHQ was represented by just 8 providers and 8 businesses, other provider organizations claimed that these founding members were simply focused on marketing their own organizations. In fact, the goal of the collaborative was to prove the hypothesis that provider performance could be compared before inviting all in the state to participate. Members spent a year developing and testing measures before deciding to invite all healthcare providers to participate. The WCHQ now comprises 27 organizations, representing most of Wisconsin's physicians (Table I).

Although the WCHQ started with providers, it was the initial belief that a multistakeholder initiative was required. The WCHQ has partnered with other organizations, such as business coalitions, consumer advocates, governmental agencies, foundations, and healthcare associations, to gain a more balanced and complete understanding of what the current state of health care is and how it can be improved. The healthcare purchaser and other stakeholder partners benefit from having a voice at the table and a unique understanding of the provider perspective.

The value proposition of the WCHQ revolves around 2 interrelated core competencies. These are performance data, including development and public reporting of measures via its Web site (http://www.wchq.org [Figure 1]) and facilitation of collaborative sharing of best practices to improve care delivery and outcomes.
The WCHQ members, such as Dean Health System, Prevea Health, and ThedaCare, have shared presentations. These have included topics specific to patient care (eg, best practices for the treatment of patients with diabetes mellitus) and general topics relevant to health care systems (eg, creation of a culture of quality).

The WCHQ was formed before most health systems had implemented electronic medical records (EMRs). It was not the EMR that led to the formation of the WCHQ. In contrast, involvement with the collaborative may have spurred some organizations to move a bit quicker to invest in EMRs because they made data reporting easier. That being said, the opportunities for health information technology and health information exchange to affect our work are significant (Figure 2). While the architecture for health information exchange in the state is still being developed, it will likely rely on a "federated" model that obviates the need for a large static repository of data. Under this scenario, data reside within the provider organization but are accessed as necessary by the collaborative for purposes of quality measurement.

Since the WCHQ released its first public report in the fall of 2003, its portfolio has increased to include more than 60 measures, with 25 measures of physician performance reported at the group level. Some measures covered include glycated hemoglobin blood glucose testing for patients with diabetes mellitus, low-density lipoprotein cholesterol levels in cardiac patients, chronic kidney disease screenings, adult tobacco use, and cervical cancer screenings. A complete list can be found on the Web site at http://www.wchq.org.

The measurement method used by the WCHQ marries administrative data with more robust clinical results, allowing a physician group or health system to collect and report quality-of-care results on all patients under their care. Provider organizations submit patient-level data extracts to a secure data repository maintained by the WCHQ, allowing for efficient and accurate generation of the calculated measures. This repository is also an approved registry for submission of data to the CMS under the Physician Quality Reporting Initiative program.

**AT THE FOREFRONT OF REGIONAL AND NATIONAL EFFORTS**

The enactment of the American Reinvestment and Recovery Act and the Patient Protection and Affordable Care Act firmly established performance measurement, reporting, and improvement as an organizational imperative for every healthcare provider, regardless of delivery setting. In anticipation of this, the WCHQ is focusing its efforts on the following key strategic priorities: (1) Leveraging its expertise and tracking record in performance measurement to serve as a state and national model on a broad range of issues related to the adoption and use of measures in support of public reporting, quality improvement, payment reform, and consumer engagement. (2) Developing a "value metric" depicting the intersection of clinical quality and episode-based resource utilization at the physician group level. (3) Continuing expansion of the measures portfolio to specialty care, including chronic kidney disease, cardiac surgery, depression, and hip or knee readmissions, as well as patient experience of care and the physician group Consumer Assessment of Health care Providers and Systems provided by the CMS. (4) Introducing and developing a new Web site (http://www.wisconsinhealthreports.org) designed to report comparative information for consumers.
New Ways of Working Together

In 2005, the WCHQ leadership determined that, while the organization's clinical information was robust, it lacked the data necessary to measure the efficiency of the care being delivered. At the time, the WCHQ leaders were busy expanding the clinical measures of the organization, so a separate group was formed to tackle the issue of efficiency. It was clear that, without a statewide administrative claims database, the WCHQ was not going to be able to measure resource utilization and ultimately cost of care. This realization by the WCHQ leaders led to a series of meetings called by the WCHQ chairman (JST), who was well known to most of the state insurance executives because his organization, ThedaCare, owned a health plan (TouchPoint) that was sold to one of the national carriers in 2004. This health plan had received the National Commission for Quality Assurance award for best Healthcare Effectiveness Data and Information Set scores in the country 2 years in a row. This experience, as well as the national reputation of the health plan, gave him the credibility to convene the insurers and explore a vision for the future that could only occur with collective action and cooperation of a broad group of insurers. He started by calling the CEOs of the major commercial insurers in Wisconsin to determine their interest in working together with the WCHQ to build a common claims database for Wisconsin. The initial idea was met with interest and with skepticism. Insurers are fiercely protective of the data they collect, viewing their information as the root of a company's competitive advantage. A series of meetings between insurers and a few members of the collaborative was necessary before everyone agreed on a goal of creating a common claims database that all insurance companies could access.

The initial group of insurers included UnitedHealthcare, Humana, Anthem Blue Cross and Blue Shield, WPS Health Insurance, and WEA Trust. They agreed to come together on a monthly basis to further explore the idea of connecting statewide health information technology. There were many issues, including antitrust, Health Insurance Portability and Accountability Act compliance, data use standards, and competitive interests. The issues became even more challenging as important provider groups joined, such as the Wisconsin Medical Society and the Wisconsin Hospital Association. The biggest early barrier was agreeing on where the data would reside and who would have control over the use of the data. During one board retreat, there was so much disagreement regarding vendor selection for the data mart that a trained facilitator was required to help identify all the reasons for conflict. Even after spending an entire day understanding why certain stakeholders did not want to select a vendor owned by one of the commercial insurers, distrust persisted, and the vote was 7 to 6 in favor of moving ahead with the controversial vendor. Several more facilitated board retreats would be required before a high level of trust among board members would be established. This work required a seasoned facilitator and thoughtful listening on the part of the chair. It also required many "offline" phone calls between meetings to address the real issues that were not brought up in actual face-to-face meetings. Over time as trust was established, the chair was able to coach the group to address these issues in person. This early groundwork has led to a remarkably collaborative environment in the state among providers, insurers, the state government, and employers.

The state department of health secretary, representing Medicaid and the state workers benefit plans, was involved from the beginning, as was a large Milwaukee employer coalition, the South East Business Group on Health, and a Madison-based coalition, the Madison Alliance, which brought the employer perspective to much of the discussion. This multi-stakeholder group brought a remarkable set of assets and decision-making power to the table.
Wisconsin Health Information Organization

By 2007, the expanded group of insurers, employers, and state interests working together to connect statewide health information technology became the WHIO, which formed as a 501(c)(3) private-public partnership (Table 2). Another one of us (CQ) took over leadership of the WCHQ, while Dr. Toussaint was elected chairman of the WHIO. This private sector voluntary initiative is unique among states' efforts because it is not government mandated or controlled, and the data are available to any organization wanting to subscribe. At this point, only subscribers have access to the collected payment data.

Members of the WHIO established a mission to collect, aggregate, and disseminate administrative claims data to improve the quality, safety, and cost of healthcare ill Wisconsin. The group produced a database and software interface allowing subscribers to measure and monitor provider efficiency and quality using standardized measures applied to the same statewide data. While the WCHQ and WHIO began with different objectives, both organizations evolved over time, and today there is some overlapping of membership, mission, and core purposes.

The third version of the WHIO data released in April 2010 included claims information on 47% of Wisconsin residents, or 2.6 million individuals. The data were from the 5 largest commercial insurers, from Medicaid fee-for-service claims, and from a health maintenance organization (HMO) in western Wisconsin. Version 3 comprised 135 million claims, including pharmacy claims, and just under $30 billion in billed charges. Last fall, the fourth version of the data contained additional HMO and Medicaid HMO claims. Version 4 is estimated to cover 60% of Wisconsin residents, approximately 3.8 million lives. The fifth version of the data, which will be released this spring, will include claims on almost all Wisconsin residents except for the Medicare population. This exception is a concern because 40% of patients seen by physician groups are covered by Medicare. Omitting this population leaves a serious gap in our ability to understand overall provider performance.

The WHIO Health Analytics Exchange produces standard reports on individual physicians, groups of specialists, and clinics (Figure 3). While the data de-identify the patients, every patient is indexed and can be tracked over time and across changes in employers or payers. This allows the data mart to measure readmissions, not only to the same hospital but also those readmissions which go to a different facility. The exchange also allows user-friendly construction of reports on any of the elements of the relational database.

Physician cost and utilization measures are applied to episodes of care rather than to units of service (Table 3). Comparing providers based solely on unit price is misleading, as it is the frequency and mix of services that comprise the cost of care. Furthermore, it is the treatment of HI episode or condition that is relevant not only to the patient but also to the physician when comparing himself or herself with peers.

While claims data collected by the WHIO cannot provide the full clinical picture and in the current state cannot provide most outcome measures, these data are an excellent source for monitoring process measures. Because of the patient indexing feature, these data over time will allow tracking and trending of patient care process performance and resource utilization by market. The ultimate goal is payment reform to reimburse providers based on lower cost and on improved population health. With the WHIO's efficiency data and the WCHQ's quality data, changes in population health and cost among the commercially insured, self-funded, and Medicaid populations can be measured. The most
comprehensive and accurate measure of provider performance should include data on the Medicare population, but these data have not been accessible because of CMS restrictions on their use.

The WHIO dedicated 2010 to informing providers about the content and functionality of the Health Analytics Exchange. Accessing the data and exchange functionality are 11 large integrated medical systems, 5 of the largest commercial insurers, 9 health plans, 3 associations, the Wisconsin Department of Health Services and Medicaid, the State of Wisconsin Department of Employees Trust Fund, and 2 large employer coalitions. The Wisconsin Medical Society has contributed a great deal of support in outreach to the physician community through orientations newsletters, and symposia. Likewise, the Wisconsin Hospital Association has informed their membership of the value of the exchange. The WHIO was contracted with the Wisconsin Department of Health Services to provide publicly reported consumer information from the data mart beginning in 2011.

EFFECT OF DATA ON INTEGRATED DELIVERY SYSTEMS IN WISCONSIN

There are many integrated delivery systems in Wisconsin. One of these is ThedaCare, consisting of 5 hospitals, 24 outpatient centers, home care, and senior living, headquartered in Appleton and serving 7 counties in northeastern Wisconsin. Ten years ago, ThedaCare began a journey that deviated from the strategy of most healthcare providers. At a time when most systems were getting bigger to leverage more pricing power with insurers, ThedaCare focused on how to deliver higher-quality lower-cost services to patients. However, there were no reliable cost or quality data on health performance that would differentiate better performance at the time. Other integrated systems in the state were also frustrated with the lack of reliable performance data on quality and cost. The leaders of these organizations perceived that they were being penalized by a marketplace focused on size and leverage rather than on low cost and high quality. The goal of these organizations is to publicly report performance on all quality measures and to begin to focus the market on accurate and comprehensive data. In fact, based on a 2008 Commonwealth Fund report,1 most WCHQ organizations believe that their organizational performance has improved because of the public reporting of these data. A major 3-year prospective study (entitled "Evaluating the Impact of Public Reporting on Quality in Wisconsin") is in progress at the Medical College of Wisconsin, Milwaukee, which has supported investigating this more rigorously.

These databases have supported the commitment of ThedaCare to quality improvement. For example, part of a physician's pay is dependent on how he or she scores on the WCHQ measures of quality, and the physicians' compensation committee was considering adding the WHIO resource utilization measures as another component of the at-risk compensation at ThedaCare. At-risk compensation for performance is 10% of pay, which has been found to be enough to get the attention of physicians and to drive improvement. At the executive level, 50% of bonus opportunity is based on quality performance, and many of the bonus targets are based on the publicly reported WCHQ quality measures.

The journey to create better value for patients has been frustrating when it comes to government payment processes. In ThedaCare's redesigned inpatient general medicine unit, called collaborative care, costs have dropped almost 25%, and quality has increased to near 100% reliability. For example, there were zero medication reconciliation errors for 3 years running in this prototype unit. Yet, Medicare pays ThedaCare $2000 less per case than it pays to its lower-quality higher-cost competitors.2 Improvement in heart surgery costs and quality have led to the same outcome of lower Medicare payments. Despite these barriers, ThedaCare continues to innovate using a process redesign method
called lean healthcare. The lean practices of ThedaCare have allowed it to withstand difficult economic times and lower Medicare payments by reducing expenses, while increasing quality.

This example is the reason for payment reform. Owing to the WCHQ and WHIO databases, it is possible to identify which organizations are improving value (higher quality at lower cost) performance in Wisconsin, meaning that paying for value can become a reality.

**PAYMENT REFORM**

Rising costs of health care services cannot be mitigated, and quality improvement is stunted as long as the payment and incentive structure for reimbursing physicians is based on units of service. As long as we pay more for more units of care, we will get more units of care rather than the most effective treatment at the most efficient (total) cost. If we keep paying more for hospitalizing patients than for preventing individuals from being admitted through effective preventive care, physicians will not invest in preventive care initiatives or care coordination. Indeed, as long as we pay for sick care instead of health care, physicians will continue to practice medicine the way they do today.

To achieve real and lasting improvements in the healthcare delivery system, leaders of these initiatives believe that the reimbursement model must change. Payment must reward improved behaviors, such as better preventive care, care coordination, compliance, and overall health of the population, while reducing costs.

To that end, the WHIO board leaders initiated conversations with a broad-ranging group of healthcare stakeholders, including its multistakeholder membership and additional physicians representing smaller group practices, rural providers, researchers, employers, and consumers. These discussions, facilitated by Harold D. Miller, MS, of the Center for Healthcare Quality and Payment Reform, led to a Payment Reform Summit held in the spring of 2010. Almost 200 individuals, representing employers, consumers, government, insurers, providers, health plans, and researchers, attended the summit and participated in 1 of 6 work groups focused on preventive care, chronic care, or acute care. These groups established a consensus approach and commitment to a payment reform pilot project in Wisconsin, as well as agreement on an aggressive time line for implementation by January 2011.

**Wisconsin Payment Reform Initiative**

Efforts of the Payment Reform Summit led to the establishment of the WPRI. Following the summit, 3 prominent physician leaders volunteered to lead continuing work groups to construct the pilot projects. With an aggressive time line, these groups are meeting frequently. Subgroups are focused on measures, payment models, and market selection. Each group will determine the best condition or diagnosis to include in the pilot, methods to measure performance for that condition, and a payment model suited to that condition, and will select provider groups and payers to pilot the initiatives. In January 2011, the WPRI was scheduled to run a simulation, make appropriate adjustments, and then implement the pilot projects.

It must be clearly understood that the WPRI could not progress without the existence of the robust clinical and administrative data represented in the WCHQ and WHIO databases. The existing WHIO database is used to model care and cost improvements from baseline quality and resource utilization anchored to peer group performance on each episode of care. This allows the WPRI to overcome some
of the limitations of existing Medicare demonstration projects. These projects, such as the physician group practice demonstration, measure future improvements in physician or group cost of care against their current charges to Medicare and then share in the savings. The problem with the shared-savings model is clearly articulated by Harold Miller: "Unfortunately, there are some fundamental weaknesses in the shared savings approach that make it far less desirable as a payment reform than it might first appear: it doesn't really fix the underlying problems in the payment system; it gives providers risk without resources; it rewards high spenders rather than high performers; it may or may not keep a provider from suffering financial losses; and it's not sustainable as a payment reform." On the other hand, with the WHIO and Medicare claims together, there are enough episode-of-care data that new payment models (other than shared savings) could be tested. For example, global payment could be established, starting with a slightly lower overall payment for any particular episode of care, which allows Medicare and other payers to achieve savings but also incentivizes providers to take waste out of the care process, reduce the total cost, and be rewarded with all the savings. This is important because the providers have a better chance of "remaining whole" from the original payment. There is much to learn about payment models, but leaders of these initiatives seem confident that they now have the tools to answer the hard questions.

LESSONS LEARNED FROM THE WISCONSIN EXPERIENCE

The following 5 lessons have been learned from the Wisconsin experience: (1) Engaging multiple stakeholders is critical to success. Providers, insurers, state government, and employers, when brought to the table together, can break down the barriers necessary to create real performance transparency. (2) Professional facilitators are critical to surface issues between multiple stakeholders and to build trust. Development of a collaborative environment among competitors requires expertise in encouraging individuals to talk about the real issues. The organizational development professionals at ThedaCare provided important support every step of the way in building the WCHQ and WHIO boards. (3) A credible leader is required to convene the group. It is important for this leader not only to keep the best interest of each party in mind but also to be able to take controversial stands on critical issues that move the fledgling organizations forward. Although this leader should always strive for consensus, there are times when votes may be required because not everyone agrees. This happened only a few times in the development of the WCHQ and WHIO, but with the full airing of disagreements, the organizations became stronger. The credible leader must assure that a culture of respect is established up front and is maintained throughout all board and committee meetings. (4) The fact that this initiative has been voluntary and consensus driven has moved Wisconsin ahead quickly with regard to public transparency. However, now that the WCHQ and WHIO have been created voluntarily and proof of concept completed, the question is why some providers are excused from participating. At some point in the future, it may be necessary for legislative action to assure that all providers are reporting. It is unfair to the patients in Wisconsin that not every provider is reporting. (5) The more individuals that are involved, the better. It is hard to manage big groups of healthcare leaders, but engagement of a broad base of key stakeholders is how innovation and results happen. Do not turn any healthcare leader away who wants to participate; in fact, find a place for each to add his or her talents and resources to the job at hand.
CONCLUSIONS

The work in Wisconsin proves that it is possible to create a successful voluntary initiative to publicly report healthcare quality and cost outcomes. There is still work to do to make the data marts and Web sites a credible source for patients to make decisions, but statewide efforts are committed to that goal. These data can be used to understand baseline provider performance on cost and quality, which will allow the WPRI participants to develop new payment models that reward provider systems that deliver higher-quality lower-cost care. This important change in incentives will support the development of care delivery models that are more efficient and of higher quality. It will result in providers’ learning new techniques of quality and cost improvement, such as the lean healthcare. These methods have been shown to create the real and sustainable change that we need in the United States to deliver reliably better value to patients.

Take-Away Points

- Aggregating commercial and Medicare claims data will help states to better measure provider performance and to compare providers on quality and cost.
- The ability to compare performance using broad databases is necessary if the current payment system in the United States is to be reformed.
- Creation of multistakeholder statewide organizations to collect and analyze provider performance data is essential for effective payment reform.
- Up-to-date Medicare claims data should be available to the statewide initiatives to provide a complete view of provider performance.

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Author Affiliations: From the ThedaCare Center for Health Care Value (JST), Appleton, WI; Wisconsin Collaborative for Healthcare Quality (CQ), Middleton, WI; and Wisconsin Health Information Organization (JWM), Middleton, WI.

Funding Source: None.

Author Disclosures: Mr. Queram reports serving as a board member for and being employed by the Wisconsin Collaborative for Healthcare Quality. Ms. Musser reports providing marketing education and training to the WHIO Health Analytics Exchange, and also reports serving as a paid consultant for the Wisconsin Collaborative for Healthcare Quality. Dr. Toussaint reports no relationship or financial interest with any entity that would pose a conflict of interest with the subject matter of this article.

Authorship Information: Concept and design (JST, JWM); acquisition of data (JST); analysis and interpretation of data (JST); drafting of the manuscript (JST, CQ, JWM); critical revision of the manuscript for important intellectual content (JST, CQ, JWM); and provision of study materials or patients (CQ).

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Article Source

This article was published by the online version of The American Journal of Managed Care on March 18, 2011. To view this article, visit http://www.ajmc.com/.