

# 360° Healthcare BI Solution



BI solutions - HTC's complete healthcare management suite - that includes HMS, LIMS, Payer, Provider, Physician, and Insurance Management

# Data Analytics Gives a 360° Healthcare Business Solution

## Need for Business Intelligence (BI) & Analytics

Data gathered in healthcare organizations is unstructured and anomalous. Harnessing this data will enable healthcare organizations to improve and streamline operating efficiency by improving patient care and patient outcomes, monitoring performance, reducing costs, and achieving better regulatory compliance. BI and Analytics can bring this transformation by uncovering trends and delivering enhanced insights to empower smarter decision-making with a 360° view of performance drilled-down into the granular details at individual level.

### Data Analytics for Healthcare

Healthcare is a trillion-dollar industry in the USA with critical health data. [1] High volumes of data, coupled with diversity and speedy management of data epitomize healthcare organizations. Data Analytics is expected to bring a paradigm shift in the way medicine is practiced. Data Analytics has already made phenomenal difference to healthcare area in bringing to practitioners, payers and providers, insights into clinical decisions and better health practices.

Healthcare business gets a huge number of referrals every month from various sources. This contributes to a major portion of its business. A drastic reduction in this number at a given point or over a period of time is a cause of concern for a healthcare unit. Data Analytics can determine the exact cause of this occurrence, both with out-patient services or with a particular disease condition and treatments. In healthcare industry, any visible change in a normal pattern of patient visits is a reason for worry. Analytics can determine based on patient surveys as to why the number of referrals that come from a large number of separate locations has significant decrease in visits.

Some significant benefits of Data Analytics for healthcare industry

- Improved patient healthcare and lifestyle
- Better care and attention to patients and patient-centric custom-made treatment
- Cost-effective patient care
- Disease outlining to recognize predictive events and support prevention plans
- Analyzing the cost and consequences of treatments to classify the most clinically effective and cost-effective treatments to use
- Implementing advanced analytic systems (e.g., machine learning techniques) for fraud detection and to check the accuracy and consistency of claims

- Patient data is segregated and medical care is precise due to apt medical records that leads to improved patient satisfaction

### Insights on Payers

Identification of Top 10 performers on provider, certainly gives an optimized view of better payers. Advanced Analytics and data representation over BI reporting represents an understanding of health plans and their performance where the traditional lines of ad-hoc reporting between payer and provider are blurred. Advanced Analytics on BI reporting enables inclusion criteria such as a 360° view on patients and diseases, their sufficient claim volume and representative insights that become more prevalent. In our research we observe that, despite market uncertainties, payer performance continues to win. It is very difficult to gather insights without a proper Analytics solution that covers the hot-spots and BI to present the reports. Payer dashboard facilitates to know about the hidden insights on a patient's improvement. Analytics also covers accounts receivable, denial rate, benefit reliability and eligibility accuracy on overall data-set or based on user preferred segmented data set and gives a clear picture through BI.

### Insights HTC's Payer Dashboard can Give

HTC's business-focused dashboard is designed to provide key metrics for payers on getting insights about enrollment by using parameters such as active policy by age, area and product line, and so on. This gives a segregated metrics and



evaluation of each parameter impacting the enrollment. In terms of overall sales, the key parameters such as enrollment of new policies, revenue by channel & region, policy renewal, etc. are analyzed in depth to give insights. The major business-benefit portion is claims. The claims are analyzed by means of cycle time, claim cost, claim status, settlements, denials, etc. that facilitate the healthcare business to stick with the Service Operation Procedures (SOPs) without breaching the business and customer agreements.

## **How Provider Benefits from Payer Analytics**

The dashboard for payer, provider and physician gives better understanding on the level of trust the providers have in their payers. Based on an overall operational performance of payers, an annual payer dashboard report gives the measures to assess the behavioral reliability of payers as perceived by healthcare units, and reveals provider trust of payers. Due to the rapid transition in Healthcare industry for value based reimbursement, the payment system needs to succeed with more complex payment models. It definitely considers performance in this transition. Since complexity, quality and consistency of payers are volatile, payer contingency plans and communication plans need to remain stronger than ever, which can be predicted or analyzed by means of an effective dashboard.

## **How HTC's Provider Analytics Works**

As a part of 360° BI dashboards, provider analytics give insights on Key Performance Indicators (KPIs) for hospitals that include bed occupancy, patient visits, referrals, surgeries performed, mortality rate, operation theater utilization rates, patient demographics, billing and revenue, laboratory metrics, etc. These allow a clear knowledge about the overall utilization of resources and the need to supply where demand arises in the areas of healthcare service or infrastructure needs.

Our provider analytics give clear insight about the provider organizations that can make a business to understand, enable early identification and mitigation of clinical and financial risks.

## **Applying Analytics on Physician Data**

HTC's BI solution focused on physician is designed to provide insights on patient management, insurance, claims and accounts by physicians, adopted procedures and time taken for each procedure etc., by considering key parameters such as service time, schedule efficiency, pre-registration rates, service denials etc. On the other hand, insights on insurance are given based on authorization rate, verification rate, denial rate, write-off rate, account receivables, etc., to give an overall status of the physician related parameters.

## **Our Solution for ACO**

Accountable Care Organization (ACO) is a healthcare organization in the USA that ties payments to quality metrics and the cost of care. [2] This constitutes a payment and care delivery model for hospitals across the US to tie provider

reimbursements to quality metrics and reductions in the total cost of care for an assigned population of patients. HTC's product facilitates calculating and keeping track of 21 ACO Quality Measures stipulated by Medicare based on which the Healthcare facilities receive reimbursements from Medicare.

### Key Benefits from these Solutions

- Facilitates improved patient care along with improved patient safety from immediate access to consolidated diagnostic information
- Shortening of implementation duration
- HIS/LIS measures which cover Operational, Financial and Clinical areas of the organization
- Custom reports and dashboards
- Increased financial oversight from revenue and cost profiles by facility, and department

### Acronyms

\*HMS: Hospital Management System

\*\*LIMS: Laboratory Information Management System

### References

<http://www.forbes.com/sites/danmunro/2012/01/19/u-s-healthcare-hits-3-trillion/>

[https://en.wikipedia.org/wiki/Accountable\\_care\\_organization](https://en.wikipedia.org/wiki/Accountable_care_organization)



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