# Week 2 Group Case Assignment

# Capstone Case: New Century Wellness Group

**Task 1**

1. Health information management is a rapidly-growing sector that directly affects healthcare costs. Every specialized area has its own vocabulary, and health information management is no exception. Conduct an Internet search to learn about Electronic Medical Records (EMR), Computerized Provider Order Entry (CPOE), and a Clinical Decision Support System (CDSS).Describe your findings, using nontechnical language that is easy to understand.

•**Electronic Medical Records (EMR):** It is the digital version of a paper chart in a clinician’s office. It contains all the information of patients in one practice such as medical and treatment history. It is more useful than paper records because it allows clinicians to track the data over time, identifies patients who are due for preventive visits and the screenings, monitor how patients measure up to certain parameters, such as vaccinations and blood pressure readings and improves overall quality of care in a practice.  
  
•**Computerized Provider Order Entry (CPOE):** This replaces hospitals paper based ordering system. It allows users to write orders electronically, maintains online medication administration record and reviews if any changes made to an order by successive personnel. If any unsafe orders are entered it give alerts. When these systems are designed correctly it increases efficiency and improves patient safe and care. Currently available CPOE systems require lot of time and effort during customization before their clinical support and safety features can be effectively implemented.  
  
•**Clinical Decision Support System (CDSS):** This provides patients, clinicians, staff and others with knowledge and person specific information presented at appropriate times to enhance health care. It has different tools to enhance decision making in the workflow. These tools has reminders and computerized alerts to care patients, guidelines, patient data reports and summaries, diagnostic support and document templates.  
  
**Task 2**

2. You are planning a preliminary investigation of Dr. Jones's request. For each step, describe the steps you will take, the methods you will use, and the information you will seek. Also explain how you plan to define the project's scope and why this task is so important.

To have a clear view, I will review the organization chart so that I can understand how many persons are there and how do they communicate with each other. Gathers information regarding their systems by interacting with their employees such as what problems they faced. After collecting the data from employees, I would analysis the problems and suggests the best solutions to fix those problems. The different steps to do preliminary investigation are:

**Step1:** In the first step understand the problem of the clinic and develop a business profile to find out which departments, users and processes are involved.

**Step2:** In the second project scope should be explain the project scope and constraints like hardware, software, time and costs involves.

**Step3:** In the third step view the organization charts, conduct interviews and observe documentations and operations.

**Step4:** In the fourth step determine the feasibility.

**Step5:** In the fifth step estimate the time and cost to complete the new system development process.

**Step6:** In the sixth step results and recommendations to the clinic.

**Task 3**

3. Based on what you know about New Century, conduct a feasibility study that includes operational, technical, economic, and schedule feasibility. Describe the results in detail, and explain how you reached your conclusions.

During the feasibility study, series of tests are conducted according to the system requirements and check whether it is good and comfortable to carry on further development process. In order to evaluate the feasibility study questions should be asked about the current systems to the staff. Feasibility study includes operational, technical, economic and schedule feasibility.

**Operational Feasibility:** Operational feasibility means that proposed system will be used productively after it is developed. A system should be developed which combines EMR, CPOE and CDSS systems. If users faces any problems with the new system, it will not give the expected results. Therefore after reviewing the user demand, system should be developed and implemented so that the system will be used more efficiently.

Technical Feasibility: Technical feasibility means the resources required develop, purchase, install and operate system. When evaluating the technical feasibility analyst should ask the management whether they can manage the resources, hardware and software to implement the system.

**Economic Feasibility:** Economic feasibility means that the estimated benefits of proposed system will be more than the estimated costs i.e. total cost of ownership, which includes maintenance and support costs. During the development and implementation process the estimated prices can be increased or decreased

**Schedule Feasibility:** Schedule feasibility means that a project can be implemented in a reasonable time frame. During the evaluation time analyst must consider time and cost. By revamping the current system new features can be added and this reduces the time and cost. During the evaluation of feasibility identify the system requests which are not feasible, sometimes during the development time cost and time may increase or decrease. Therefore it is an ongoing procedure which should be performed throughout the development process.

**Task 4**

4. Prepare a brief preliminary investigation report for Dr. Jones. Before you begin this task, you should review the sample report in this chapter, and visit Part A of the Systems Analyst's Toolkit, which provides suggestions for oral and written presentations.

I should understand the clinic organization structure by collecting the information from the human resource department, doctors and other staff who are involved in the administration duties by interviewing them. Collects the documents regarding current systems, asks the users about systems and observes the system operations. After that I should recommend a system which combines all the elements of their day to day activities and prevents them from errors and which is easy during the training process for the staff.

**Preliminary Investigation Report: Medical Practice Software June 23, 2021**

**Introduction**

IT Consultant Sultana Rafique, IT department completed a preliminary investigation of the existing system on June 23. The investigation was the result of systems request submitted by

Dr. Jones, Founder, New Century Wellness Group, on June 19.

**Systems Request Summary**

Problems mentioned in the request: The existing system is mix of paper-based and fragmented computer systems. And looking for a medical practice software solution that allows each office worker to conduct their job more efficiently.

**Preliminary investigation findings:**

* Often a patient no-shows for their appointment, it may cause practice partner time wastage. Getting patient’s demo-graphic information, medical history, and insurance information is the initial step.
* The providers would enter any orders or prescriptions into the EMR with the CPOE system. Patients often schedule a follow-up appointment before leaving the practice office.
* Staff needs to orders any supplies needed to replace items used by the patient. Making sure patients record are complete.
* Staff members are spending long time on tasks using paperwork. Billing to patient’s insurance provider for services that were rendered to the patient.
* Follow up on the billing to ensure the practice is getting paid for all claims Payers reimburse claims often take long time
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* The process of hiring new employee and their training is long process.

**Recommendations**

* Medical practice software with a patient portal lets patients log in and view their health history, diagnoses, prescriptions, bills and other important information is recommended.
* It allow physicians and office staff to quickly book and confirm appointments and manage schedules across multiple providers, and days of the week.
* It also allow patients to book their own appointments online. Medical practice management systems also automatically verify a patient’s insurance coverage prior to the patient’s visit. The system scans bills and claims to ensure that they not only follow payer regulations but also include correct diagnosis codes.

**Time and Cost Estimates**

The time for the requested System may take around $ 40,000k

The time period required is 6 months.

**Expected Benefits**

Proposed Medical Practice Software will reduce the workload of staff, increase the productivity, for future growth it provides scalability.