

A close-up photograph of a medical chart. A silver stethoscope is draped across the top left. A red pen lies diagonally across the middle. The chart contains various data points, including numerical values and units like 'mg/dL'. A blue semi-transparent banner is overlaid across the center of the image, containing the title and authors.

# HEALTHCARE INFORMATION SYSTEMS USERS

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# Introduction



- A shortened version of paper accepted (s.t. ...) in *Health Systems*
  - A user's perspective of information systems in healthcare.
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# Introduction



## 3 kinds of people in healthcare

- Medical experts
  - People who support them
  - Patients
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- IS healthcare users are first 2 kinds
- 
- Patient user

# Why is Healthcare Difficult?



- Koppel et al (2012) Health Care I.T. to the Rescue
  - Readable what 's wrong with many good ideas
  - (DSS, ES EPR etc)
  - Revelatory read it
  - Ends with “What to do ? Specifics”
    - Does not mention the patient
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# Patient-User Perspective



- **First: The doctor patient relationship and fear**
  - **Second: Patient or physician centric EPR**
  - **Third: There are no healthcare savings**
  - **Fourth: Healthcare is naturally subject to change**
  - **Fifth: Longevity of patients**
  - **Sixth: Quality control**
  - **Seventh: Death is healthcare failure**
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# Stories



- **Story 1 PD Diagnosis**
  - **Story 2 Parallel Illnesses**
  - **Story 3 As Easy as Riding a Bike**
  - **Story 4 Stress and Pain**
  - **Story 5 Side Effects Can Kill**
  - **Story 6 Thanks But No Thanks**
  - **Story 7 Double Deep Brain Stimulation (DB)**
-

# Does it fit?



	Diagnosis	Parallel illness	Bike riding	Stress	Side Effects	Thanks but	Double DBS
Patient-doctor & fear	Yes Yes	Yes Yes	No Yes	No Yes	Variable Yes, yes	Yes Yes	Yes Terrified
Physician/ patient centric	Yes Yes	Yes No	Yes No	Yes No	Yes No, a bit	Yes Yes	Yes Yes
Resource limited	No for me	No	No	No	No	Yes relief	Yes
Change	Yes All the time	N/A	N/A	Yes New	Variable	Yes New	Clinical Trial
Patient longevity	Yes -2 years	No	Yes 0	Yes 0	Variable	Variable	No one dead yet
Quality control	No	No	heart att %	No '1 to 10'	Not much	No	Number 6
Death or success so far	No Yes	No Yes	No Yes	No Yes	No Yes	No Yes	No Yes

Table showing how the Stories fit against the Special Healthcare Factors



A photograph of medical supplies including a stethoscope, a red pen, and a silver pen resting on a document with various text and tables. A blue semi-transparent banner is overlaid across the center of the image.

**Thank you**

# Introduction



- The wealthier the nation, the more likely the expenditure on healthcare
- IS has a major role to play in Healthcare but its achievements so far are rather disappointing
- User's perspective can highlight some of the issues worthy of debate
- A new way of thinking about healthcare is presented

# The Demand for Healthcare



Location	2000	2001	2002	2003	2004	2005
U.S.A.	13.2	13.9	14.7	15.1	15.2	15.2
Portugal	8.8	8.8	9	9.7	10	10.2
Greece	9.3	9.8	9.7	10	9.6	10.1
Sweden	8.2	8.6	9	9.1	9.2	9.2
New Zealand	8.1	8.3	8.5	8.4	8.5	8.9
Japan	7.6	7.9	8	8.1	8	8.2
United Kingdom	7.2	7.5	7.6	7.7	8.	8.2
Finland	6.6	6.7	7	7.3	7.4	7.5

**Total Expenditure on Health as % of GDP 2000-2005 (WHO)**

# The Demand for Healthcare



Location	Change in public health spending as a %age of GDP 1980-2008	Change in public health spending as a %age of GDP 2011-2030
U.S.A.	3.7	5.1
Portugal	3.4	3.5
Greece	2.6	3.2
Sweden	-0.6	0.4
New Zealand	2.8	3.0
Japan	1.9	0.8
United Kingdom	2.5	3.3
Finland	2.1	2.6

Changes in Public Expenditure on Health as % of GDP (WHO)



# Information Systems in Healthcare

- Multiple potential benefits of these systems with the existence of several high profile failures
  - Focus on potential benefits are claimed to be organizational issues
  - Achieving interoperable systems have proved difficult to realize and challenging on a nation-wide scale, both in the USA and in Europe
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# Information Systems in Healthcare

- A 2006 survey of 4,561 U.S. hospitals showed a wide variation in the adoption of IT.
  - 25% 4,561 U.S. hospitals had not implemented any health IT system, and of those with IT a majority had implemented two or less applications
  - U.S. health care system faces challenges on multiple fronts, including rising costs and inconsistent quality
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# Information Systems in Healthcare

- Reliable and generalisable evidence demonstrating the positive effects of health information systems on safety and quality remains inconclusive
  - A growing body of research revealing the unintended consequences and potentially error producing effects of health information systems' implementation.
  - The theoretical intent of healthcare technologies may manifest in varied and sometimes unsafe applications that may in effect weaken care processes, safety and quality.
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