

Lecture 1 summary: introduction to health informatics

Medical informatics is the intersection between:

- 1- information science
- 2- information technology
- 3- health care

Medical informatics can be applied in:

- 1- medical research
- 2- Education (like CME)
- 3- patient care

Medical informatics comprises the (theoretical) and (practical) aspects of information processing and communication.

Biomedical informatics BMI: interdisciplinary field that studies and pursues the effective uses of biomedical (data), (information), and (knowledge) for scientific inquiry "research", problem solving and decision making

Telemedicine: delivery of medicine at distance or the use of telecommunication and information technology for provision of clinical care to individuals located at a distance, it's between organization and organization examples include: teleradiology, telepathology

Telehealth: delivery of health related (services). It's more about health education, home monitoring and home support. Examples include: videoconferencing, home nursing.

EHealth (the big umbrella): health care practice which supported by electronic processes and communication, some argue that it's interchangeable with health informatics it's much more than telehealth it could be at distance or local

The advantage of EBM is that the practice can be kept uptodate with published (knowledge)

Electronic medical record = computer based patient record

Education (e-learning, distance learning, CME, EBM, PBM)

Research (Medical standards, Database, Data mining, DSS, statistical analysis, modeling)

Administration: (patient master index PMI)

4 essential components that make e-health:

- 1- medical knowledge (data information knowledge)
- 2- people who are willing to use it and apply it
- 3- data processing equipment
- 4- telecommunication facilities to transfer data