**Project Title:** Analytics for Hospitals' Health-Care Data **Project Design Phase-I - Solution Fit** **Team ID:** PNT2022TMID31903

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| **1.CUSTOMER SEGMENT(S)** CS<br>Patient segmentation is usually based on the following elements: the assessment, definition, and operationalisation of population or patient characteristics that are related to healthcare needs, outcomes aimed at when addressing population or patient needs, and the segmentation logic expressing how subpopulations, or patient groups are formed. | **2.JOBS- TO- BE- DONE/ PROBLEMS** J&P<br>Healthcare data analysts oversee hospital data management and analytics. They are responsible for compiling and organizing healthcare data, analyzing data to assist in delivering optimal healthcare management, and communicating their findings with management. | **3.TRIGGERS TO ACT** TA<br>Penn launched trigger system pallitative connect.The system uses a machine learning algorithm that extracts data from patients' EHRs, analyzing around 30 parameters to prepare predictions. Based on the historical and real-time data, ML algorithms can tell clinicians which patient is in the risk zone within several months by sending alerts. That way doctors can proactively respond to the patient's needs |
| **4.EMOTIONS** *BEFORE/AFTER* EM<br>Recognizing the patient's emotions using deep learning techniques has attracted significant attention recently due to technological advancements. Automatically identifying the emotions can help build smart healthcare centers that can detect depression and stress among the patients in order to start the medication early. Using advanced technology to identify emotions is one of the most exciting topics as it defines the relationships between humans and machines. Machines learned how to predict emotions by adopting various methods. In this survey, we present recent research in the field of using neural networks to recognize emotions. We focus on studying emotions' recognition from speech, facial expressions, and audio-visual input and show the different techniques of deploying these algorithms in the real world. | **5.AVAILABLE SOLUTIONS** AS<br>Healthcare providers depend more than ever on digital technologies to ensure accountability of care and efficient management of patient records.*Availability* of critical systems such as electronic health records ,hospital information systems picture archiving and communications systems , and other clinical and administrative applications is paramount. Stratus keeps clinical and administrative applications up and running all the time. We offer a range of flexible that are easy to deploy and manage, and backed by a support structure with a 30-year track record of success. Our solutions can be rapidly deployed in your chosen environment physical, virtualized or cloud without changes to your applications. | **6.CUSTOMER LIMITATIONS** CL<br>Hospitals need data readily available to provide personalised experiences as shown above. The CRM solution should be able to seamlessly talk to the hospital HIS and the Electronic health record of the patient. However, as highlighted in a recent piece in providing this kind of personalisation is challenging.In a traditional context, a CRM solution would involve solutions like giving loyalty or reward points to customers. While loyalty programs do have their role in healthcare, delivering a stellar patient experience is equally important for fostering loyalty. |

## 7.BEHAVIOR BE

Consumer behavior analysis and findings are an important input to the design of health care marketing programs. This paper is an attempt to present a framework for understanding consumer health care behavior, and to present selected findings. The paper concentrates on primary demand aspects and focuses on three types of physician visits: preventive, diagnostic, and therapeutic. A model is presented to predict behavior for preventive and diagnostic situations, and behavior in therapeutic situations is described and analyzed.For a variety of reasons ranging from the purely humanitarian to the purely economic, marketing has become an accepted activity in many health care institutions and settings. The functions that marketing is expected to serve in the health care field are not dissimilar to the functions marketing is expected to fulfill in the commercial sector of the economy. And it is not surprising that the marketing problems faced by many health care institutions are similar to those faced by firms in the commercial sector.

## 8.CHANNELS OF BEHAVIOR CH

Health organizations and patients interact over different communication channels and are harnessing digital communications for this purpose. Assisting health organizations to improve, adapt, and introduce new patient–health care practitioner communication channels (such as patient portals, mobile apps, and text messaging) enhances health care services access.This retrospective data study aims to assist health care administrators and policy makers to improve and personalize communication between patients and health care professionals by expanding the capabilities of current communication channels and introducing new ones. Our main hypothesis is that patient follow-up and clinical outcomes are influenced by their preferred communication channels with the health care organization.

## 9.PROBLEMS ROOT/CAUSE RC

Root cause analysis has important implications in helping healthcare organizations study events that resulted in patient harm or undesired clinical outcomes and identify strategies to reduce future error and improve patient care and safety. Most notably, root cause analysis can help identify medication errors such as illegible handwritten prescriptions, similar name packaging or misleading presentations of drug strength or dosage, ineffective control of prescription labels, and lapsed concentration due to interruptions. Clinician participation in root cause analysis is vital as these initiatives recognize and address important patient care aspects.

## 10.YOUR SOLUTION SL

Providing comprehensive, quality training data. Eliminating bias in data and algorithms.
Developing quality tools while preserving patient privacy. Ensuring providers trust and support analytics tools.