## Implementing Electronic Health Records in the Kurdistan Region

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### Agenda

- Objectives & Methodology.
- The Terminology & Concept.
- Key components of Electronic Health Records.
- The benefits of EHR.
- Disadvantages.
- Barriers.
- Recommendations.
- Conclusion.

## Objectives & Methodology

- Objectives; provide an IT based system to re-form in the Health system in the Kurdistan Region.
- Methodology; the goal of the presentation is to assess EHR as a tool to improve provision of knowledge and decision-making process that enhance:
  - Performance.
  - safety.
  - quality & continuity of care.
  - efficiency of patient care.

## The Terminology & Concept.

- Different terminologies such as;
- Electronic Patient Record (EPR).
- Computerized Patient Record (CPR).
- Electronic Health Records (EHR).
- Basically, the term means implementing the Information Technology in the Health sector.
- EHR can be described as a larger umbrella that covers all Healthcare-IT systems that store healthcare records.

### Definition of the EHR

The Electronic Health Record (EHR) is a longitudinal electronic record of patient health information generated by one or more encounters in any care delivery setting.

#### Included in this information are;

- patient demographics.
- problems.
- past medical history.
- immunizations.
- vital signs.
- Medications.
- laboratory data and radiology reports.
- progress notes.

Source: National Institute of Health, National Center for Research Resources (2006).

## Proportions rate for using EHR in some countries

According to the Harvard School of Public Health and the Commonwealth Fund's International Conference Survey of Primary Care Physicians:

The proportions of primary care physicians in the following countries which were using electronic medical records were:

- U.S. (17%),
- Canada (14%),
- Australia (25%),
- NewZealand (52%),
- U.K. (59%).

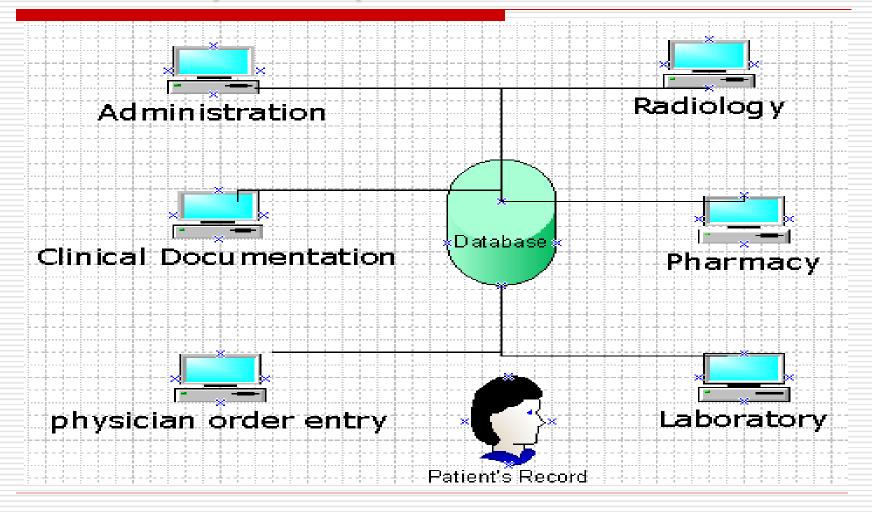
Source: International journal of Medical Informatics (2007)

## Key components of Electronic Health Record

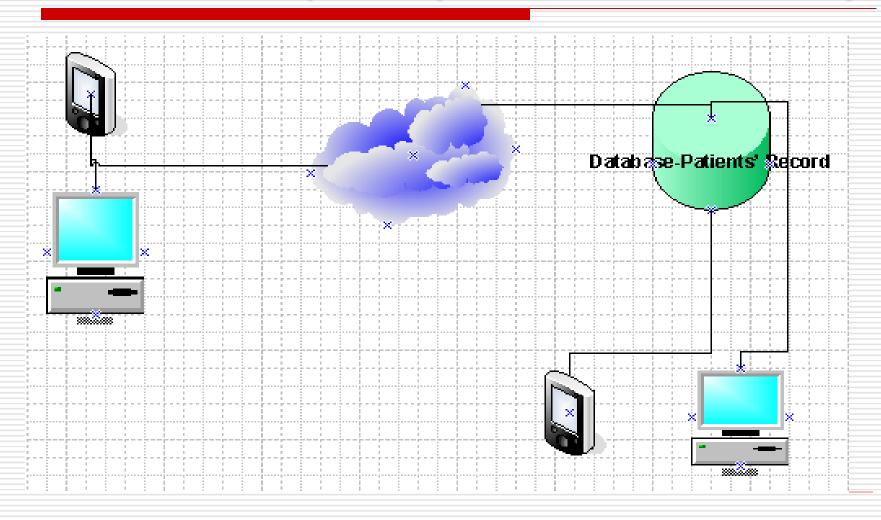
The components can be categorized such as;

- Administration system components.
- Laboratory system components.
- Radiology system components.
- Pharmacy system components.
- Computerized physician order entry.
- Clinical Documentation, Demographic and background of the patients.

## Key components of EHR



# Accessing the patients' Record-IN, OUT of hospital (Entrant-Internet)



## No more space, exhausted paper based



#### The benefits of HER

- Improved Efficiency and Lower Cost
  - More Efficient Messaging.
  - Less Time Waste Searching for Charts.
  - Access From Home.
  - More accurate billing information.
  - Lower Transcription Costs.
  - Better Use of Medical Assistance for History record.
  - Cost: Re-using Lab test, Radiology, Pharmacy, avoid printing image and documents.

- □ Enhanced Patient Access & Communication
  - Better Patient Access & Communication.
  - Patient Phone Calls Recorded Electronically.
  - Customized Patient Letters Easily Generated Tasks include:
    - Messaging.
    - Appointment Requests.
    - Lab Result Notification.

Easily Access via Patient Web Portal

- Easier Management of Quality Measures
  - Accuracy.
  - Reporting Quality Measures.
  - Generating Alerts for Clinical Care.
  - Surveys, Reporting, analyzing and broadcasting.

- More Efficient Results Management
  - Efficient Results Management.
  - Receiving Labs via Interface.
  - Reviewing Documents Electronically.

■ Better Office Visit Documentation

- Sending Documents to other Providers with Messaging.
- Accessible from remote sites to many people at the same time (the data accessible to various specialties).
  - Access records from multiple locations within office.
- Using EHR for the purpose of research: Analyzing the patients Record, prediction and customizing study in the e-health using artificial intelligent).

### Disadvantages

- High cost of computer & computer system and funding issues.
- Resistance to computer technology and lack of computer literacy.
- Providers need to be assured that the information they generate, will be available on request.
- Quality of electronic healthcare information and accuracy of data entries.
- Privacy and confidentiality.
  - Accessible to those authorized to access the data.
  - The data is recorded at the point of health care.
  - Completeness.

## Barriers to implement an EHR system

- Funding issue (such as; Start-up costs, software maintenance & software up-to-date etc.)
- Coding System (ICD).
- Difficulty in adding older records to an EHR system.
- Long-term preservation and storage of records.
- Synchronization of records.
- Privacy & Legal barriers.
- Cultural & Ethical Barriers. (resist change).

#### Barriers cont.

- Inadequate number of physicians.
- Building equipment and electricity issues.
- **Note:** More than 200 patents are being treated in the primary healthcare?
- And the number of patients who visited one of the health centers in sulaimany in 2010 were about 7000.

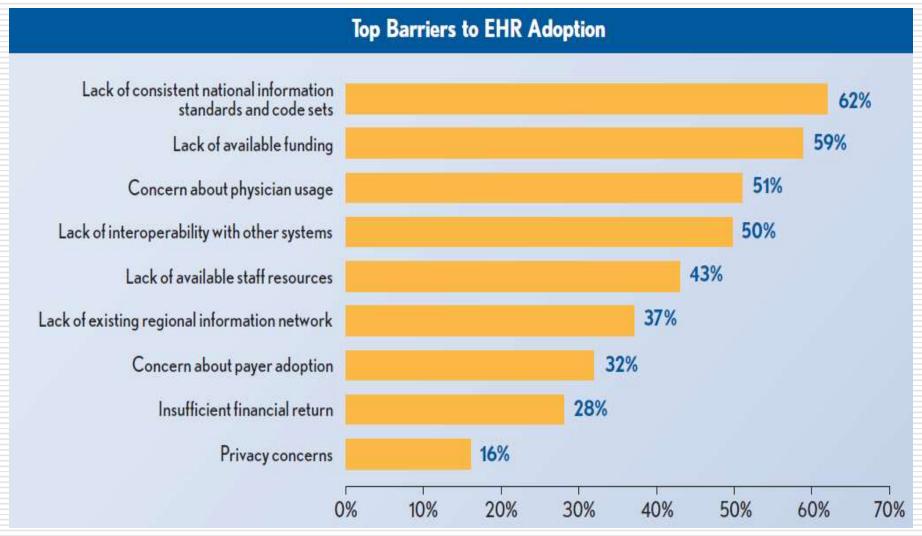
#### Recommendations

- Clear Policy & strategy plan for the EHR by Ministry of Health- KRG.
- Establishing a committee to study and prepare EHR's proposals for the Ministry of Health. (Committee members should include: Ministry of health, Physicians, Universities & ITspecialists).
- Index Patients Number.
- Digital Identity Health Card (National census: health Number, Background Information etc.).
- Specialized Center.

#### Recommendations cont.

- Unify Code and Patients' Hospital form throughout the Kurdistan Region in cooperation with the federal government.
- Adopting legislation to protect the confidentiality of medical information of citizens (legislation proposal should propose to parliament).

#### Top Barriers to EHR Adoption in USA.



Source: Health Financial Management Association, (2006)

### conclusion

Implementing EHR will face some barriers and challenges, but it provides the optimum solution for the health service.

## Thanks for your attention