

The Promise of Regional Data Aggregation

Lessons Learned by the Robert Wood Johnson Foundation's National Program Office for Aligning Forces for Quality

Background

Measuring and reporting the quality of care that doctors and hospitals deliver is a cornerstone of the Aligning Forces for Quality (AF4Q) program. Alliances use both national and regionally based data to plan activities to improve health care quality. National and regional data aggregation and reporting efforts are each important in their own right, and together have had a huge impact on the quality of care delivered across the United States. Each plays a unique role, and both are needed to continue progress in improving quality and value.

National efforts to measure and report quality measures (e.g., *U.S. News and World Report* and *WhyNotTheBest.org*) are powerful drivers that promote competition and can garner attention from organizations that may not otherwise prioritize measurement and improvement. Because the measures are standardized and reported annually, it is possible to track trends—helping policymakers and health systems target areas in need of improvement. Additionally, efforts led by national payers or purchasers (e.g., Hospital Compare and Leapfrog Group) have deep payment and regulatory leverage that can influence both improvement priorities and purchasing decisions, with a scope that touches nearly all hospitals and systems in the United States.

However, national data aggregation and reporting efforts often focus on a limited number of objectives and may artificially narrow the scope of quality improvement in which providers might otherwise engage. This can result in national efforts inadvertently competing with regional efforts for the data, attention, and quality improvement resources of the same hospitals and systems. Additionally, national data sets often experience a significant data lag, do not include attribution to providers or practices, and include only administrative claims data. There is also wide variability in the quality of the data sets in terms of completeness and accuracy of the data. These characteristics limit the data's use for quality improvement efforts.

Single-payer data can provide physicians information about their patient population that is more useful for quality improvement, but the data readily available in most communities are often fragmented, representing care processes and outcomes from an individual health plan or health system. This limits the types of measures that can be calculated and can result in each health plan providing physicians with conflicting information on their performance. To manage the health of their patient population fully, providers need access to data that are aggregated across multiple sources.

For these reasons, Aligning Forces Alliances have created regional data sets, collecting clinical and claims data from multiple payers, including a majority of providers and systems within a given Alliance's region, and aggregating those data to measure health care quality and outcomes.

Quality measures based on data aggregated across multiple sources are statistically more reliable and less subject to random variation than measures calculated from a single health plan or health system because the data provide a larger denominator than is available without combining data sources. Additionally, including data from multiple payers (i.e., public and private) provides a more comprehensive look at the community, allowing for the measurement and improvement of care provided to all patients, regardless of insurance status.

Employers and purchasers, also, need a robust multi-payer source of information on health care quality and value to make the best possible decisions about health benefits for employees. Currently, most of the information employers can access comes from health plans and is generally single-payer data, limiting employers' ability to benchmark against other local or national employers and purchasers. Further, employers are reliant on plans for analytics and, without strong engagement from a skilled analyst, may be unable to address the key strategic questions involved in population health management. Finally, consumers and physicians may regard data aggregated by a neutral third party as more trustworthy than reports produced by an individual health plan or system.

While recognizing the value of comprehensive, multi-payer regional data sets paired with high-level national data sets is nothing new, the collective experience of 16 Aligning Forces Alliances working to develop and use such data sets for public reporting, quality improvement, payment reform, and benefit design offers valuable lessons about how regional and national measurement efforts can play complementary roles to improve quality and value.

A National Movement Toward Greater Health Care Transparency

- **National data aggregation is useful to heighten attention to quality, identify areas of variation, develop benchmarks, and inform and stimulate policy.**

Efforts to aggregate and report health care quality information at a national level date back to 1984 with the public reporting of hospital mortality rates of Medicare patients.¹ In 1993, the National Committee for Quality Assurance (NCQA) began to report data on the quality of managed care plans drawn from the Health Plan Employer Data Information Set (HEDIS). Large employers created the Leapfrog Group in 2000 to collect and report information on hospital safety and quality in 2001. In 2002 CMS began its own voluntary Hospital Quality Initiative, and today nearly all eligible hospitals in the nation participate. National efforts continue to expand to other care settings—for example, Physician Compare will soon report quality of care ratings for Group Practices, and Hospice Compare is anticipated to launch in 2017.

These efforts have served primarily as transparency tools to understand variation in health care quality and costs at a high level, inform consumer and purchaser decisions, and stimulate competition among providers. Because of its payment and regulatory leverage, Hospital Compare in particular has been effective in raising awareness about variation in quality performance and helping to prioritize areas for improvement. And as a result of new authorities granted under the Affordable Care Act, CMS is now using its huge stores of aggregated data to power its evolution from a fee-for-service model to a value-based purchaser of care—most notably with its readmission reduction program.²

¹ Colmers, John. (2007). Public Reporting and Transparency. The Commonwealth Fund. Commission on a High-Performance Health System. http://www.commonwealthfund.org/~media/files/publications/fund-report/2007/feb/public-reporting-and-transparency/colmers_pubreportingtransparency_988-pdf.pdf.

² CMS.gov. CMS DataNavigator [Internet]. Baltimore (MD): Centers for Medicare and Medicaid Services; [cited 2014 May 2]. Available from: <https://dnav.cms.gov/>.

Additional Data Elements Enable Targeted Quality Improvement

- **Access to combined claims, clinical, and demographic information (race, ethnicity, language, and socio-economic status) enables more robust performance information and targeted quality improvement efforts, especially when focused on driving better health care outcomes.**
- **Regional data aggregators have more flexibility to provide timely, actionable data that align with local priorities that national initiatives may be unable to respond to or achieve.**
- **Regional data aggregators gain the trust of providers by allowing for detailed analysis of the data that drills down to their specific patients. This drill-down capability is critical for ensuring both the validity and trust of the data, as well as for continuous quality improvement.**

While Hospital Compare and other national data sets have been useful in guiding federal policy and payment priorities, they are less useful to hospitals and providers looking to improve care delivery and outcomes. One of the key drivers for sustainable quality improvement is the collection of aggregated data to produce standardized performance measures on a routine basis, using reliable, transparent, and trusted data collection processes. Ideally, claims, clinical, patient experience, and cost data will be combined for a comprehensive community view. These combined data sets are especially important in improving outcomes and patient experience, reducing cost and utilization, and when dealing with complex patients or health care disparities. For hospitals and providers to achieve improvements in these areas, transformative change to both care processes and payment systems is needed. Regional data aggregators have flexible access to multi- or all-payer data that enable physicians to design new models of care delivery and payment and meet new regulations and consumer expectations.

Better Health Greater Cleveland (Better Health), the Aligning Forces Alliance in Cleveland, OH, provides a compelling example of the power of flexible, comprehensive local data. Better Health regularly collects clinical data on a number of clinical process and outcome measures, as well as information on patients' race, ethnicity, primary language (REL), and other socio-demographic factors. A recent analysis of their data found that aggregate patient outcomes in Cleveland were better than the national average: Among the more than 130,000 patients with high blood pressure, nearly 70 percent have good control—more than 20 percent higher than the national average.³ But a more comprehensive look at the data, including stratification of outcomes by race and ethnicity, showed that good control is more prevalent among Caucasians (73 percent) than among Hispanics (65 percent) and African Americans (62 percent). Further, despite improvements among all races, the gap between African American and other racial groups was increasing.

Acting on this information, Better Health was able to mine its data further to identify positive outliers that were resisting this trend. Better Health identified one system that was seeing dramatic improvements in

³ Hypertension Among Adults in the United States: National Health and Nutrition Examination Survey, 2011–2012. Centers for Disease Control and Prevention. <http://www.cdc.gov/nchs/data/databriefs/db133.htm#control>

blood pressure control for all patients. In the outlier health system, 90 percent of patients with high blood pressure had it under control, with almost no race-related gaps. Better Health is now working with this system to spread its improvement strategies to five health additional practices with predominantly low-income African American populations and the lowest levels of blood pressure control in the region.

Having access to this robust data set allowed providers in Cleveland to better understand trends in patient outcomes that might otherwise have been interpreted differently. In turn, providers were able to identify solutions that were working to improve care for all patients.

Demonstrating Impact, Informing Policy

- **Regional data aggregation efforts can be used to evaluate national models of quality improvement and delivery system transformation and inform any adaptations needed to make the model work locally.**

Better Health's regional data sets have also been used to support the expansion of Medicaid in the state of Ohio.⁴ Medicaid expansion under the Affordable Care Act was far from certain on February 5, 2013, when CMS granted a waiver that enabled Ohio to add up to 30,000 uninsured adults living in Cuyahoga County to a new health care coverage program called Care Plus. Many stakeholders supporting the expansion viewed the waiver as a testing ground to determine the feasibility of a statewide Medicaid expansion.

Better Health's Data Center evaluated the program to determine whether it had achieved its goals, including better access, better care, better outcomes, and lower costs than those that CMS had estimated as "budget neutral." The early results are far better than most observers expected.

Better Health's data, provided by members' electronic health records, showed that among Care Plus patients with diabetes:

1. Standards for care improved 9 percentage points (relative improvement 18 percent); and
2. Standards for outcomes improved 7 points (relative improvement 28 percent).

While some measures improved more than others, improvements were noted on virtually all individual standards. Care Plus patients with hypertension showed modest improvements in good blood pressure control (3 points, or 5.5 percent relative improvement) that were associated with an increased proportion of patients on two or more blood pressure medications. The year-to-year improvements for diabetes patients are unprecedented in Better Health's history of public reporting. They are especially remarkable because the Care Plus patients were only enrolled for an average of nine months in 2013 and were more disadvantaged than other uninsured patients in 2012.

Equally remarkable results on selected utilization measures and total costs of care were reported. Emergency Department (ED) use by Care Plus patients declined by at least 60 percent from 2012 to 2013. The decrease was associated with a 50 percent increase in use of primary care services during the same time period. The costs associated with increased primary care use did not result in an overall increase in

⁴ http://forces4quality.org/safety-net-greater-cleveland-demonstrates-what-possible-medicaid-expansion?term_id=143

costs. In fact, despite growth in primary care utilization, total costs of care among Care Plus patients were approximately 25 percent lower per enrollee per month than CMS's "cost-neutral" estimates for these patients. When summarized across all enrollees, Better Health estimates total costs of services to be approximately \$50 million lower than initial CMS projections.

The improvements in access, outcomes, and cost documented by Better Health helped win the approval for wider Medicaid expansions throughout the state.

Alliances as Arbiters for Improvement

- **Regional data aggregation serves as a tool to establish Alliances as trusted, neutral community resources for measurement and improvement.**
- **Regional data aggregation helps Alliances build a proof of concept that can be used to attract continued stakeholder support.**

Much of the data used in health care, especially for contract and pricing negotiations, are held by providers and health plans as proprietary business intelligence and are not available publicly. When the data are made public, others rarely trust them because of the lack of transparency in data collection processes and measurement methodology, and suspicion about motivation. As regional data aggregators, Aligning Forces Alliances provide a shared, transparent source of data that can build the trust needed to propel the quality improvement work that is so urgently needed. Competition among providers should be on performance against shared goals, not on access to data.

The Health Collaborative of Greater Cincinnati, the Aligning Forces Alliance in Cincinnati, was able to refocus the agenda on shared goals rather than proprietary data by developing a credible, consensus-based "source of truth" by aggregating data on health care quality, costs, and outcomes across payers and providers.

It began by convening local physicians in 2009 to see how they could improve care through performance measurement and public reporting. Recognizing that the prevalence of diabetes in the Cincinnati area was higher than the national average, the Health Collaborative chose to focus on those outcomes first. Providers submitted data to the Health collaborative, which gave them a systematic way to look at which of their patients were experiencing poor outcomes. Medical groups did not know which aspects of their systems were delivering lower-quality care. Patients did not know how their own provider fared on quality measures. The Health Collaborative began collecting data directly from providers in the community on five factors known as the D5. Today, providers have access to a dashboard allowing them to track their performance daily. These data give physicians a clear picture of the diabetes outcomes for each of their patients and facilitate better population health management. The dashboard allows providers to benchmark and compare their performance to other physicians in the community.

The D5 five indicators include:

- 1) a blood pressure reading lower than 130/80,
- 2) a low-density (LDL), or bad cholesterol, reading lower than 100 mg/dL,
- 3) blood sugar or HbA1c reading of less than 8 percent,
- 4) living tobacco-free,
- 5) and taking a daily dose of aspirin as appropriate.

A collective agenda has led to a measureable impact. Between 2010 and 2012, the average rate of patients in a practice hitting the target for all five measures improved from 28 to 30 percent. Some practices have seen even swifter improvements. Mercy Health Deerfield Primary Care and Specialists began measuring the D5 in 2011 and was disappointed to learn that only 11 percent of all patients were meeting the five goals. While it seemed as if the practice was doing a good job on a patient-to-patient basis, the data helped identify where it needed to improve services and clinical workflows. Having access to real-time data also allowed it to see if the changes it implemented were making an impact. The changes have clearly made a difference in diabetes care. Since 2011, Mercy Health Deerfield has seen a threefold increase in its quality indicators for diabetes care, with 38 percent of patients now hitting all five goals.⁵

In addition to informing clinical quality improvement and system transformation efforts, having access to comparative performance data has also allowed the Health Collaborative to evaluate the impact of these efforts on the health system at large. In 2009, the Health Collaborative launched a local push toward patient-centered medical homes (PCMH), recruiting 20 practices to a PCMH pilot. Analysis of the program indicates that participating practices are more efficient compared to non-PCMH practices in Cincinnati. The PCMH pilot population had better clinical outcomes (e.g., clinical quality scores for diabetes care), 3.5 percent fewer ED visits, and 14 percent fewer admissions over the period 2008–2012, even as non-PCMH practices showed an increase in utilization in these metrics over the same period.⁶ The Health Collaborative also found better results for the PCMH population in hospital inpatient bed days and in hospital readmissions. These practices were among the first in the state of Ohio to become certified, and their success has created a movement that now sees more than 180 PCMH-certified practices across the region, with Cincinnati having the highest concentration of PCMH practices in the country.

Conclusion

There is value in a national dialogue on measurement and public reporting; the discussion at a national level draws attention to variation in quality present. However, clinical quality improvement happens locally. Improvement is accelerated at a local or regional level with common, aligned incentives and

⁵ Using Performance Data to Improve Diabetes Care. Aligning Forces for Quality. <http://forces4quality.org/using-performance-data-improve-diabetes-care>

⁶ Building Better Healthcare in Cincinnati: How Employers are Collaborating with Other Healthcare Stakeholders to Improve Health and Reduce Costs in the Queen City. (2013). General Electric Company. <http://www.healthtransformation.ohio.gov/LinkClick.aspx?fileticket=6o9aXFsRnjg%3D&tabid=114>

information. Regional data aggregation efforts enable direct engagement with providers, patients, and purchasers and deliver the data needed for calculating regional benchmarks and facilitating regional improvement efforts. Regional data aggregation efforts can be more responsive to the needs of individual organizations or communities than national data aggregation efforts. Further, such collaboration is necessary to achieve population-level improvements to health care costs, quality, and outcomes. Without the alignment of all stakeholders and leadership at the local level, those seeking to improve quality against a measurement will continue to face significant barriers in payment, quality improvement support, and access to information. Regional measurement and improvement efforts can also maximize the impact of individual system efforts by scaling up and spreading what is working around a focused, community-wide agenda on health.