

Contextual factors & Health Management Information Systems All Chapters ...

Health Management Information Systems

Why health information system?

- Good management is a prerequisite for increasing the efficiency of health services.
- Improved health information system is clearly linked to good management.
- Information is crucial at all management levels of the health services from periphery to the centre. It is required by policymakers, managers, health care providers, community health workers.
- “Changing the way information is gathered, processed, and used for decision-making implies changing the way an organization operates.”

Definitions

System - Any collection of components that work together to achieve a common objective.

Health System - All the activities whose primary purpose is to promote, restore or maintain health.

Information - Meaningful collection of facts or data.

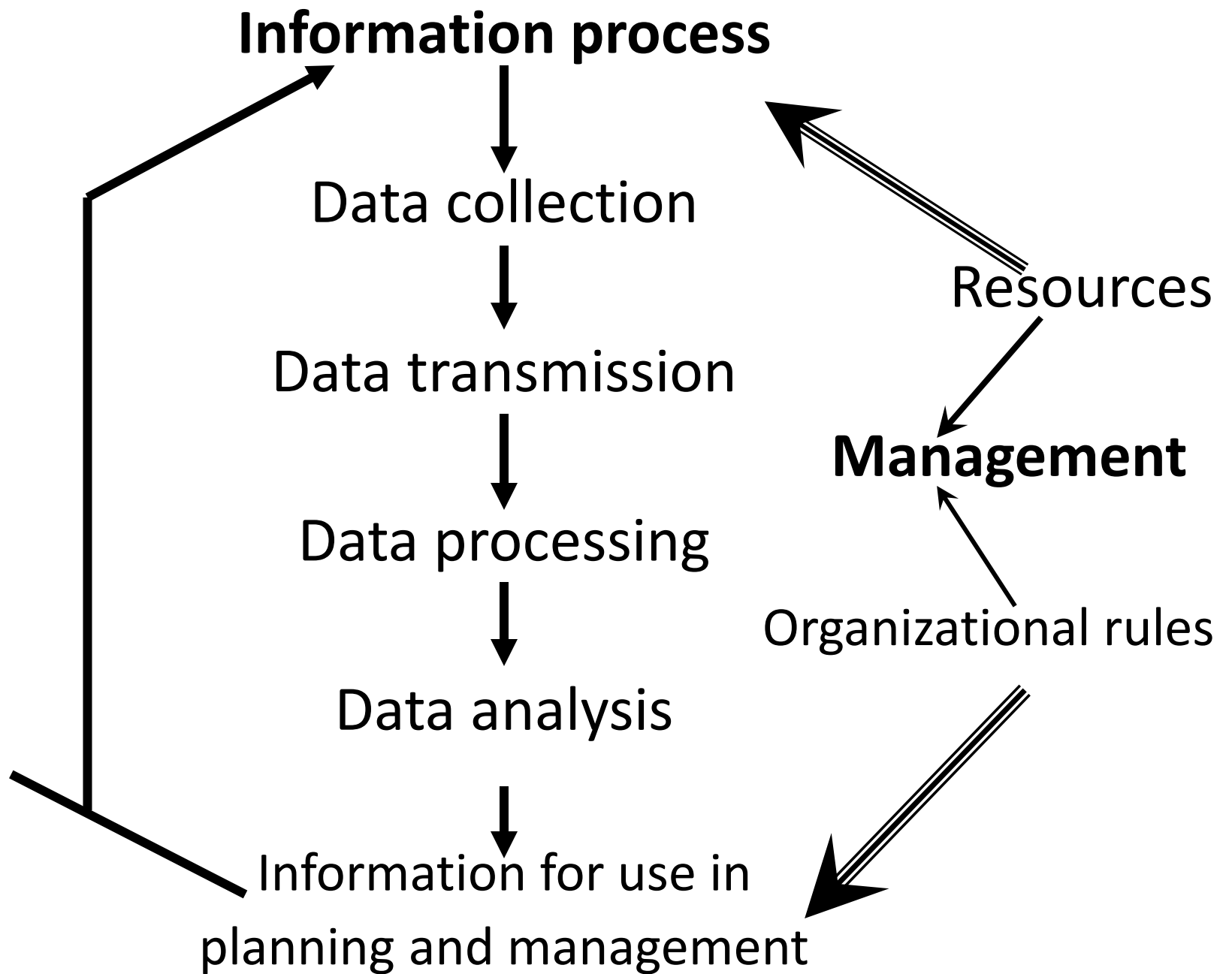
Information System - Systems that provide specific information support to the decision-making process at each level of an organization.

Health Information System - A set of components and procedures organized with the objective of generating information which will improve health care management decisions at all levels of the health system.

The ultimate objective of health information system is not “to gain information” but “to improve action”

What is wrong with current health MIS?

- Irrelevance of the information gathered
- Poor quality of data
- Duplication and waste among parallel health information system
- Lack of timely reporting and feedback
- Poor use of information
- The difference in culture between data people and decision makers: Planning and management staff rely primarily on “gut feeling” to formulate ad hoc decisions rather seek pertinent data.



Ways to enhance the use of information in decision-making

- Characteristics of the data
- Characteristics of the problems and the decisions they require
- Organizational or structural characteristics
- Cultural differences between 'data people' and 'action people'
- The communication between the two

Characteristics of the data

- Ownership and relevance
- Validity and reliability
- Aggregation of data
- Customizing information to the users' needs
- Timeliness of feedback

Sybsystems of Health Information System

WHO proposes to categorize the health information system under five interrelated “subsystems”:

- Epidemiological Surveillance (notifiable infectious diseases, environmental conditions, and risk factors)
- Routine service reporting
- Special programmes reporting systems (tuberculosis and leprosy control, MCH, school health)
- Administrative systems (health care financing systems, health personnel systems, logistic systems)
- Vital registration systems (births, deaths, and migratory movements)

what is HIS?

- ❑ **HIS. Hospital Information System. One that supports all hospital functions and activities such as patient records, scheduling, administration, charge-back and billing, and often links to or includes clinical information systems such as RIS. (Radiology Information System)**

Hospital Information System



Registration



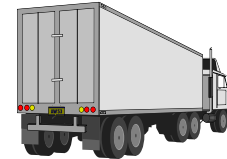
Consulting



Ward



Nursing



Stores & Purchase



Diet & Kitchen



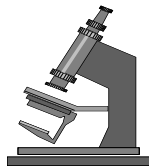
Pharmacy



OT



Blood Bank



Laboratory



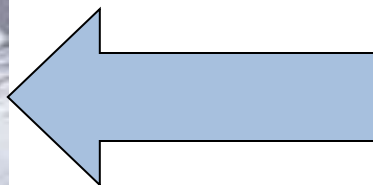
Radiology

And more...

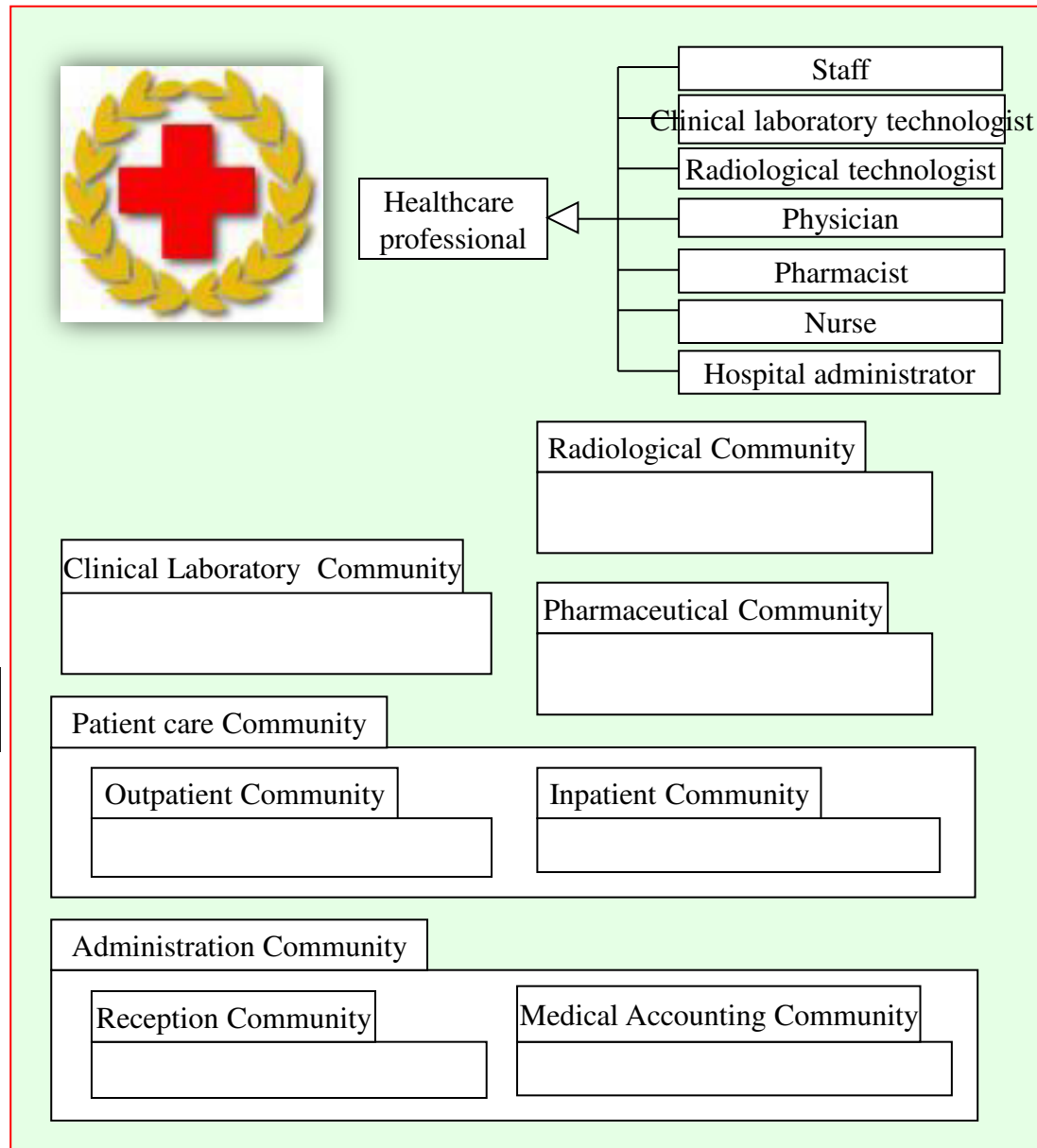
Structure of the Hospital Community



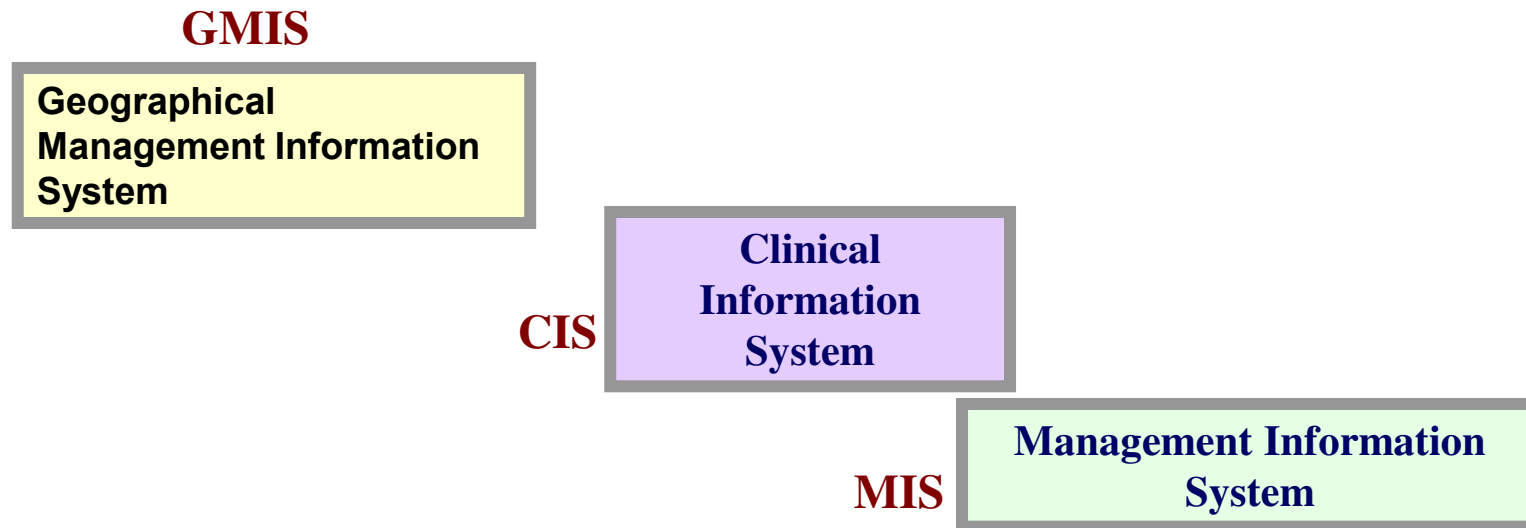
Patient



Medical Service



Development steps of HIS

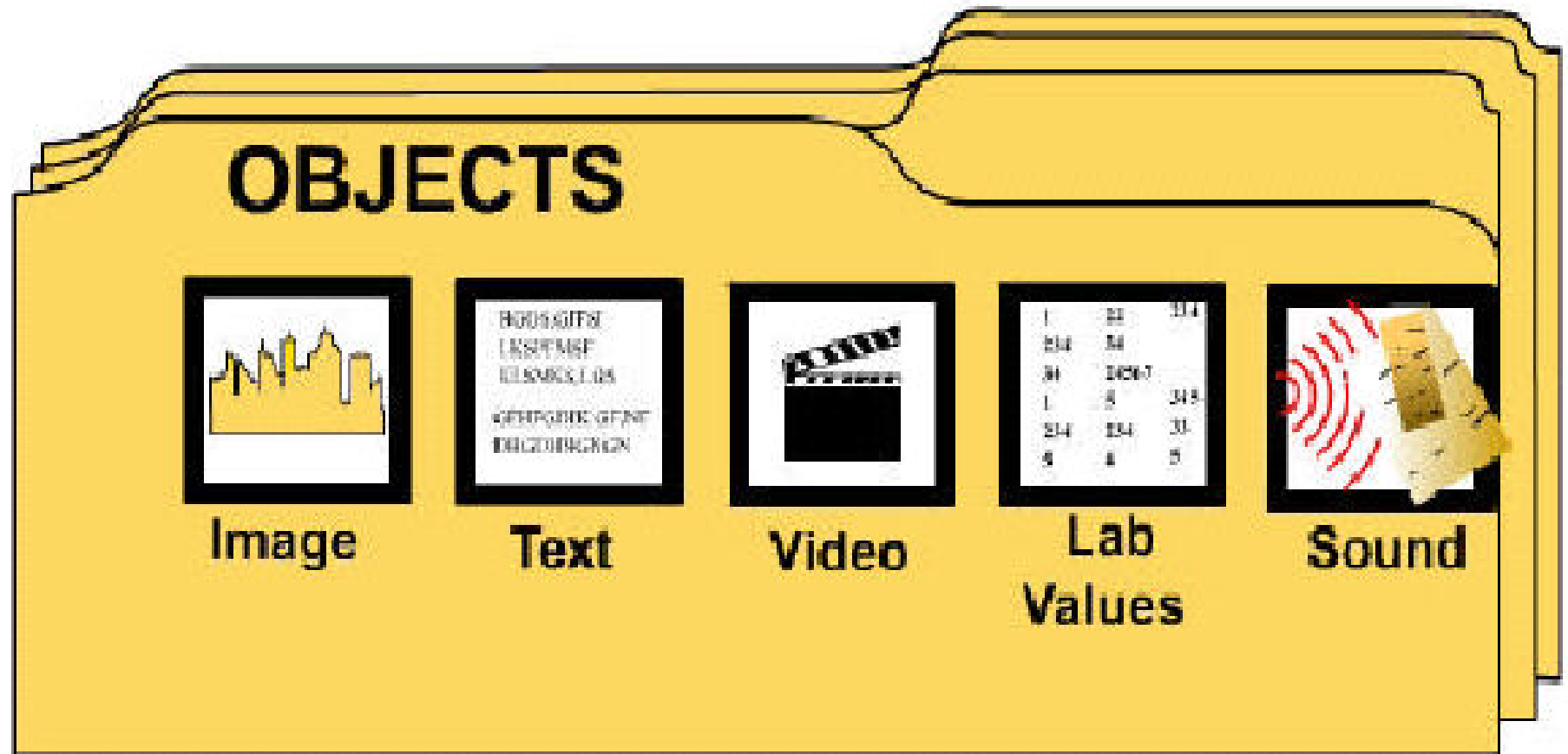


The information in hospital

The information of the hospital come from

- Front office
- Doctors consultation room
- Ward
- Laboratory
- The service providers like financial and insurance service provider
- And so on

This information can be categorized as



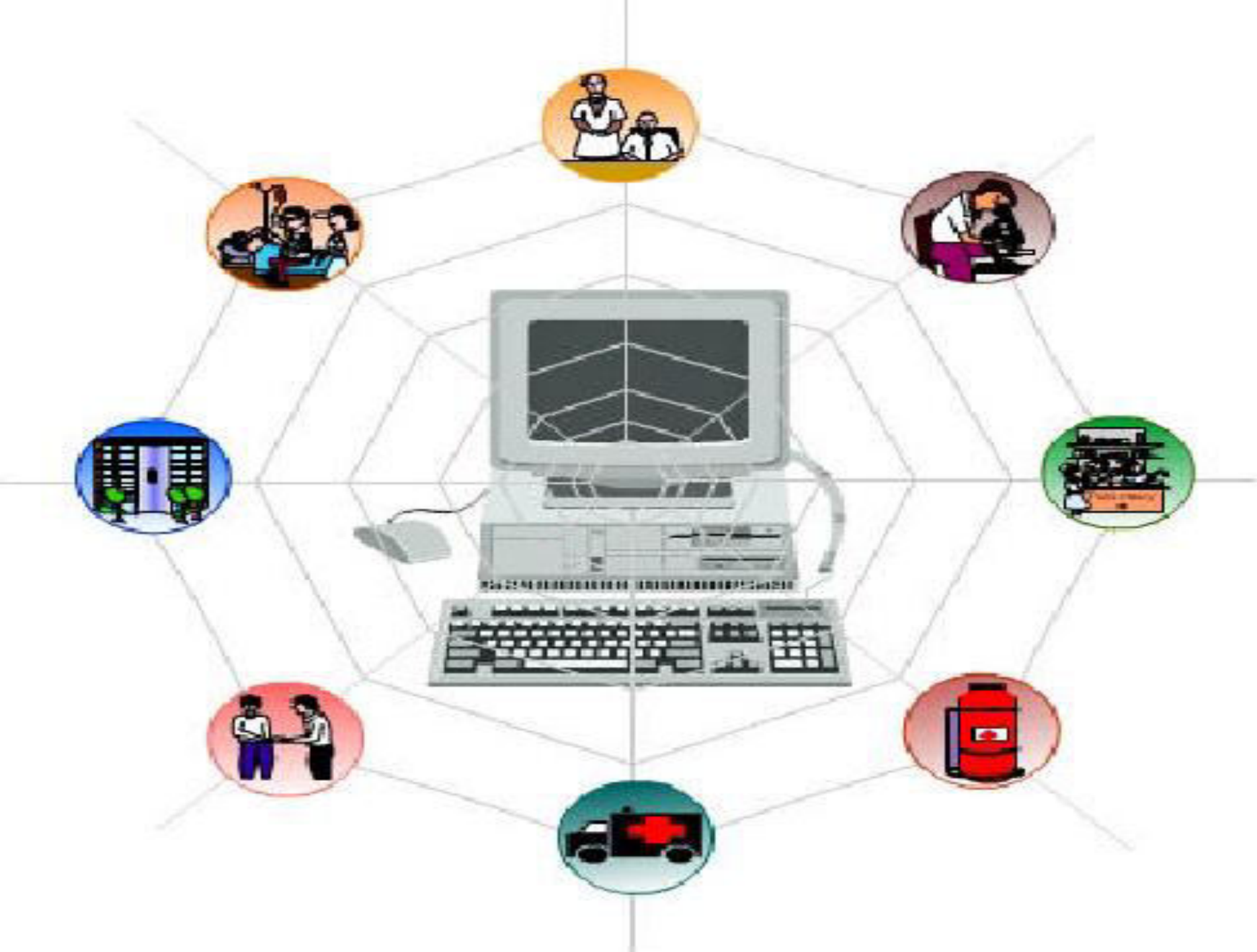
Information will be used by the areas

- **Patient Administration**
- **Clinical Management**
- **Resource Management**
- **Financial Management**
- **Management Information System**
- **And more...**

The function of HIS

HIS have the ability to link the following major players

- Laboratories
- Pharmacies
- Researchers
- Doctors and consultants
- Banks and financial institutions
- Administrators
- And knowledge managers



- **the aim of a HIS is**
 - ❑ to adequately enable the execution of information processing functions
 - for patient care, including administration as well as
 - for research and education mainly for university hospitals -
 - ❑ considering economic hospital management, as well as
 - ❑ legal and other requirements
- **therefore HIS contributes to a high quality of patient care and medical research**

- **HIS should provide**

- ☐ information, primarily about patients, in a way that it is correct, pertinent and up to date, in time, accessible by the right persons at the right site in a usable format
- ☐ knowledge, primarily about diseases, but also, for example, about the effects of drug interaction, to support diagnosis and therapy
- ☐ information about the quality of patient care, hospital performance and costs

in other words:

- **HIS should provide, as far as feasible,**
 - ☐ the right information and
 - ☐ the right knowledge
 - ☐ at the right time
 - ☐ in the right place
 - ☐ to the right people
 - ☐ in the right form
- **so that these people can make**
 - ☐ the right decisions

ten application areas will be the necessary part of the HIS

1. Admissions, Medical Records & Abstracting (ADM/MRI/ABS)
2. Billing/Account Receivable (BAR)
3. Community Wide Scheduling (CWS)
4. Data Repository (DR)
5. Imaging and Therapeutic Services (ITS)
6. Laboratory, Microbiology, Blood Bank & Anatomical Pathology (LIS)
7. Order Entry & Electronic Medical Record (OE/EMR)
8. Patient Care System (PCS)
9. Pharmacy (PHA)
10. Remote Physician Access

importance of HIS

- the information system of a hospital is an important quality factor
- the information system of a hospital is an important cost factor
- the quality of HIS is becoming increasingly relevant in the competition between hospitals
- a HIS can provide a holistic view of patients and of a hospital
- a HIS can be seen as the memory and nervous system of a hospital

Thank you very much.
Any questions?