WRITEUP ON DISRUPTIVE INNOVATIONS IN HEALTHCARE

Bhumika Dewangan

1 INTRODUCTION

Innovation is no new phenomenon in healthcare industry but disruptive innovations in healthcare sector is rare.Innovations which have radical change that often becomes new leaders comes in the category of disruptive innovations.Technology is the biggest driver of many disruptive innovations in healthcare since every aspect of healthcare is dependent on some form of tech.

2 INNOVATIONS

- IoT-Our network of connected devices, combined with the internet and the cloud, allows for an astronomical exchange of data to take place. Transferring this data is very easy and convenient. With the addition of big data and AI, automation can be added to assist in the operation and regulating equipment. Every one of these technical innovations — the exchange of data, convenience, and automation — has been lacking in the healthcare industry. The IoT is significantly changing how easily healthcare professionals can communicate and exchange data with colleagues and patients.

- EHR- With the IoT, big data and devices' connectivity provide up-to-date information about a patient. A healthcare provider can instantly pull up an EHR and know a patient's entire medical history and can make accurate diagnosis based on history instantly. EHRs are easing communication between providers, as they are shareable through devices and secure networks.

- SMART WEARABLES-Wearable devices and the IoT allow for remote patient monitoring, meaning that a physician can receive data from a patient's watch to determine their heart rate, caloric intake, and other things that can prevent major health issues. Additionally, those with chronic illness can be monitored at their homes to keep their freedom and spend more time with their loved ones, only coming to the point of care when necessary. This will benefit physicians as well, as they can counsel patients without anyone having to travel.

- AUGMENTED REALITY- Augmented reality is yet another emerging technology disrupting the healthcare industry—augmented reality supplements reality with images and sounds to create its own type of extended reality. Gaming, retail, and education are taking advantage of this new technology, and healthcare is capitalizing on augmented reality for its educational benefits.Additionally, this can be used to show a patient exactly how to apply medication, wash and dress a wound, and other duties that can easily be done by a patient rather than a doctor to prevent further aggravation of the injury. Augmented reality will provide better education leading to preventative health and a reduction in medical error.

- BLOCKCHAIN-One primary concern with the exchange of sensitive and proprietary data is secure. Whether it pertains to patients or professionals, healthcare data could prove to be catastrophic if it falls into the wrong hands. Blockchain can be used to secure any patient data, allowing for easy transferring while at the same time keeping it secure — only allowing those with consent to access it.

- AI AND MACHINE LEARNING-AI applications can manage patient intake and scheduling as well as billing. Chatbots answer patient questions. With natural language processing capabilities, AI can collate and analyze survey responses. AI will probably increase in use as a way to bring down healthcare costs and let doctors and staff focus on patient care. Healthcare leaders must be knowledgeable about the issues surrounding database management and patient privacy.