

With this general explanation of the SDLC established, we begin by focusing on the first two phases—the planning and analysis phase and the design phase. Together they constitute what we refer to as the **system acquisition process**.

SYSTEM ACQUISITION PROCESS

To gain an understanding of and appreciation for the activities that occur during the system acquisition process, we will follow a health care facility through the selection process for a new or replacement information system—specifically, an electronic health record (EHR) system. In this case the organization, which we will call Valley Practice, is a multi-physician primary care practice that is looking to replace its current EHR system with a new one. (Note: This process is applicable to other any other type of HCIS system project. The individuals involved may differ, however, if it is a clinical project versus an administrative one.)

What process should the practice use to select the EHR? Should it purchase a system from a vendor, contract with a vendor for cloud-based services, or seek the assistance of a system developer? Who should lead the effort? Who should be involved in the process? What EHR products are available on the market? How reputable are the vendors who develop these products? These are just a few of the many questions that should be asked in selecting a new HCIS.

Although the time and resources needed to select an EHR (or any health care information system) may vary considerably from one setting to another, some fundamental issues should be addressed in any system acquisition initiative. The sections that follow the case study describe in more detail the major activities that should occur (see Exhibit 7.1), relating them to the multi-physician practice scenario. We assume that the practice wishes to purchase (rather than develop) an EHR system. However, we briefly describe other options and point out how the process may differ when the EHR acquisition process occurs in a larger health care setting, such as integrated health system network.

It is also important to note that the ownership and/or corporate structure of the health care organization can influence what IS decisions are made at the institution level, and what decisions are made at the corporate or “system” level. For example, a for-profit hospital that is corporate owned (e.g., HCA) will likely make IS replacement decisions at the corporate level, not institutional level. Likewise, the Veteran’s Administration (and Department of Defense) decision in recent years to replace its homegrown Vista EHR with Cerner Corporation’s EHR was made at the federal level. The new EHR will be implemented at all facilities within the VA and military health settings. Even in cases where a larger health care network acquires smaller community hospitals or buys physician practices, the health care executive team often explores strategies to standardize major applications

EXHIBIT 7.1 Overview of system acquisition process

- Establish project steering committee and appoint project manager.
- Define project objectives and scope of analysis.
- Screen the marketplace and review vendor profiles.
- Determine system goals.
- Determine and prioritize system requirements.
- Develop and distribute a request for proposal (RFP) or a request for information (RFI).
- Explore other options for acquiring system (e.g., leasing, contracting with cloud-based vendor, hiring system designer, building in-house).
- Evaluate vendor proposals.
- Develop evaluation criteria.
- Hold vendor demonstrations.
- Make site visits and check references.
- Prepare vendor analysis.
- Conduct cost-benefit analysis.
- Prepare summary report and recommendations.