

# Plenty of Data, Not Enough Answers: What We Need to Improve Health Care Performance

written by Theresa Hush | February 10, 2016



If you read the industry hype, you might believe that we've left the data wasteland for the data land of plenty. Some health care technology and analytics companies allege that, with all this enhanced data capability, you can now discover everything you need to know about your operations and patients that will lead you to higher profitability.

But if that's so, why are health care costs continuing to increase? Why are providers still not able to succeed under risk-based payment models? Why don't we know more about what actually works to improve patient outcomes?

It's true that we have access to more and better data. But we still lack critical information that will produce the real results of improving patient status and lowering costs.

## EMR Adoption Has Expanded Data Collection

In ICLOPS's early days as a data-fueled health care Registry, the search for data was difficult and the numbers were hard to access. Our growing experience with tapping data from multiple small and large systems was essential, at the time, for health systems struggling to collect even the most basic data.

Mass adoption of EMRs has been a boon to analytics companies who now see real data for the first time, as well as to health systems that can finally discover detailed information about their patients. For our Registry, this trend has made performance and outcomes measurement much

easier and faster, while deepening our outcomes improvement solutions. Greater availability of data is fueling the desire for broader aggregation across information systems and across business entities, to develop a more comprehensive view of the individual patient and an understanding of how patients access multiple care points.

With the integration of data sources, such as lab and hospital visit integration in physicians' EMRs, it is also easier to capture most provider-based outcomes for patients and make comparisons across patient groups and across providers.

It's been a stunning transition. From depending largely on billing and claims data, we now have access to patient data that is rich in diagnostic information, patient problems, medications and vitals. We can do some risk analysis and predictions based on real patient data instead of actuarial projections using only demographics and visit statistics. Furthermore, since Medicare and health plans are willing to share claims data under certain circumstances, we also have the ability to see a more comprehensive view of aggregate and individual patient access to services.

### But EMR Data Does Not Tell the Whole Story

Despite these gains, there remains a significant gap in our knowledge about patient status, and this gap hinders our ability to improve outcomes and lower costs. Because the EMR is limited to the provider's record of care, it does not collect other types of essential data needed for improving performance. And even within EMR data, there are some glaring absences:

Clinical information is almost always provider-supplied and will have some elements of bias. Even in patient histories, providers filter information that is recorded. Readings taken only in the office or hospital, provider-reported diagnoses and problem lists, and patient complaints that are presented by the provider—all of these contain an element of provider practice or interpretation. Blood pressure values are a common area of dispute. Practice or hospital values may be much higher than home readings and have a greater variability in technique, incorrectly identifying potential disease. Provider-supplied data limits the scope of information about the patient.

There is no recording of root causes for events. EMR data, while they record an event such as an admission or emergency room visit, do not provide a mechanism to capture the provider's belief of why such an event occurred. This makes it hard to find both systemic and provider-specific reasons, and to address them. Conversely, it leads to blaming the individual provider who is attributed to such events (not fully unjustified) and alienating the provider.

There is a general lack of quantity or scoring of patient-provided data. This can include information on use of alcohol, drugs and supplements, as well as other patient data,

which can influence diagnosis and treatment.

Certain diagnoses are missing, especially mental illness.

Critical staging or other data on acuteness of conditions are often not included, such as cancer staging or ejection fraction in cardiac cases.

Variability in data recorded in structured fields is a significant problem with some EMRs, especially those that allow provider options for selecting code capture (or not), which will result in missing data, or those in which providers can turn off templates and use of structured fields in favor of text.

Intervention measurement is often lacking. Even though treatment decisions are recorded in an EMR, there is almost never any tracking of that intervention to determine either whether an individual patient followed through or the effect of the treatment on the patient or patient population. This is simply beyond the scope of the EMR, which functions primarily to record information and track it for use in future visits, as opposed to perform analyses and research of outcomes.

Some of these issues are more present when an EMR is not well implemented, and concessions have been made to providers that allow more free text options. But even when an EMR is well implemented, there may be other hazards in the data. Too much reliance on templates, for example, leads to use of checked boxes. The result? One patient looks almost exactly like another, and it's all too easy for providers to check off items on the template that are not accurate.

### Patient-Supplied Data Is the Big Missing Link

Even the best data in an EMR cannot account for the other huge gap in EMRs—information that comes from the patient's perspective and not the provider's. This data includes:

Patient circumstances, beliefs and reasons for their outcomes and treatments. For example, patients who cannot afford medicine, have unreported side effects or simply do not believe the physician about their treatments, may not fill their prescription medicines. Failure to capture the reasons for these choices shortchanges solutions by lumping patients together as "non-compliant," rather than addressing or managing the root causes.

Patient-recorded readings from home monitoring devices or home readings. Home-based readings can be a way of identifying true hypertension versus false office readings.

Likewise, continuous readings of blood sugar may better identify the status of home diabetes management. Patients can also report on the results of post-op functionality, pain levels over time, as well as other continuous readings, symptoms and signs.

Patient-attempted interventions to address their situations. Whether this involves the use of supplements, alternative medicine, self-treatment or treatment by other providers, this

data is generally not captured by EMRs—and providers may not even think to ask. But data capture about patient history does matter and will play into the effectiveness of treatments and/or patient agreement with recommended treatments. Is this a data problem or an indicator of a dysfunctional provider-patient relationship? It would be a mistake to generalize. But prior self-guided attempts at recovery are, at a minimum, a gauge of patient concern, as well as some indicator of patient desire for improvement, and should be captured in measurable data.

## Clinical Data Registries Facilitate Capture of Comprehensive Data

In the quest for better outcomes and lower cost, the Clinical Data Registry has two important roles to play. First, the CDR acts as an aggregator of outcomes and cost data from a broader sphere—not only provider source data, but also claims, independent databases and even other reporting registries. In addition, many Registries typically create measures or input mechanisms to capture non-traditional data. This is key for the capture of patient-supplied data.

The EMR cannot fulfill this goal from a technology standpoint, because it is constrained by individual provider usage and includes limited data from other sources. While many EMR vendors are focusing on analytics to provide clinical insights and measurement of patient data, these efforts will fall short of deep-dive data analysis and research simply because the data are not sufficient to support them.

Second, the CDR is a neutral auditor and validator of outcomes data. Because of its role in collecting multiple data streams and reporting performance, the CDR has a solid track record as the arbiter of performance data. As a result, the CDR can occupy the space between providers and health plans by presenting results data to both entities in a way that maintains provider validation and input—similar to how a Registry fills the quality reporting role of Medicare's PQRS program.

This mission challenges the Clinical Data Registry both to add data that can compensate for what's missing in the EMR (such as provider view of root cause), and to capture data beyond provider source data, including claims data as well as various patient-supplied data. While the collection of patient-supplied data is still in its infancy, CDRs can work with their clients to use Internet health care applications, devices and even simple point-of-care tools at provider offices to capture patient data.

To be most effective, Clinical Data Registries will also have to develop their own systems and analytical expertise to accurately evaluate comparative performance in health care. They will need to develop risk adjustment methodology for fair comparison of patients and to establish

predicted costs, establish research designs for testing interventions and engage providers with meaningful interfaces.

Access to more and better health care data is certainly a step in the right direction. But we can—and must—get serious about capturing and analyzing data from all points in the provider-patient spectrum, if we're really serious about improving patient outcomes while controlling costs.

Download your free copy of our new eBook, [\*ICLOPS Value-Based Payment Modifier Primer: How NOT to Forfeit Your Medicare Revenues.\*](#)

*Founded in 2002, ICLOPS has pioneered data registry solutions for improving patient health. Our industry experts provide comprehensive [\*Performance Improvement and Technology Services\*](#) and [\*ICLOPS Clinical Data Registry Solutions\*](#) that help you both report and improve your performance. ICLOPS is a CMS Qualified Clinical Data Registry.*

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