

## **B.2. Information Systems and Technology Implementation Issues**

There is a great deal of literature available on the topic of IS&T planning and implementing, and it is not in the scope of this manual to go into the details of the systematic process required by those activities. On the other hand, it is useful to cover the most important elements of planning that are special to the implementation of the health services systems proposed herein, especially to implementations in the Latin American and Caribbean Region, and other elements deemed to be particularly significant and insightful.

### ***B.2.1. Project Management Methodologies***

The purchase or development and subsequent implementation of information systems requires the effective use of project management methods or techniques in order to increase the possibility of a successful outcome. In this brief overview of project managing information technology and systems in health care, a range of general project management principles are outlined and advice is provided on their use.

Reference is also made to a specific project management method known as *Projects in Controlled Environments* (PRINCE<sup>®</sup>). This is the standard project management method for United Kingdom government IT departments and the U.K. National Health Service (NHS) and is approved by the U.K. Central Computer and Telecommunications Agency (CCTA). The latest version of PRINCE is suitable for all types of projects large and small and because the PRINCE method is in the public domain its use is free. It is also scalable so more or less of the method can be used based on the cost or importance of each project to the organization. Details on how to find more information about PRINCE can be obtained from CCTA, Steel House, 11 Tothill Street, London SW1H 9NF, or via the Internet at the address <http://www.ccta.gov.uk/prince/prince.htm>

For an in-depth study of project management issues and methodology it is recommended that managers read "A Guide to the Project Management Body of Knowledge", 1996 Edition. Project Management Institute (PMI), which can be downloaded from <http://pmi.org/>

#### **B.2.1.1. What Is a Project?**

Organizations perform work. Work generally involves either operations or projects, although the two may overlap. Operations and projects share many characteristics and they are:

- Performed by people
- Constrained by limited resources
- Planned, executed, and controlled

Operations and projects differ primarily in that operations are ongoing and repetitive, while projects are temporary and unique. A project can thus be defined in terms of its distinctive characteristics — *a project is a temporary endeavor undertaken to create a unique product or service*. Temporary means that every project has a definite beginning and a definite end. Unique means that the product or service is different in some distinguishing way from all similar products or services.

Projects are undertaken at all levels of the organization. They may involve a single person or many thousands. Projects may involve a single unit of one organization or may crossorganizational boundaries, as in joint ventures and partnering. Projects are often critical components of the performing organization's business strategy. They share a certain set of characteristics:

- Are focused on a specific or set of outcomes or deliverables.
- Have an organizational structure, e.g., a Project Committee, Project Team, etc.
- Impact on a range of departments within an organization.
- Bring about a change in the organization.
- Have a number of constraints such as an imposed start or end date, money available, and resources (people and equipment) available.

Projects involve doing something that has not been done before, therefore unique. A product or service may be unique even if the category it belongs to is large. For example, many thousands of office buildings have been developed, but each individual facility is unique — different owner, different design, different location, different contractors, and so on. The presence of repetitive elements does not change the fundamental uniqueness of the overall effort.

### **B.2.1.2. Why Do Some Projects Fail?**

Many reasons can be cited for why projects do not succeed. Some of the more common reasons include:

- A proper business case is not established at the outset.
- Inadequate identification of the desired end product(s) of the project.
- Scoping of the project is not carried out properly.
- Identification and control of all activities is not adequately addressed.
- The estimate of the effort required for project work is inaccurate.
- No allowance is made for interruptions and non-project activities.
- Change control is not handled effectively.
- Little or no effort is made to identify and manage risk.

### **B.2.1.3. What Is a Successful Project?**

A project is deemed to be successful if it is completed on time, on or below budget, and provides all the required products or deliverables to agreed quality standards.