



INTERCALATED PROGRAM IN BASIC MEDICAL SCIENCES IN JORDAN/IBMS MEDICAL & HEALTH

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TRAINING SEMINAR

Medical School, University of Patras

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PROGRAMME

Day 1: Monday 20 September 2021

Trends in Pediatrics

09.00-11.00	“Congenital Heart Disease: Prevention”	A Karatza, Associate Professor in Paediatrics, Patras Medical School
	“Recent advances in paediatric asthma”	S Fouzas, Assistant Professor in Paediatrics, Patras Medical School
	“SARS-CoV2 infection in childhood”	D Gkentzi, Assistant Professor in Paediatrics, Patras Medical School

11.00-11.30 Coffee-break

11.30-13.00	Antiviral use in COVID-19	K.Akinosoglou, Ass.Prof. Pathology Clinics, Medical School of Patras
	Use of antibiotics in COVID-19	

13.00-14.30 Lunch

Trends in Biochemistry

14.30-17.00	“Trends in CAR-T cell therapies”	Nika K. Ass. Professor, Biochemistry Department, Patras Medical School
	“RNA molecules as tools and targets in human diseases”	C.Stathopoulos, Prof, Biochemistry Department, Patras Medical School

Day 2 : Tuesday 21 September 2021

Trends in Data analysis

09.00-12.00 "Big Data Analytics in Medicine and Healthcare "
Vassilios Verykios, Professor, Hellenic Open University

12.00-12.30 **Coffee-break**

Trends in Public Health

13.00-13.30 "Special Topics in Public Health"
Prof. A.Vantarakis, Department of Public Health

14.00-14.30 **Lunch**

14.30-17.00 "Special Topics in Public Health"
Prof. A.Vantarakis, Department of Public Health

20.30 **Dinner "Rodon" restaurant**

Day 3 : Wednesday 22 September 2021

Trends in Environmental Microbiology

09.00-10.00 "Development and applications of biosensors in medicine for rapid detection"
Z.Kotsiri, Ph.D Student researcher, Medical School, University of Patras

10.00-11.00 "DNA based methods for discrimination of bacterial species"
M. Dimitrakopoulou, Ph.D Student researcher, Medical School, University of Patras

11.00-11.30 **Coffee-break**

11.30-12.00 "Applications of molecular protocols for the detection of viruses"
C.Kotsalou, Ph.D Student researcher, Medical School, University of Patras

12.00-13.00 "Bioethics and Medicine"
Prof. A.Vantarakis, Department of Public Health

13.00-14.00 **Lunch**

Trends in Radiotherapy

14.00-17.00 "Radiotherapy: Recent advances in the treatment of cancer"
D. Kardamakis, Professor, Medical School, University of Patras

17.00 **Evaluation of seminar**
Prof Apostolos Vantarakis

I will focus on this part



SPECIAL TOPICS IN PUBLIC HEALTH

- ❖ Impact of environment, food & water on Public Health.
- ❖ Public health law and policy.

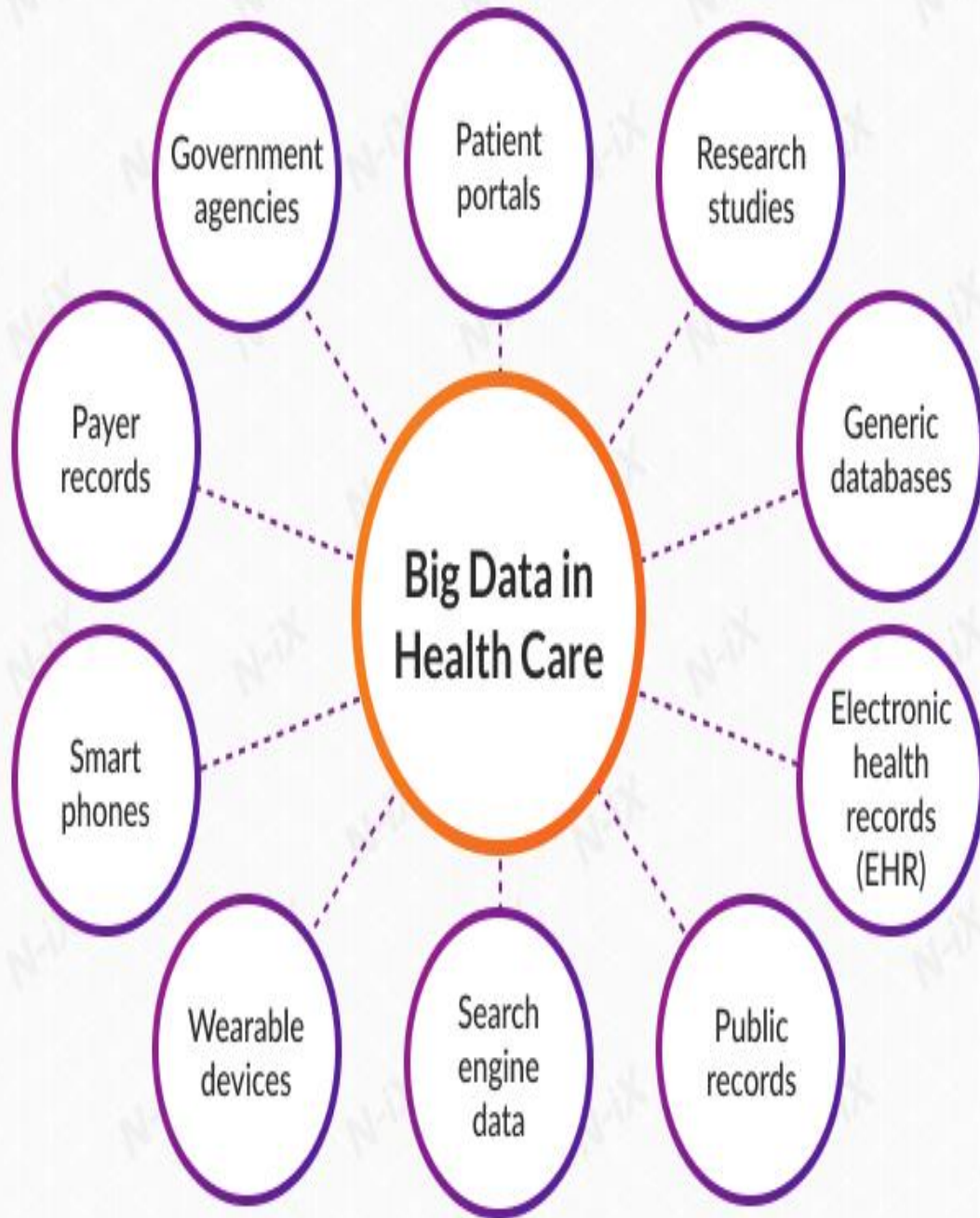
TAKE HOME MESSAGE

- Greece used to follow EU public health recommendations and apply them to their own people.
- This approach develop a gap between what really people need and the recommendations. In result, public health strategies failed to improve Greek people health in certain areas.
- They started their own surveillance system and conducted need assessment research.
- They succeeded in solving some problems related to their own people health.





BIG DATA ANALYTICS IN MEDICINE AND HEALTHCARE (QUICK OVERVIEW)



WHAT IS BIG DATA?

Big data is a term that describes large, hard-to-manage volumes of data – both structured and unstructured – that is collected in day-to-day basis. **(In real time)**

WHY IT IS IMPORTANT?

“Patient-generated data, from a clinical perspective, **improves outcomes by creating a more complete picture of the patient outside of the exam room.** In addition, as HCOs collect more data, machine learning will get better and enable more **proactive outreach.** As we gain deeper insights on individuals through data and AI, HCOs will create richer, **individualized experiences** that yield higher customer loyalty.”

Healthcare 2020: The State Of The Doctor-Patient Relationship In The US, Forrester Research Inc., March 10, 2020

Use cases of big data and data analytics in healthcare

N-iX



Diagnostics



Telemedicine



Modeling and forecasting outcomes



Imaging



Real-time monitoring of patient vitals



Electronic Health Records



Treating difficult diseases



Security



Population health



Hospital management



Preventive care



Strategic planning and smart decision-making

KEY CHALLENGES

KEY CHALLENGES

- Data integration and storage
- Lack of big data skills
- Security and privacy of data
- Data standardization (ICD 10) & Scalability
- Data sharing
- Data quality (Missing data, & poor documentations)
- Data visualization
- Data mining

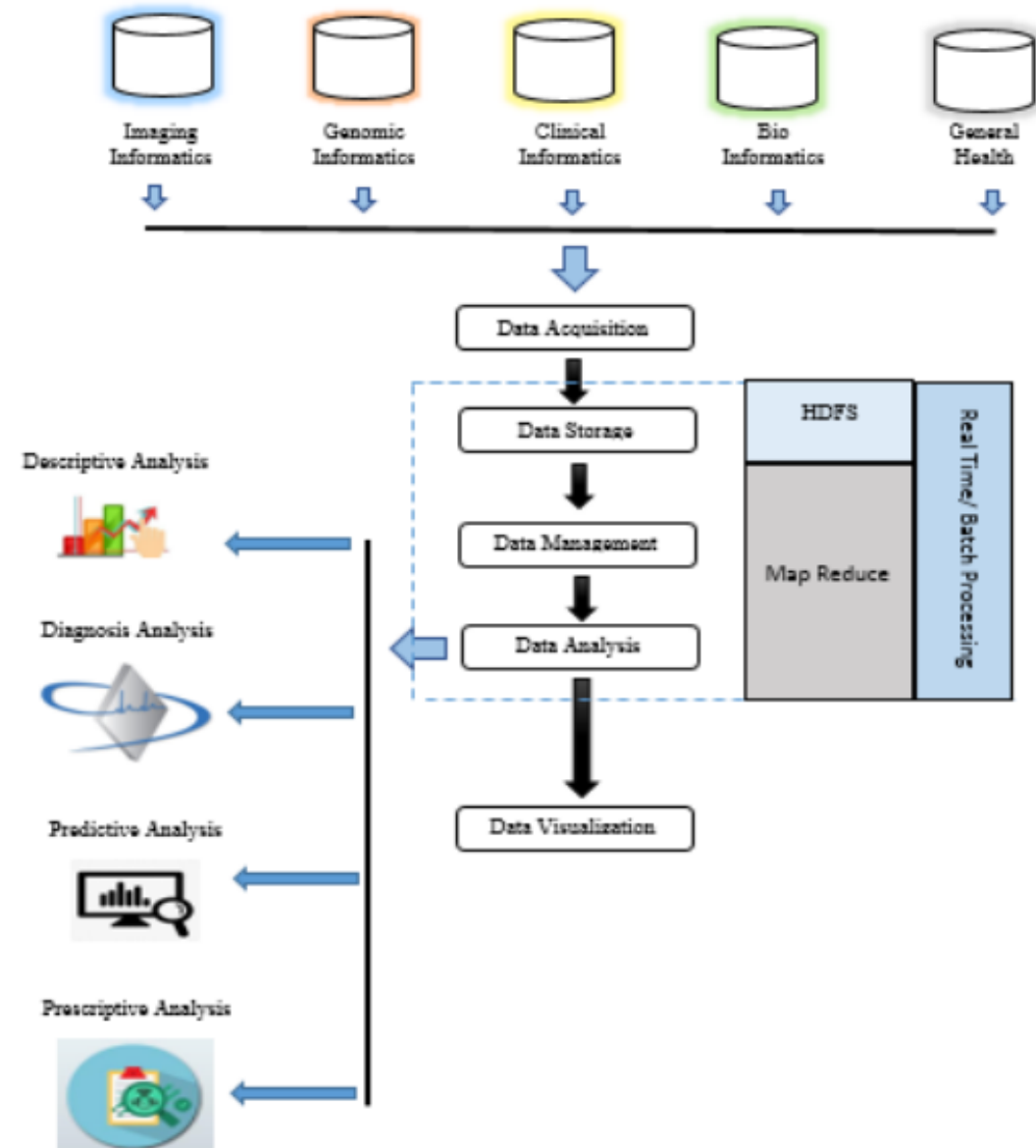


Figure 2: Conceptual Framework of healthcare big data

LOCAL BIG DATA RESOURCES

- برنامج تحليل البيانات الصحية "هدى"
التابع لبرنامج حكيم - البرنامج الوطني
لحوسبة القطاع الصحي.
- (EMR) الملفات الطبية للمستشفيات.

- وزارة الصحة قسم الأمراض السارية
والغير سارية

(disease registries) 12

AND THE WEB. HAS LOTS OF AVAILABLE DATASET FOR RESEARCH





THANKS

Dr. Ola Soudah