

# **Computing for Human Services**

**Chief Editor**

**Shihab Ahmed Hameed**

*Electrical and Computer Engineering-IIUM University*

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## Chapter 20

### Fundamental to Medical Data Centers

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#### 20.1. Introduction

Medical data centre is a place where medical data and health information can be stored and processed in electronic forms. Medical data centres serve as repositories of health care information that is obtained from a variety of sources. One of the advantage of medical data centres is that will contain comprehensive data about the health status of individuals on an information super highway, along with data about health resources, individual financial status, and consumer satisfaction studies. Although collecting health information in a central system has several advantages, it also raises some issues regarding privacy. Protecting the privacy of patients has been an important part of physicians' code of conduct. Over time, health information has come into use by many organizations and individuals who are not subject to medical ethical codes, including employers, insurers, government program administrators, attorneys and others. As uses of medical information multiplied, so have regulatory protections for this highly sensitive and deeply personal information.

The regulatory regime for protecting privacy of health information is complex and fragmented. Some protections apply only to information held by government agencies. Some protections apply to specific groups, such as federal employees or school children. Some protections apply to specific medical conditions or types of information, such as information related to HIV/AIDS or substance abuse treatment. The first comprehensive set of federal regulation of health information, the Privacy Rule under the Health Insurance Portability and Accountability Act of 1996 (HIPAA), came into effect in April 2003. The Security Rule, also required under HIPAA, was issued in final form on February 20, 2003 and will become effective in 2005.