9.3.1

Chief Information Officer

It is generally useful to centralize responsibilities for information management in one role.

This role is usually called **chief information officer** (**CIO**); but the role is also often called

**vice president (or director) of information systems (or information services, information**

**management, information and communication technology, information resources) or chief**

**of information services.**

The **CIO** bears the overall responsibility for the strategic, tactical , and operational

management of the information system and the budgetary responsibility, and has the

authority for all employees concerned with information management. The specific position

of the **CIO** demands dedicated professional skills. Of course health/medical informatics

competencies are required. But additionally more general executive and managerial

competencies, and business and economic competencies are necessary as well.

Depending on the size of the *hospital*, the role and the tasks of a **CIO** may be performed by

one dedicated person (e.g., a full-time health/medical informatics specialist) or by a highranking

member of the **hospital’s board** (e.g., the **chief executive officer**, **CEO**). The **CIO**

may be supported by an **information management board**. Such a board can often be found

in larger *hospitals* (Fig. 9.7 ). Members should include one representative from the **hospital’s**

**board of directors**, representatives from the main departments and user groups, and

the **director of the information management department** (see Sect. 9.3.2 ) if this director is

not the **CIO** simultaneously. If no dedicated **CIO** position exists, the president of this board

can be regarded as the **CIO** of the *hospital*.

The **CIO** should report directly to the **CEO** or the **hospital’s board of directors** and,

therefore, should be ranked rather high in the hospital’s organizational hierarchy, optimally

as a member of the **top management** team of the hospital. The **CIO**’s role

should be a strategic one that comprises the following tasks of strategic information

management :

• make or prepare all relevant *strategic decisions* on the *HIS*, especially with respect to

infrastructure, architecture, and information management organization;

• align the *hospital’s business plan* with the *strategic information management plan*;

• establish and promote the *strategic information management plan*;

• initiate and control projects for tactical information management ;

• initiate *HIS* *evaluation studies* and adequate *HIS* monitoring activities;

• identify and solve serious information management problems;

• report to the **CEO** or the **hospital’s board of directors**.

The **CIO**’s membership in the **top management** team should provide the possibility to

influence the *hospital’s strategies* using information technology as a strategic resource.

Therefore, business knowledge and the ability to effectively communicate with other business

managers, for example the **chief financial officer** (**CFO**) or the **chief operating officer**

(**COO**), is important for a **CIO**. Nevertheless, reality often differs greatly from this image.

Whether the role of the **CIO** is a strategic one or a more tactical or even operational one

depends on internal hospital factors such as the **CIO**’s **top management** membership, the

internal *communication networks* among top executives and the **CIO**, the **top management**’s

strategic knowledge about ICT, the hospital’s strategic vision of ICT, and on the

personal skills of the **CIO**.

9.3.2

Information Management Department

There is usually one central *information management department* (often called the department

for medical informatics, hospital computing center, or ICT department). This unit

takes care at least of the tactical and operational information management of those parts

of the *HIS* with hospital-wide relevance (e.g., the *enterprise resource planning system* , the

*clinical information system* , and the *computer network* ). In larger *hospitals*, there may be

subdivisions with respect to tasks (e.g., different units for desktop management, user support,

*clinical systems*, or networking).

If the *information management department* also cares of strategic information management, the head of this department is typically the **CIO**.

With regard to the responsibilities for tactical and operational information management ,

it is sometimes not useful and often not feasible to totally centralize these services.

Especially in larger hospitals, they are performed in cooperation between central units and

the decentralized *staff*. This *staff* may be dedicated medical informaticians or especially

skilled users. These local **information managers** have responsibilities for tactical and operational

information management with regard to their department, but in accordance with

the central *information management department*. For example, they may (with support

from the central unit) introduce a hospital-wide *application component* in their department,

and operate it. On the other hand, they will also take care of additional information needs

of their departments, for example by introducing a dedicated departmental system. However,

this should be done only in accordance with the *strategic information management plan*.

9.4.1

Tasks

The most important tasks of strategic HIS planning are strategic alignment of *business*

*plans* and *strategic information management plans*, long-term HIS planning, and shortterm

HIS planning.

9.4.1.1

Aligning Business Plans and Information Management Plans

The basis for strategic information management in a *hospital* are the *strategic goals* as

defined in the *hospital’s* *business plan*. Advances in ICT may influence *these strategic*

*business goals*. Therefore, it is one main task of strategic information management to align

*business plans* and *strategic information management plans*. *Hospitals* aim to provide effi -

cient, high-quality *health care*. However, this mission may be further refined by goals as in

Sect. 8.4.1 , for example.

Different *hospitals* may choose different subsets of these goals, which would result in

different information management strategies and different architectures of *HIS*. If *hospital*

chosen goals are conflicting, strategic information management must try to solve these

conflicts and establish a clear order of priorities, in accordance with the *enterprise’s* *business*

*plan*.

It is obvious that the **CIO** as person in charge for strategic information management

needs knowledge about the enterprise strategy and the *enterprise business plan*. But also,

the *hospital*’s management needs knowledge about the potential of information processing

with regard to formulation, realization, and evaluation of the *hospital’s strategy*. Strategic information management must be able to offer this information to hospital management in adequate and understandable form. Methods for strategic alignment are presented in the methods section, below.