**Web-Based Maternal Health Record Tracking System**

***Problem and Gaps in the Literature***

Maternal health, which encompasses the state of a woman during pregnancy, birth, and postpartum, is a critical aspect of public health. Effective monitoring and management of maternal health are necessary due to the significant impact the mother's welfare has on the child's wellness. Despite technological advancements in web-based health record management systems, which provide real-time access to patient information, facilitate communication among health workers, and ensure data accuracy and security, these systems remain challenging to implement and maintain, especially in low-resource settings. In regions like the Philippines, traditional paper-based record systems are still prevalent, leading to inefficiencies, loss, and difficulty in accessing records across facilities. This fragmentation in care results in poor outcomes for mothers and babies, as delayed diagnosis and treatment of maternal complications contribute to higher maternal and neonatal mortality and morbidity rates​

Existing research and technological developments in maternal health record tracking systems have shown promise in improving maternal health outcomes. However, there are significant gaps, particularly in the context of low-resource settings such as rural and remote areas of the Philippines. Many studies focus on the benefits of web-based health record systems without adequately addressing the challenges of infrastructure, internet access, and the lack of professionally qualified healthcare personnel. Furthermore, there is limited literature on the integration and sustainability of these technologies within local healthcare workflows, especially in regions like Tanauan, Leyte. Most research does not consider the specific needs and challenges faced in these areas, such as the continuity of care and the practicalities of implementing such systems in environments with limited resources. Consequently, there is a need for localized studies that explore how web-based maternal health record systems can be effectively integrated and sustained in low-resource settings​

***Solution to the Problem***

The proposed solution is to design and develop a web-based maternal health record tracking system tailored for the community of Tanauan Leyte. This system aims to address the local challenges and improve the quality of maternal healthcare by facilitating the recording, updating, and tracking of maternal health information. Key functionalities include an archival feature for appointments and maternity details, an appointment system for prenatal and postnatal schedules, and a calendar for tracking these appointments. By digitizing and centralizing maternal health records, the system will enhance the accessibility and accuracy of patient information, enabling healthcare providers to make informed decisions promptly and provide better quality care. This solution considers the practical concerns imposed on rural and isolated communities, ensuring that the system is user-friendly and adaptable to the local context​

***Significance of the Project***

The Web-based Maternal Health Record Tracking System for Cumpio Midwife Clinic will be a big help in managing the information and records of expectant women, digitally. Specially, the system will be beneficial to the following:

Health Care Providers. This study will help health providers have easy access to comprehensive maternal health records, thereby helping nurses, midwives, and staff to offer better quality care. Having real-time access to patient data puts the providers on an upper hand in making informed decisions within the shortest time, hence allowing timely interventions that aid better health outcomes for mothers and babies.

Expectant Mothers. The study will give much help in order to achieve the goal of more consistent and tailored care, so expectant mothers will be healthier during pregnancy. It will enable tailored health plans, proactive monitoring, and ensure mothers get the proper attention and resources during this pregnancy journey.

Healthcare Institutions. The implementation of this system, will help improve record-keeping and patient management in clinics and hospitals, hence increasing operational efficiency. Streamlined processes reduce administrative burdens, improving accuracy and promoting good communication among the health teams for an effective healthcare environment.

Future Researchers. This project is going to be useful as a case study, entailing data to offer for further studies aimed at evaluating the performance considering web-based health record systems. One would be in a position to assess the extent to which predictive analytics are integrated into healthcare and how this can improve maternal health tracking—in essence, healthcare delivery systems.

Here are possible questions and answers regarding the proposed capstone project, "Web-based Maternal Health Record Tracking System," with the answers

1. What is the primary goal of the Web-based Maternal Health Record Tracking System?

Answer:

The primary goal of the Web-based Maternal Health Record Tracking System is to develop and implement a system for managing and monitoring maternal health records in Tanauan, Leyte. This system aims to improve the quality of maternal healthcare by ensuring accurate, real-time data access and facilitating better communication among healthcare providers.

2. What are the specific objectives of this project?

Answer:

The specific objectives of the project include developing functionalities for recording and updating maternal information, enabling the tracking of maternal health records for expectant mothers, generating graphical reports to monitor the number of pregnant women, providing an archival system for appointments and maternity details, incorporating an appointment system for prenatal and postnatal schedules, and creating a calendar for tracking appointment schedules.

3. Why is this project significant for Cumpio Midwife Clinic and the community of Tanauan, Leyte?

Answer:

The project is significant for Cumpio Midwife Clinic and the community of Tanauan, Leyte, as it will improve the management of information and records for expectant women, making data more accessible and reliable. This system will enable healthcare providers to make informed decisions promptly, thus offering better quality care. Additionally, it will foster more consistent and individualized care for expectant mothers, contributing to healthier pregnancies. The system will also enhance operational efficiency and communication within healthcare institutions and serve as a case study for future research, potentially influencing policy and resource allocation toward reducing maternal mortality and morbidity.

4. What are the challenges faced in implementing web-based health record systems in low-resource settings?

Answer:

Implementing web-based health record systems in low-resource settings presents several challenges, including inadequate infrastructure and internet access, lack of professionally qualified personnel in healthcare, issues related to patient data security and privacy, difficulties in integrating the system with existing healthcare processes, and limited training and capacity-building opportunities for healthcare providers and local stakeholders.

5. How does this project address the specific needs of rural and remote areas in the Philippines?

Answer:

The project addresses the specific needs of rural and remote areas in the Philippines by focusing on localized systems that can operate effectively despite infrastructure and resource limitations. It ensures that the system is accessible and usable in low-resource settings and provides real-time data entry and retrieval features to enhance the continuity of care. The project also addresses the issue of fragmented care by ensuring comprehensive and easily accessible health records.

6. What are the expected benefits of implementing this system for healthcare providers?

Answer:

Healthcare providers will benefit from the system through easy access to comprehensive maternal health records, improved decision-making capabilities due to real-time data access, and an enhanced ability to offer timely interventions, leading to better health outcomes for mothers and babies. Additionally, the system will reduce administrative burdens and improve the accuracy of record-keeping while facilitating better communication and coordination among health teams.

7. What limitations does the study acknowledge?

Answer:

The study acknowledges several limitations, including potential biases and inaccuracies due to self-reported data from patients and healthcare providers, the localized scope of the study which may not capture all dimensions of maternal wellness in other parts of the Philippines, a short timeframe for project completion, and limited opportunities for training and capacity-building due to resource constraints.

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