

ANALYTICS FOR HOSPITALS' HEALTH-CARE DATA

- ❖ Real World Solutions (RWS) is a mixed bag of in-depth secondary research combined with descriptive and predictive analytics
- ❖ In the changing landscape of healthcare and life sciences, we have realised that it takes a unique approach to combine scientific intelligence, business insights and reporting services to deliver customised impactful solutions to our clients.
- ❖ Using our strong domain expertise with in-depth therapy area experience across 150+ indications and 15+ rare disease we provide end-to-end business research and reporting services.
- ❖ Recent Covid-19 Pandemic has raised alarms over one of the most overlooked areas to focus: HealthcareManagement.
- ❖ While healthcare management has various use cases for using data science, patient length of stay is one critical parameter to observe and predict if one wants to improve the efficiency of the healthcare management in a hospital.
- ❖ This parameter helps hospitals to identify patients of high LOS-risk (patients who will stay longer) at the time of admission. Once identified, patients with high LOS risk can have their treatment plan optimized to minimize LOS and lower the chance of staff/visitor infection. Also, prior knowledge of LOS can aid in logistics such as room and bed allocation planning.
- ❖ Suppose you have been hired as Data Scientist of Health Man – a not for profit organization dedicated to manage the functioning of Hospitals in a professional and optimal manner.

Goal:

The goal is to accurately predict the Length of Stay for each patient on case by case basis so that the Hospitals can use this information for optimal resource allocation and better functioning. The length of stay is divided into 11 different classes ranging from 0-10 days to more than 100 days.

Technical Architecture:

