



EHR Systems Use and Quality in *Turkey*

Country context

- Before 2005
 - Patient files
 - No centered system
 - No decision support system



- After 2005
 - Family Medicine System all over Turkey
 - Turkish National Health Information System all over Turkey
 - Centered Appointment System
 - Decision support system



EHR systems: Integration

Healthcare Institution Type	Total Number	NHIS Integrated Center
Oral and Dental Health Center	120	114
Public Hospital	478	473
District Hospital	223	202
Education and Research Hospital	67	64
Medical Faculty Hospital	125	53
Private Hospital	496	318
Branch Hospital	80	78

- 20.000 family physicians
- 1300 2nd and 3rd level healthcare organizations are connected to centered EHR systems.

EHR systems: legal/regulatory context

- Ministry of Health has a right of collecting EHR's. MoH determines legislations and standards to collect data. Integration to NHIS was accepted as performance criteria for hospitals in a circular order in 2009. Family Physicians has an obligatory to send EHR to Family Physicians Information System(FPIS) from 2005.
- EHR of a citizen can not be shared by anyone else except the person to whom citizen gives permission.
- Sağlık-NET(consists of 2nd and 3rd level healthcare organizations) uses HL7 v3 messaging standard.
- Sağlık-NET and FMIS are communicating versus web services

EHR systems: quality assessment

- There are approximately 1300 health institutions sending data to Sağlık-NET and this number increases rapidly.
- The 81 provincial health directorates were included to the quality assessment and evaluation process to deal with this growing.
- NHIS Quality Assessment application is opened to them to make cross check between registered hospital records and NHIS data. Comparison is done both quantitatively and qualitatively. Every month, "province NHIS quality assessment commission" compares registered hospital records and NHIS data.
- A health institution receives a passing grade if registered hospital records match NHIS records over 90 percent for every dataset

EHR systems: quality assessment

Sağlık Net Verisetti Karşılaştırma Programı

Hakkında

Veri Seti Tipi: Muayene

Hastane Protokol Defteri: C:\Documents and Settings\aysegul.avci\Desktop\karasilastirma\sagliknet.xlsx

Manual Upload

Manuel Yükleme

Automated File Upload from NHIS

Sağlık Netten Al

Sağlık Net Gönderilen:

Kurum Türü: DEVLET HASTANESİ

Kurum: ANKARA BEYPAZARI DEVLET HASTANESİ

Dönem: MART 2011 [Sağlık Netten Al](#)

Karşılaştırma Süresi: 0 dk 10 sn

1. Kriter Eşleşen : 86
2. Kriter Eşleşen : 86
3. Kriter Eşleşen : 86
4. Kriter Eşleşen : 86
5. Kriter Eşleşen : 85

Sağlık-Net Kayıt Sayısı: 100

Eşleşme Yüzdesi : %85

Percentage of qualitative matches

Sağlık Net Verileri

PROTOKOLNO	KLINIKKODU	HASTAKIMLIKNO	HEKIMKIMLIKNO	ANATANI
A110061045	1	18001050016	36569119730	R51
A110063028	50	66898276316	15070021602	N23
A110063223	37	11563117500	14576342518	G40.9
A110063283	30	14101029884	13327077044	N92.6
A110063373	29	12037104200	18952737608	J20.9
A110063591	30	17728058862	13327077044	N95.9
A110063597	16	10723323416	14752013058	J02.9
A110063647	1	10666147438	18514901010	M54.5
A110063703	50	15511069132	15070021602	N40
A110063765	1	11479115706	18514901010	Z02.9
A110063794	16	11962099322	11845105904	J02.9
A110063879	27	29596625688	29227019428	H04.1

Unmatched Criterion

EHR systems: quality assessment

- Near Future

- Every hospital information software and Family Medicine Software will be assessed by a third party company and give certifications.
- Hospitals and Family Physicians will not work with a company who has not a certified software.