



INFORMATICA MEDICA

Che cos'è?

Informatica Medica (Medical Informatics)

Morris F. Collen, 1977 (*Preliminary announcement for the Third World Conference on Medical Informatics, Medinfo 80, 1977*)

Medical informatics is the **application of computer technology to all fields of medicine** – medical care, medical teaching, and medical research.

Jan H. Van Bommel, 1984 (*Van Bommel, J.H. The structure of medical informatics. Medical Informatics, 9 (1984), p. 175*)

Medical informatics comprises the theoretical and practical aspects of **information processing and communication**, based on knowledge and experience derived from processes in medical and health care.

M.S. Blois and Edward H. Shortliffe, 1990

Medical informatics is the rapidly developing scientific field that **deals with the storage, retrieval, and optimal use of biomedical information, data, and knowledge for problem solving and decision making.**

British Medical Informatics Society

... the understanding, skills, and tools that enable the sharing and use of information to deliver healthcare and promote health.... the **place where health, information and computer sciences, psychology, epidemiology, and engineering intersect**

eHealth

World Health Organization (WHO)

eHealth is the use of **information and communication technologies (ICT) for health.**

Mitchell, 1999

A new term needed to describe the **combined use of electronic communication and information technology in the health sector.**

Medical Business News, 2000

E-Health is a convergence between the Internet and the health care industry **to provide consumers** with a wide variety of information relating to the health care field

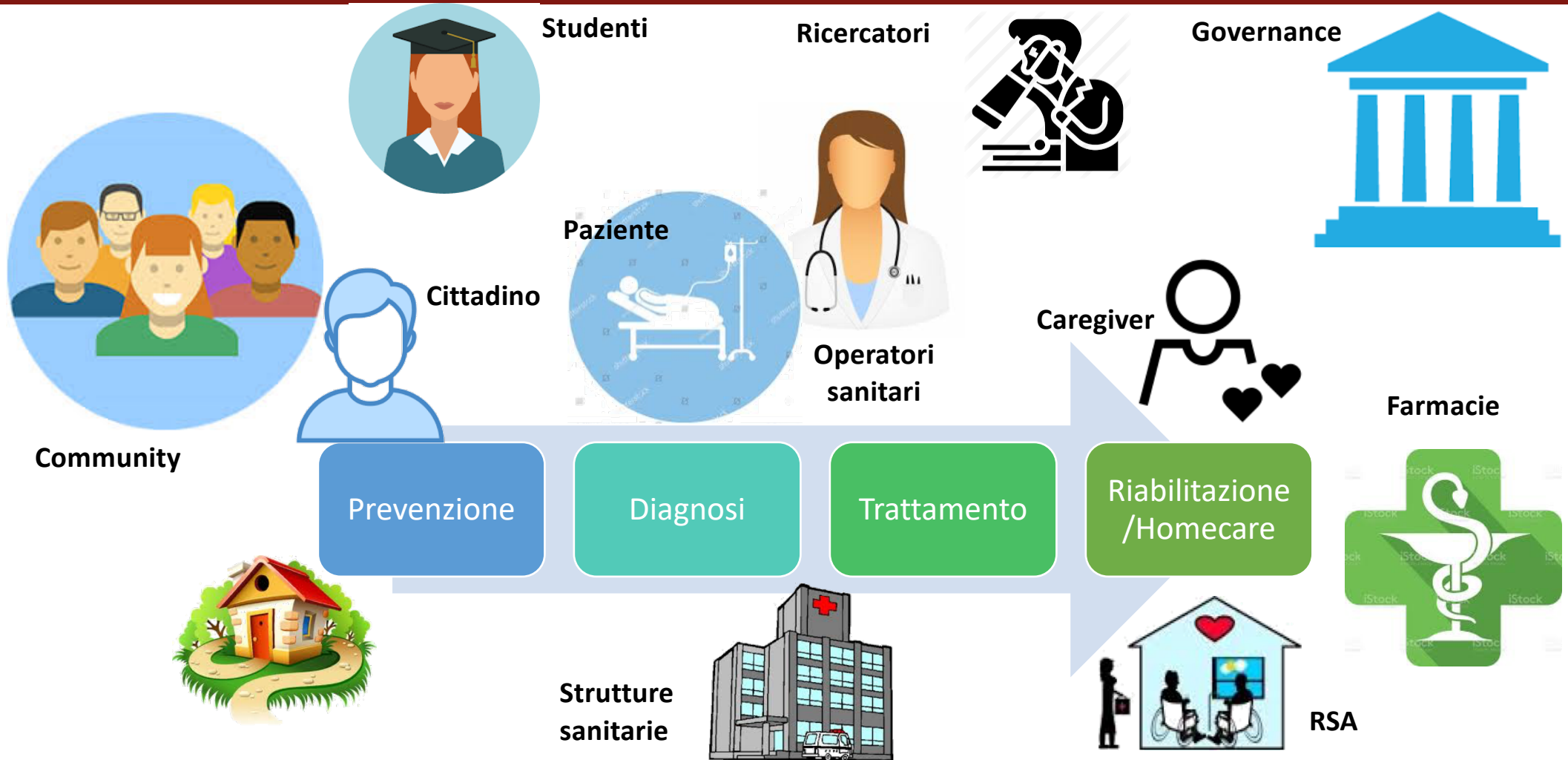
Eysenbach, 2001

e-health is an emerging field in the **intersection of medical informatics, public health and business**, referring to health services and information delivered or enhanced through the Internet and related technologies. In a broader sense, the term characterizes not only a technical development, but also a state-of-mind, a way of thinking, an attitude, and a commitment for networked, global thinking, to improve health care locally, regionally, and worldwide by using information and communication technology.

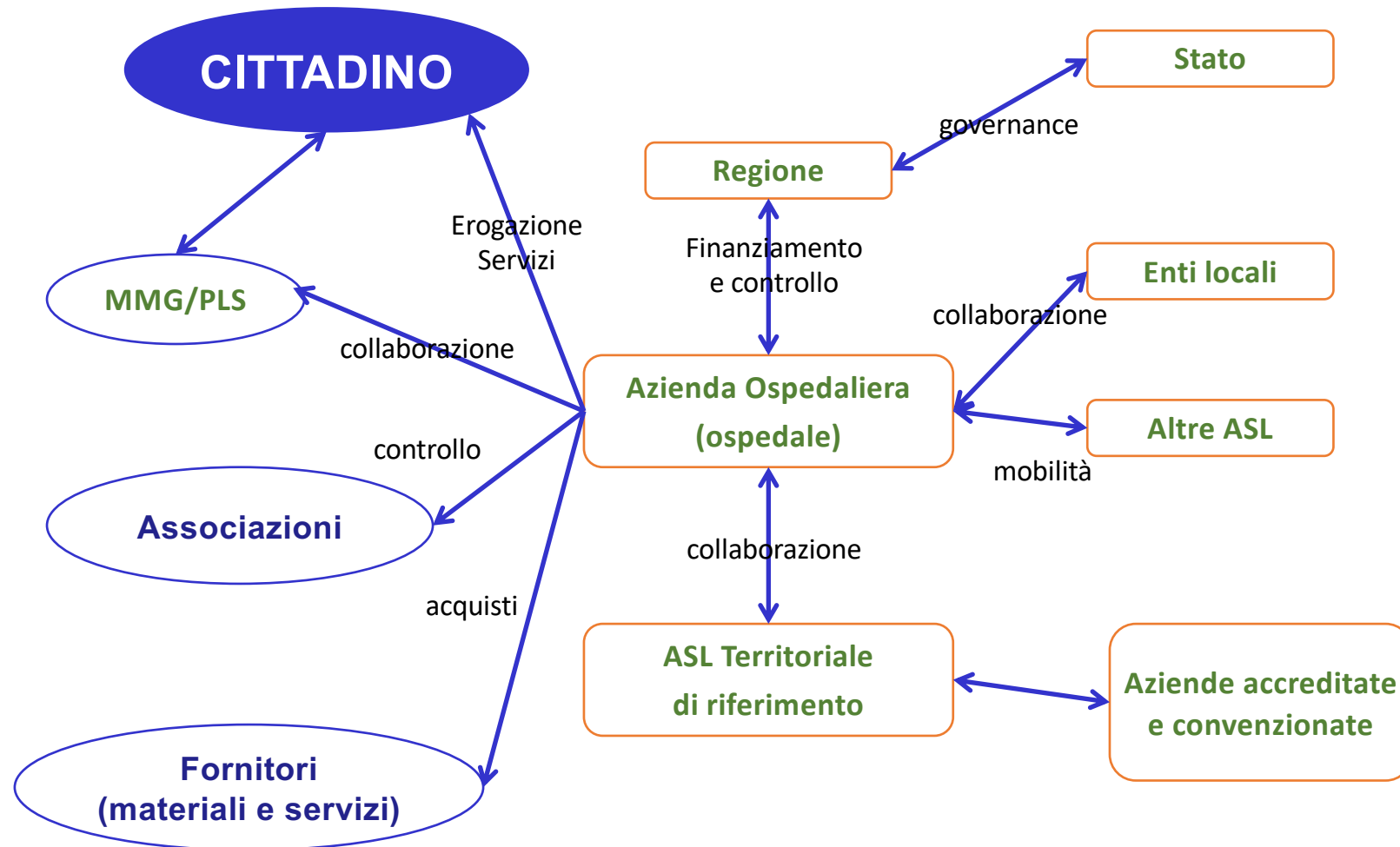
INFORMATICA MEDICA =

Insieme di conoscenze, metodi e teorie che si focalizzano sull'uso efficace delle INFORMAZIONI e della CONOSCENZA al fine di migliorare la qualità, la sicurezza e il rapporto costo-efficacia della cura dei pazienti e più in generale della salute degli individui e della popolazione

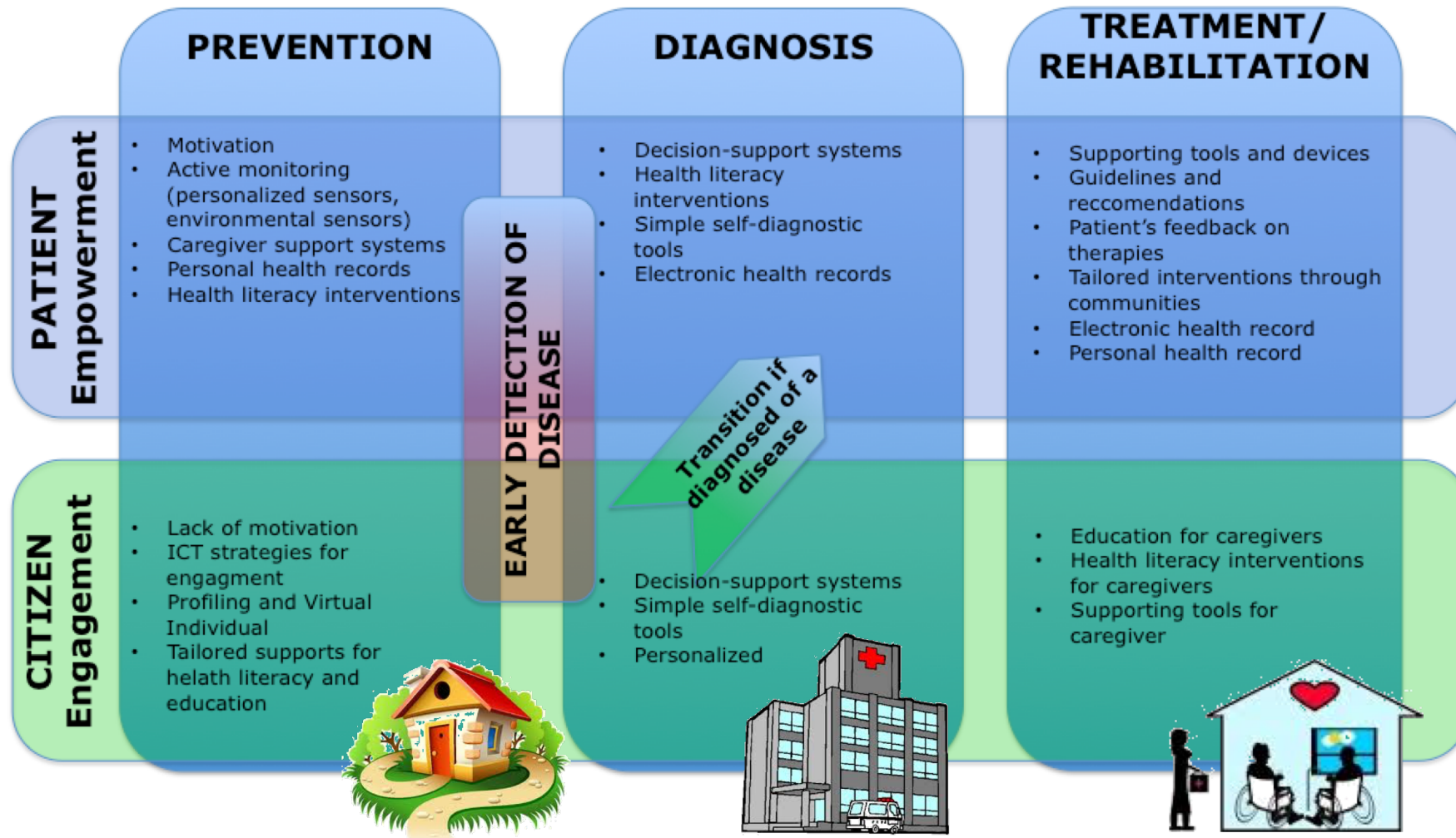
Scenario



Molteplicità degli attori nel Sistema sanitario



eHealth systems and tools



eHealth systems and tools

| | Prevention | Diagnosis | Treatment and Rehabilitation |
|--|--|---|---|
| Citizens | Diet monitoring Exercise monitoring Educational tools Personal Health Record (PHR) | Communication with healthcare professionals Unsupervised symptom checkers e-services for checking symptoms Health information websites/apps | |
| Patients | Telemonitoring & Sensors Environmental monitoring Educational tools Personal Health Record (PHR) | e-services for checking symptoms Telediagnosis tools Portals for ranking/finding physicians | Drug tracking systems Telerehabilitation systems Patient portals |
| Family/Caregivers | Activity trackers Educational tools | Communication with healthcare professionals | Drug tracking systems Telerehabilitation systems Community support tools Family Health Records |
| Healthcare Professionals and hospitals/care centres | Risk assessment tools Screening and Telescreening Decision Support Systems Electronic Health Record (EHR) | Electronic Health Record (EHR) Supervised Symptom checkers Decision Support Systems Domain Ontologies and Knowledge representation systems Hospital Information System Reference databanks Biosignal/Bioimage Databanks | Telecare systems Computer Interpretable Guidelines (CIGs) and Recommendations Electronic Health Record (EHR) Social care records and supporting systems Reference databanks |
| Private/Public/insurance Payers | Insurance-provided PHRs Risk assessment | Health Information Systems | Telecare systems |
| Medical Students | | Visual knowledge tools Bioimage databanks Online reference systems Virtual environments | |
| Researchers | | Clinical report Forms (CRF) Shared Databanks Multicentre research platforms Reference databanks Crowdsourcing tools | |

eHealth systems tools

**Electronic
Case Report
Forms**

**Electronic
Health
Record**

**Integrated
care
pathways**

mHealth

**Wearable
Devices
(IoT)**

**Hospital
Information
Systems**

**Decision
Support
Systems**

**Personal
Health Record**

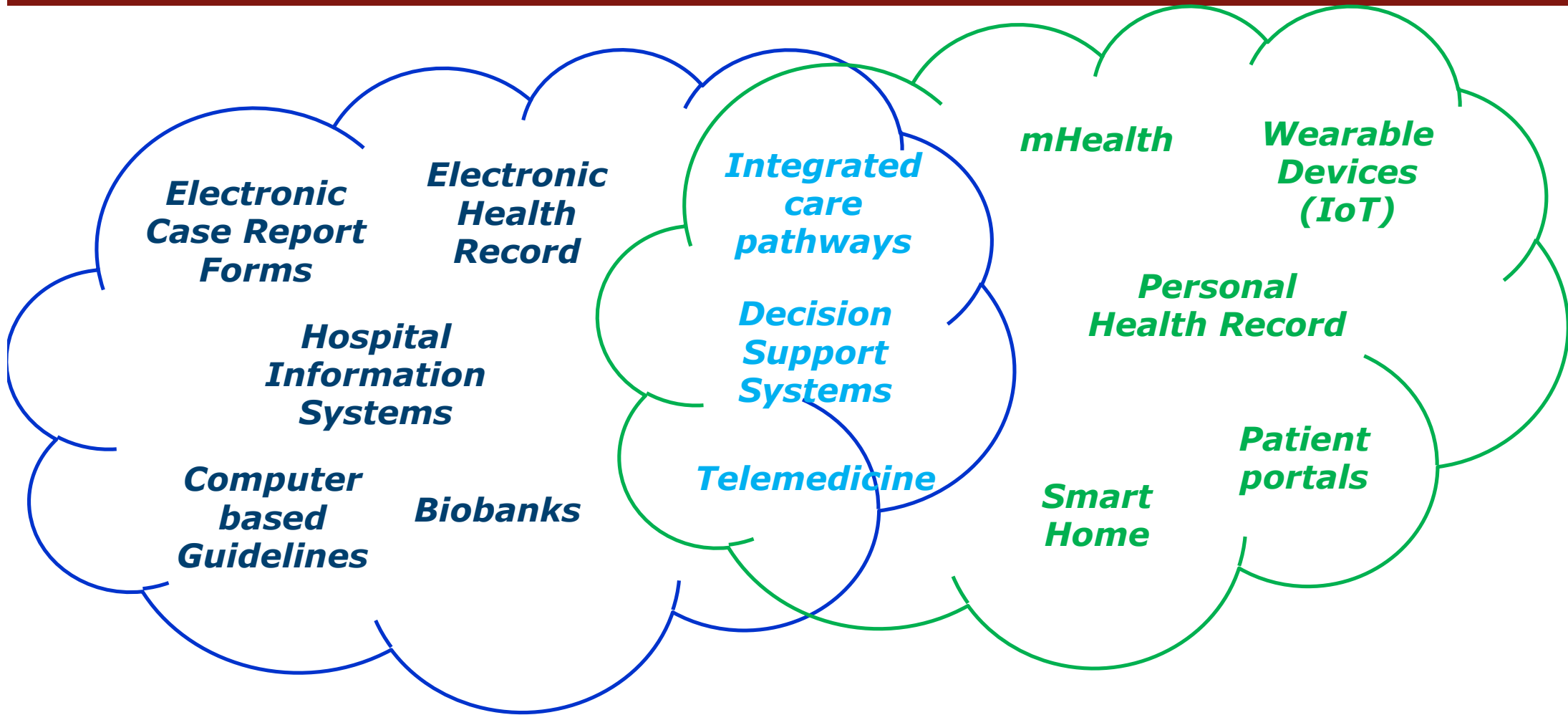
**Computer
based
Guidelines**

Biobanks

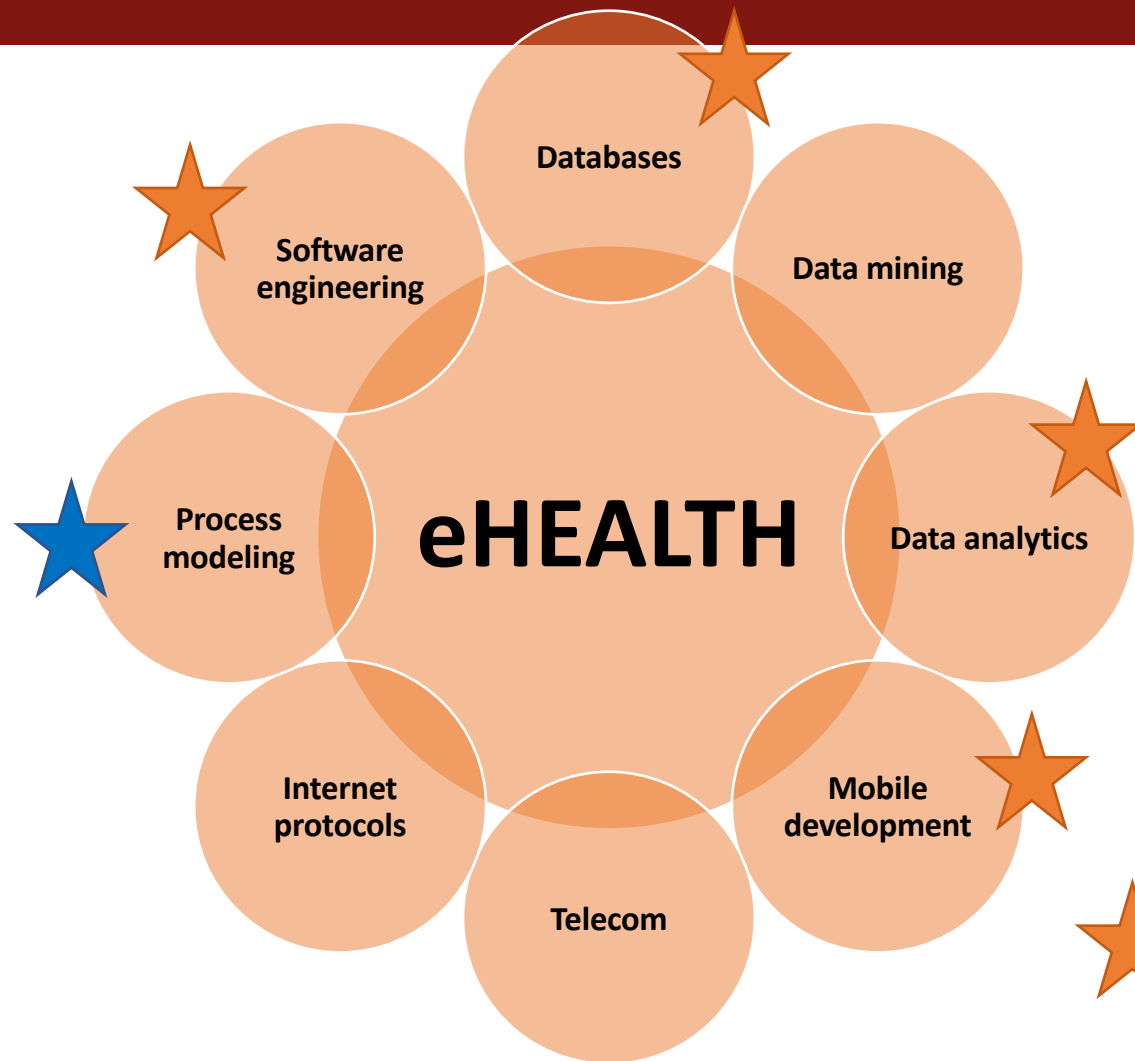
Telemedicine

**Smart
Home**

**Patient
portals**

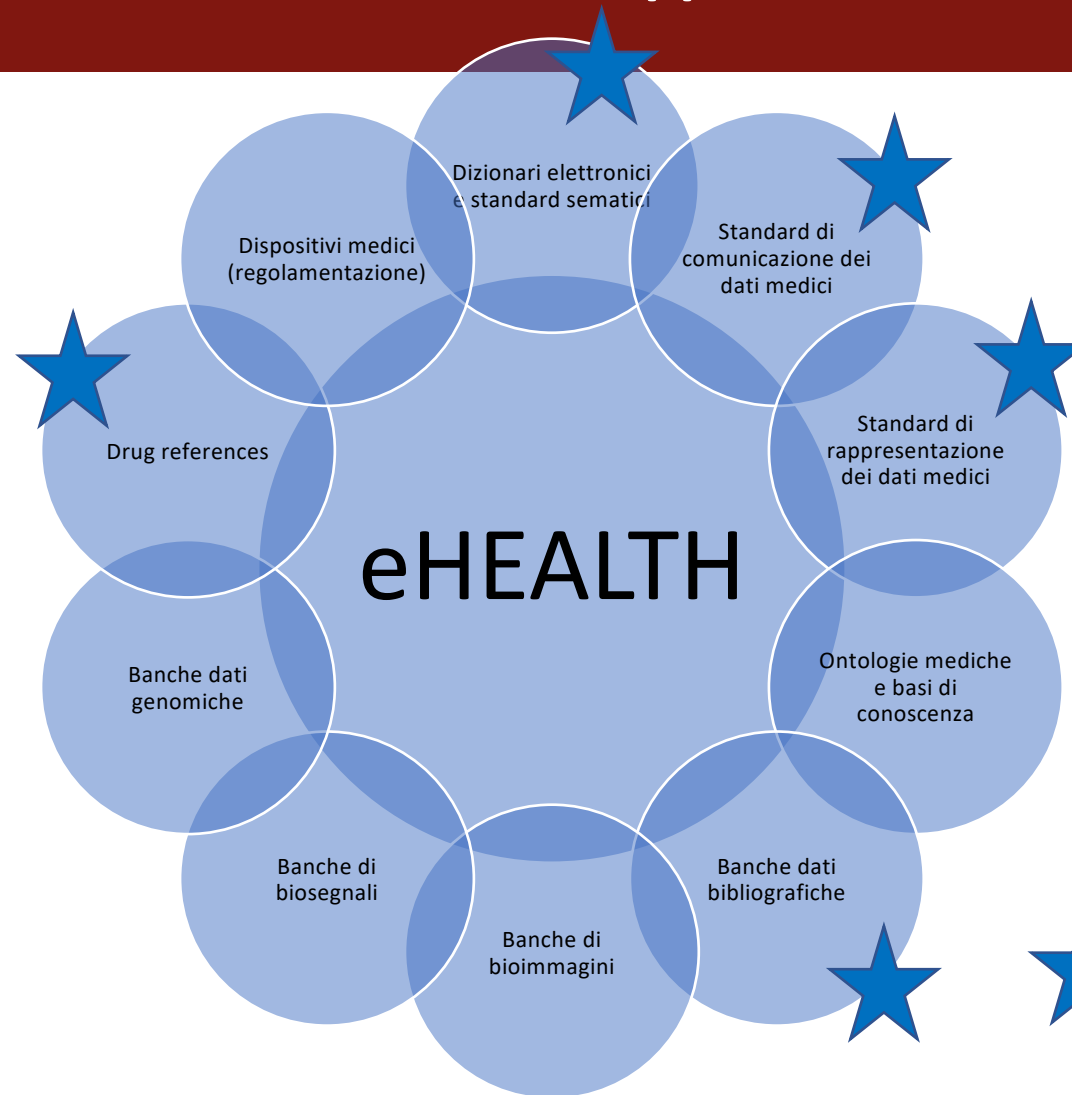


Strumenti informatici per le soluzioni eHealth



 **Informatica Medica I**

Strumenti dell'Informatica Medica a supporto del eHealth



PARLIAMO DI VOI...



https://docs.google.com/forms/d/e/1FAIpQLSeDFQc0BqZN-g8ybItsWE02caAbbLJBI2ySS3j8dxRx-JZQXQ/viewform?usp=sf_link