**Chapter 1**

**THE PROBLEM AND ITS BACKGROUND**

**Introduction**

School gives off services to the benefit of the people working and studying in it. A school is an institution made to provide learning and ensure the safety of everyone to some inevitable events. School services are the programs of the organization that will serve as a safeguard, protection, healer, and provider in any situation done inside the school to avoid the occurrence of danger or harm. School services make sure that everyone will experience safety and enjoy the things they will experience in learning. Since schools bring large numbers of students and staff together, prudence dictates that—as in any workplace—a system must be in place to deal with such issues as first aid, medical emergencies, and detection of contagious conditions. A school clinic service should be established to delivery systems necessary to monitor the health of students.

School clinics are primary care clinics based on school campuses.  Most school clinics provide a combination of primary care, mental health care, substance abuse counseling, case management, dental health, nutrition education, health education and health promotion. An emphasis is placed on prevention and early intervention. School clinics generally operate as a partnership between the school and a community health organization, such as a community health center, hospital, or the government’s Department of Health (DOH).

School clinics are an essential part of the school because they help prevent and reduce student absences in the educational institutions they are placed. The primary purpose of a school clinic is to ensure that students are healthy while maintaining good attendance. A school clinic provides direct care to students, maintenance of the facility of health services, screening and referral for health conditions, promotes health, and serves as a connection between parents, students, teachers, health care professionals and the larger community. They should provide certain services that meet the minimum requirement of the DOH.

In every school, it is vital to have a system that tracks the medical transactions of its students. With a medical record system, you can gather and manage all that information in one easily accessible location. Having right mental and physical fitness of the students is an important consideration for any school. They have to take many health-related measures, however, at times recording it rightly and compiling becomes a big challenge. Having a school clinic healthcare management system is one suitable answer for this concern. School can record complete health records of every student that includes medical history and vaccination records. However, school cannot just record the list of every student’s condition but must also record contact details of teachers, parents and guardians in a wake of medical emergency.

**Statement of the Problem**

Medical emergencies can occur any time, particularly in the school. To meet many types of urgencies such as medical checkups or other service on the regular basis, right clinical management is essential. The student health records management system is designed to maintain the precise record of medical and health data.

The needs for school health services are immense. The benefits of school health service systems range from its quick responsiveness to health issues to the equity it provides to its benefactors and the effectiveness of the programs it oversees. Under concrete health system objectives, evidence suggests, school health services have the potential to perform well with the integration of an effective information management monitoring and notification system.

**Background of the Study**

The EARIST Clinic was established at the school site to promote the health of students through disease prevention, early case finding, referral for intervention and remediation of specific health problems. The school health services are vitally necessary in order to provide first aid and triage for illness and injuries, to provide direct services for students with special needs, and to provide health counseling and education for students.

The school clinic aims to ensure access to primary health care, provide a system for dealing with crisis medical situations, provide health screening, and provide systems for identification and solution of students' health.

Both Commission on Higher Education (CHED) Memorandum Order No. 21 Series 2000 (“Guidelines on Student Affairs and Services”) and Memorandum Order No. 09 Series 2013 (“Enhanced Policies and Guidelines on Student Affairs and Services”) stipulate that student health services be included among the Student Welfare Programs and Services of HEIs. Guidelines apply to both public and private HEIs. Details of the stipulations on the required health services are the following (CHED 2013):

“Section 27. Health Services – refers to the provision of primary health-care and wellness program.

27.1 The Higher Education Institution shall provide primary healthcare services administered by licensed medical, dental, and allied professionals to all students.

27.2 There shall be adequate facilities for health care and updated health records, including disability records for students with disabilities, that are kept and maintained as required by the Department of Health and other related agencies.

27.3 There shall be mechanisms to promote a healthy lifestyle such as, but not limited to, healthy diet, physical activities, and no smoking and drinking of alcoholic beverages and substance abuse, and to provide a healthy environment not only inside the campus but also outside the school premises.

27.4 The school shall provide policies and an environment that will enable the practice of healthy lifestyle.”

**Purpose/Project Objectives**

Individuals involved in healthcare acquire and generate a significant amount of personal health information. The scope of health information includes not only personal information and private health data, but also clinical notes, medical histories and other pertinent health information.

As technology has developed, it has greatly increased the potential for reliability, speed, efficiency, and usability of medical records. As technological advancements outpaced the traditional policies on medical records, it became necessary to define healthcare information management and notification system.

This project is developed to achieve the following objectives:

1. Identify and address the problems associated with the use of the existing system of the school clinic on data gathering, processing, monitoring and coordination;
2. Develop a system that will strengthen students’ health information database which will provide for an efficient, reliable and timely provision of health services;
3. Develop a system that serves broader objectives, such as providing an alert and early warning capability on health conditions and supporting communication process between students, teachers, parents and guardians; and
4. Ensure that the proposed system observes the International Standardization Organization (ISO) 9001 on software development.

**Significance of the Study**

Health information management systems tend to target efficiency and data management. The main drivers of health information systems are:

1. Data analytics: The healthcare services of schools constantly produce data. Health information systems help gather, compile and analyze health data to help manage students’ health. Relative thereto, healthcare data analysis can improve student care.
2. Collaborative care: Students may need treatments from different healthcare providers. A quality data can be an effective source of health record between the school clinic and other healthcare providers.
3. Cost control: Using information management system on healthcare data creates efficiencies and cost savings without compromising efficiency and quality of health records.
4. Student population health management: Health information systems can aggregate patient data, analyze it and identify trends in target populations. Corollary, the technology also works in reverse. Clinical decision support systems can use big data to help diagnose individual patients and treat them.

**Scope and Delimitations of the Study**

This study focuses on the processes and data management of EARIST Clinic. The data collection will be conducted based on the available information as provided by the EARIST Clinic, from logging in of patients, to consultation and records management. However, due to data privacy, we will focus on the assumption that all clinic records are freely available.

Participants in this study shall be limited to the school clinic’s physician, nurses and staff. Likewise, the proponents shall determine whether the proposed system was able to address various identified issues with the current system of the school clinic and whether proposed system is compliant with ISO 9001 on software development.

ISO 9001 provides a model for a quality management system which focuses on the effectiveness of clinical, business and support processes to ensure high quality care is provided. The standard promotes the adoption of a process approach emphasizing the requirements, added value, process performance and effectiveness, and continual improvement through objective measurements.