



A Framework for Developing a Maternal Health Informatics System for an Urban City in the Philippines

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Abstract: This paper provides a framework for developing a Maternal Health Informatics System (MHIS) for the use of health centers in an urban city in the Philippines. It introduces the use of Information and Communications Technology (ICT) in helping health centers solve maternal health care problems. The current prenatal and postnatal care processes of the health centers in the pilot city were studied through interviews with different health professionals and expectant mothers in order to identify problem areas. Benchmarking from various maternal health ICT solutions was done to identify important system modules and features and assess the appropriate tools to develop the system. Lastly, concepts, systems theories, and models such as the Kaiser Integrated Healthcare Model, Health Belief Model, and Care Model were used to develop the framework. The framework provides three system modules namely: 1) Patient Health Monitoring, 2) Referral, and 3) Pregnancy App/SMS. The Patient Health Monitoring module has five main features: electronic patient records, queuing, risk assessment, medical mapping, and statistics and health reports. The Pregnancy App/SMS has nine main features for the pregnancy app: health records, pregnancy timeline, weight status, symptom checker, journal, FAQ, media gallery, medical dictionary, and nutrition guide; and two features for the SMS: health inquiry and reminders. All the said modules are integrated to produce information that will be used for decision-making purposes.

Key Words: maternal health; health informatics; Information and Communication Technology; information system; framework