KUMMARI SUMANTH
21111026

1 DISRUPTIVE INNOVATION IN HEALTHCARE

Innovation is no stranger to the healthcare sector. New therapies, medical devices, and healthcare management practices are adopted all the time. However, up until fairly recently, examples of disruptive innovations in healthcare were far less common. What is disruptive innovation, and what impact do these disruptions have on the healthcare industry? Disruptive innovations are those that cause radical change and often result in new leaders in the field. They overturn the usual way of doing things to such an extent that they have a ripple effect throughout the industry. The following examples of disruptive innovations in healthcare are centered on technology, customer-centric care, and third-party advancements.

2 Technology

Technology is the biggest driver of many disruptive innovations in healthcare since every aspect of healthcare is dependent on some form of tech. From wearables and mobile phone apps

to big data and artificial intelligence (AI) use in diagnosis, any new technology could potentially shake up healthcare.

3 1. Consumer devices, wearables, and apps

In the past, a patient could get only biometric data about their pulse, heart rate, blood oxygen, and blood pressure when they went to the doctor's office. Now, consumers take charge of their own health journey, using data gathered from their Fitbits, smartwatches, and mobile phone fitness apps. Physicians can use the data gathered from these wearables to make treatment decisions, although the vast amount of personal information collected by these apps has led to legal and ethical concerns over data privacy.

4 2. 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.

5   3. Blockchain

Blockchain is a database technology that uses encryption and other security measures to store data and link it in a way that enhances security and usability. This innovation facilitates many aspects of healthcare, including patient records, supply and distribution, and research. Tech startups have entered the healthcare sector with blockchain applications that have changed how providers use medical data.

6   4. IoT

What if public health managers could gather data from wearable devices, thermometers, smartwatches, and various other consumer devices — and then use that data to discover disease clusters and provide care to patients more effectively? That's the vision of the internet of things (IoT). Some of the complex issues surrounding IoT include patient data security and how to define smartwatches — are they consumer products or medical devices that require Food and Drug Administration (FDA) approval?

Consumer-centered care Many examples of disruptive innovations in healthcare pertain to consumer-centered care. With the increasing consumerization of healthcare, the patient-healthcare provider relationship has also undergone radical change. In this arena, the combination of technology and public policy has transformed how patients access healthcare and interact with their healthcare providers.

5. Electronic health records and big data Electronic health records (EHRs) have been a growing part of patient care since the adoption of the Affordable Care Act. The massive amount of EHR data goes far beyond patient health records, however, and can be used to conduct research, improve care, build AI applications, and create new business opportunities. Therefore, healthcare providers have to be aware of the issues surrounding EHR security.

———THE END———