**HW 1: Data Chaos Creates Risk**

1. **What might happen when each line of business, division, and department develops its own IT apps?**

Ans: With the advance in technology, the importance of storing data has increased gradually. It has always been better to store data as a soft copy rather than pile of files stacking on top of each other i.e. hard copy. This system of storing data with the help of technology has proved fruitful but the problem arises when it is not managed properly.

If each line of business, division, and department develops its own IT apps then the chances of data not to be found is more as there would be so much irrelevant data. There are two sides to this problem; firstly, when IT apps are developed for a single entity and data is stored at a single place then the risk of data getting leaked by hacking and other such activities is more but the second problem arises when there are different IT apps for separate lines and the data is not managed properly which ultimately leads to data chaos. We may consider second approach to be safer since the data is distributed which makes is less vulnerable to hacking and other such activities but this also leads to increase in irrelevant information which directly or indirectly affects the final consumer. If the IT apps are developed and managed properly for each line of business, then it would be beneficial to the organization’s reputation as well as to the final consumer.

**2. What are the consequences of poorly managed apps?**

Ans: Poorly managed apps can lead to data chaos. Irrelevant data can be created because of this mismanagement which can lead to medical errors in case of hospitals. This can also lead to various other risks such as loss of relevant data, inaccurate data, data stolen etc. Overall, this can affect the organization and its reputation as well as the final consumer which can lead to loss in business and various other legal issues. Therefore, it is very important to manage apps in a very efficient way.

**3. What are the two risks posed by data chaos? Explain why?**

Ans: Two risks posed by data chaos are:

1. Faulty data: This risk is associated with Electronic Health Records (EHR’s). If the entry recorded in EHR is faulty then it may harm the patients and the organization as well. As mentioned in the case “According to research done at Columbia University, data in EHR systems may not be as accurate and complete as expected (Hripscak & Albers, 2012).” Other things related to medical errors are physician documentation, incorrect lab values, imaging results etc.

2. Data Breaches: Breaches occur usually because of lost or stolen data on various electronic devices which breaks the trust any consumer has on an organization. It is important to manage data efficiently by reforming data governance programs. Data breaches are very important to be taken care of or else it would take the whole system down and it is also important that any changes to be made are done by authorized personnel.

**4. What are the functions of data governance in health care sector?**

Ans: The function of data governance are as follows:

1. To govern the rapidly evolving IT investments and tools by Healthcare Information & Management(HIM) policies.

2. To make electronic medical records less vulnerable to hacking.

3. To keep the medical center at par with the new uses of electronic information.

**5. Why is it important to have executives involved in data governance project?**

Ans: It is important to have executives involved in data governance project because the executive committee can look after the overall working of the healthcare system and standardizing health record practices, minimizing risk, as well as maintaining compliance. These executives will have the required knowledge to improve the system of data storage since they will be a part of the system. The members of this committee according to the case, include chief medical information officer (CMIO), CIO, legal counsel, medical staff, nursing informatics, HIM, administration, risk management, compliance, and accreditation. In addition to this, the executives will work on removing duplicate medical records and policies for data management and compliance.

**6. List and explain the cost of data failures?**

Ans: The costs incurred due to data failure are:

1. Rework: If for instance the medical records in the system are not up to date or are not entered correctly then it may take a lot of time to correct or update them.

2. Loss of business: If due to some mismanagement any consumer is harmed then that affects the business and reputation.

3. Patient safety errors: Misinterpretation of data may affect a patient’s safety and be harmful to them.

4. Malpractice lawsuits: Any malpractices by healthcare industry in case of data loss or data breach etc. can lead to lawsuits by the party affected.

5. Delays in receiving payments because billing or medical codes data are not available.

**7. Calculate the CIDDA over time:**

**Q1: G = 40%, M = 50%, TS = 20%** CIDDA = G x M x TS

Ans: 40% x 50% x 20% = 4%

**Q2: G = 50%, M = 55%, TS = 30%** CIDDA = G x M x TS

Ans: 50% x 55% x 30% = 8.25%

**Q3: G = 60%, M = 60%, TS = 40%** CIDDA = G x M x TS

Ans: 60% x 60% x 40% = 14.4%

**Q4: G = 40%, M = 50%, TS = 20%** CIDDA = G x M x TS

Ans: 60% x 70% x 45% = 18.9%

**8. Why are data the most valuable asset in healthcare?**

Ans: Data in healthcare is the most valuable asset because of its importance. Without data, the healthcare system would collapse. The data holds the medical records, patient’s previous history, new discoveries which are sometimes found through practical application, for e.g.; during an operation, etc. If data whether in physical format or electronical is not provided, then it may become difficult to solve a patient’s problem. In other words, the data in healthcare deals with a person’s life and any minor changes in data can be harmful to that person as well as to the healthcare organization.