



MEDASSURANT™



CASE STUDY

BEYOND “CLINICALLY ENRICHED ADMINISTRATIVE DATA”: USING PATIENT-SPECIFIC DATASETS TO DRIVE RAPID CLINICAL & FINANCIAL IMPROVEMENTS

There is growing enthusiasm that the addition of clinical data – laboratory results and pharmacy prescriptions – to medical claims data will enable more effective patient management, and open a broader window on the performance of physicians and health care institutions. But these clinically enriched administrative datasets remain, at their core, administrative datasets. Rapid and profound improvements in clinical and financial performance in health care require a more comprehensive dataset – one that is truly clinically enriched through the targeted aggregation and assimilation of the relevant components of the patient’s broader healthcare picture.

BACKGROUND

Pressure to improve the effectiveness of the U.S. healthcare system has never been more intense. On the one hand, the United States spends far more on healthcare than any country in the world. Per capita spending in the U.S. is almost 50% higher than in the next most expensive country¹, but these expenditures are not reflected in improvements in health. Sadly, for example, life expectancy in the United States falls below the median in international comparisons and rates of infant mortality are among the very highest in the world.²

It is broadly accepted that improvements to healthcare require improvements to information flow. At the top of the list is real-time support to clinical decision-makers whose interest in evidence-based decision making requires access to very specific and very detailed information about each patient. There is hope and prospect that, given the provisions of the American Recovery and Reinvestment Act (ARRA), the problem will be solved by Electronic Medical Records (EMRs). But while it is likely that EMRs will be an important part of the health information infrastructure, EMRs are not yet designed to enable data to be aggregated and meaningfully analyzed to provide highly insightful decision-support by healthcare managers – whether institutional leadership or “on the ground” care providers. Furthermore, EMR diffusion in 2009 is still quite limited, so that any “promise” of such functionality remains still yet a promise.

Meeting the needs of those who lead and manage healthcare organizations calls for another kind of solution; a solution that will aggregate a comprehensive set of data both for individual patients and for populations of patients. Such a solution is essential to permit an equally deep understanding of the needs of individual patients whose care must be optimized and individualized if the population problem is to be solved.

For decades, health plans have used claims datasets to attempt to solve these problems – but the limitations of those datasets have been so profound that progress has been quite limited. There is current enthusiasm for the construction of so-called “clinically enriched administrative datasets”³ – health insurance claims merged with laboratory results, pharmacy, and other electronic clinical data. This represents an important step in the right direction, but these datasets alone still do not include information that is critical both to the determination and delivery of optimal care to individual patients, let alone entire populations. Patients are much more complex than their reflections within the stream of claims data – even if that stream is broadened with prescriptions and laboratory results. A deep understanding of patients (the kind of understanding that is needed to deliver highly patient-specific care that is maximally effective) requires patient information not found in the administrative data streams alone. The necessary supplemental information resides in disparate sources of otherwise discordant written medical records, non-interconnected and/or non-searchable EMR

systems, imaging study results, written operative reports, ER visit notes, pathology lab results, echocardiogram reports, and the broad array of similar materials that makeup the billions of biomarkers within the healthcare data landscape. This will continue to be the case until EMRs are much more widely diffused, the contributing content more integrated, and the analytical engines behind them more sophisticated. Historically, the cost of compiling and retrieving such needed data has made the vision of the “complete picture” unrealistic. As a result, much of the most valuable information about a patient has not found its way into analytical databases or is considered to be too expensive to broadly capture. The absence of this detail and granularity within each patient’s dataset has made truly valuable analysis elusive, thereby profoundly limiting efforts to evaluate and improve care.

INITIATIVE

By efficiently combining targeted primary source data from the analog medical record, otherwise non-integrated (or incompletely integrated) EMR systems, and even direct patient interaction with clinically enriched administrative data, MedAssurant has created an ability to achieve “supersets” of data that go far beyond what others have conceived. The key to the construction of these datasets is the ability to identify which data elements would drive significant value, and where in the broader healthcare data landscape (that data which lies beyond the administrative data routinely available to traditional healthcare data analyst initiatives) such high value data resides.

RESULTS

After the analysis of more than 700 million healthcare data elements across millions of members, strong results demonstrate the fact that the achievement of a more comprehensive, patient-specific healthcare dataset empowers a more insightful analysis and more effective intervention solutions.

- Effective Disease Management:** Utilizing highly detailed patient-specific healthcare “supersets” enabled advanced capabilities in patient identification, stratification, and prioritization enabling a new generation of disease management toolsets. Expanded analytical insight enables greater personalization and efficiency of communication and care intervention design. Rather than addressing the needs of large populations homogenously, care managers were able to prioritize and focus on the needs of each individual in that population. These improvements in targeting and individualization of care have led to 15-20% reductions in “inpatient events” (hospitalizations and ER visits, as defined and certified by the Disease Management Purchasing Consortium), and to approximately 10% reductions in associated medical expense – all within 6 to 12 months of patient engagement.
- Quality Improvements:** The highly granular, patient-specific information contained within healthcare data “supersets” has supported breakthrough improvements in quality of care, as organizations have not only more accurate information with which to measure quality, but more useful information with which to improve it. These improvements in quality – for example, 20%-25% increases in the rate at which physiologic control (LDL-C <100; HgbA1c<7.0) is achieved – are valuable achievements in their own right. But for many health plans (operating under contracts for which there are quality-based incentive payments, or in a marketplace where public perception of quality is linked to enrollment and retention), the business consequences have been material as well.
- Improved Financial Performance:** The ability to achieve patient-specific healthcare data “supersets” has made it possible for health plans to more accurately and more completely evaluate and document the disease characteristics of the populations they serve. These, in turn, pay off in planning and resource allocation decisions, as decision-makers have more useful information about the nature and the needs of the populations for which they hold fiscal accountability. It has also helped health plans operating under risk-adjusted contracts (e.g., Medicare Advantage and managed Medicaid) to document the true burden of illness in the populations they serve, so that risk-adjusted revenue is more accurately matched to the resource demands of the health plan membership. ROI gains have been impressive – typically in excess of 8-to-1.

^{1,2} OECD Health Data 2008: Statistics and Indicators for 30 Countries

³ National Voluntary Consensus Standards For Ambulatory Care Using Clinically Enriched Administrative Data. National Quality Forum. <http://www.qualityforum.org/projects/ongoing/enriched-claims/index.asp>

MedAssurant, Inc. focuses on the importance of healthcare data and its ability to drive dramatic, objective improvements in clinical and quality outcomes, care management, and financial performance throughout the healthcare community. Proprietary healthcare datasets, abstraction, and analysis capabilities, combined with a national infrastructure of leading-edge technology, clinical prowess, and deep human resources empowers MedAssurant’s new generation of highly informed solutions.

TURNING DATA
INTO INSIGHT, AND
INSIGHT INTO ACTION™