Medical informatics (Definitions)

• Consumer health informatics (CHI) :

Consumer health informatics (CHI)	- **A branch of health informatics that :** 1) Analyzes information needs of consumers. 2) Studies and implements methods of making health information and services accessible to consumers. 3) Integrates consumer preferences into health care information systems. - **Consumer informatics stands at the crossroads of other disciplines, such as nursing informatics, public health,health promotion, health education, library science, and communication science.** - **Integration of consumer health information and information technology in an environment of shared healthcare decision-making that supports effective self-health action.**
Empowered Consumers	a **social** process of recognizing, promoting and enhancing people abilities to meet their own needs, to solve their own problems, and mobilize the necessary resources in order to feel in control of their lives. - **CHI applications support the empowered consumers concept :** 1) Providing Informing about health concerns (Education). 2) Assisting in finding others with similar concerns. 3) Assisting in navigating the health care system and services. 4) Access to clinical records and personal care management tools.
Mobile health	M-health or Mobile health is a term used for the practice of medicine and public health, supported by mobile devices. The term is mainly used in reference to using mobile communication devices, such as mobile phones,tablets and PDAs, for health services and information.**The mobile Health is a sub-segment of eHealth..** ***MOBILE IS THE MOST PERVASIVE TECHNOLOGY EVER INVENTED!**
People Centered Care (WHO definition)	Care that is focused and organized around the health needs & expectations of people & communities rather than on disease.

• Ethics :

Ethics	is a **social** concept of good behavior. It is a collective concept that evolves gradually, usually over years, as a result of interaction between individuals living or working together		
Health Informatics Ethics	Encompassing ethical issues resulting from the utilization of technology and health informatics tools in managing healthcare and patient information and delivering health and medical services.		
Legal and regulatory matters	**Ethical considerations**	**Legal principles**	**Laws**
	attempts to determine what is good or meritorious and which behaviors are desirable or correct in accordance with higher principles.	derived from ethical ones but deal with the practical regulation of morality or behaviors and activities	Directly tell us how to behave under various specific circumstances and prescribe remedies or punishments for individuals who do not comply with the law.

Ethics Resources	**Codes of ethics**	Ethics codes are formal documents that list ethical principles and duties. Such as World Health Organization (WHO) code of ethics and International Medical Informatics Association (IMIA) code of ethics.
	Case studies	There are often available reference to similar ethical conflicts and situations in the past that may have been resolved in a certain manner. These cases can be applied as jurisprudence.
	Ethics committees and personnel	Organizations can have committees and trained staff to discuss and resolve ethics issues. These may include ethics boards or ethics professionals that are contacted for consultation when ethical conflicts occur.
	Informal discussions	Chats with friends or colleagues can lead to informal advice about how an ethical conflict can be resolved
3 concepts involved in protecting health care information	**Privacy**	The right and desire of a person to control the disclosure of personal health information.
	Confidentiality	The controlled release of personal health information to a care provider or information custodian under an agreement that limits the extent and conditions under which that information may be used or released further.
	Security	A collection of policies, procedures, measures,and safeguards that help maintain the integrity and availability of information systems and control access to their contents.
Importance of computer application in healthcare	**Availability**	Ensuring that accurate and up-to-date information is available when needed at appropriate places.
	Accountability	Ensure that health care providers are responsible for their access, and uses of information are based on a documented need and right to know.
	Perimeter	knowing and controlling the boundaries of trusted access to the information system, both physically and logically.
	Role-Limited Access	enabling access for personnel only to information essential to the performance of their jobs, and limiting the real or perceived temptation to access information beyond a bona fide need.
	Comprehensibility and Control	ensuring that record owners, data stewards, and patients can understand and have effective control over appropriate aspects of information privacy and access.
Standard view of appropriate use	The standard view state that, when adequate decision support tools are developed, they should be used as supplementary and subservient to human clinical judgment. e.g. clinical expert systems	

*In the United States :Health Insurance Portability and Accountability Act **(HIPAA)** and National Committee on Vital and Health Statistics have strongly **emphasized the importance of health privacy.** نِسفَه هبة (NCVH + HIPAA)
*In Australia, Parliament passed the Health Records And Information Privacy Act (HRIPA).