3rd International Conference on
Diagnostic Microbiology and Infectious Diseases
September 24-25, 2018 | Montreal, Canada

Role of business intelligence analytics in healthcare decision-making

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Statement of the Problem: The role of Business Intelligence Analytics in Healthcare Decision-Making, is significant. There are several Data Governance aspects that need to exist when a healthcare enterprise seeks reliable data and analytics; for decision-making. Accuracy, Availability, Usability, Integrity, Security, Accessibility as well as Data Privacy and Confidentiality; constitute the pieces of the puzzle; and eventually must connect to achieve the complete resulting picture. The purpose of this study is to describe the experience of successfully going through the journey of implementing several Business Intelligence Analytics; related to areas where research and analysis of outcomes for improvement are needed, such as the study of: "Ambulatory Care Services" No-Show patients; within the organization. It was noticed that the number of No Show patients was relatively high and using analytics which categorizes the patients by Gender, Department, Physician and Age Groups, assessment of the existing problem and its root cause was made.

Methodology: An assessment study was conducted to measure the percentage of performance improvement for hundreds of no-show patients; before and after the Analytics was created and utilized; based on making sure that the above Data Governance aspects are all met.

Findings: Based on the utilization of several Business Intelligence analytical dashboards, over several months, there were several measures and action plans taken by the organization which led to the improvement and decrease in the percentage of the No-Shows, from 63% to 56% in one of the organization's hospitals, as well as a decrease from 53% to 43% in a second hospital, within the organization.

Conclusion & Significance: No Show patients, were targeted in the research through Business Intelligence Analytics, in order to identify, analyze, assess and improve the status of these patients. Recommendations were made to ensure that the percentage of Ambulatory Care No Show patients would decrease by end of 2018 to 35%, at least. The impact of the utilization of Analytics is high with such findings.

Biography

Fadwa AlBawardi, MS, provides her perspective as an Acting Director, Data and Business Intelligence Management Department, Information Systems and Informatics Division, within Ministry of National Guard, Saudi Arabia. AlBawardi received her MS in Computer Science at Boston University and has been working in the data warehousing/business intelligence areas for several years.

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