Cost Effectiveness of the Deployment/implementation of eHealth/Health IT

John D. Halamka MD

The US National HIT Program

- 3 Stages of Stimulus for demonstrated adoption of EHR technology
- Use of Certified Electronic Records
- Patient and Family Engagement
- Interoperability
- Quality Measurement

TABLE 4: OBJECTIVES AND MEASURES FOR MEANINGFUL USE IN 2017 AND SUBSEQUENT YEARS

Program Goal/Objective	Delivery System Reform Goal Alignment	
Protect Patient Health	Foundational to Meaningful Use and Certified EHR	
	Technology*	
Information	Recommended by HIT Policy Committee	
Floatnonia Duogonihina (aDv)	Foundational to Meaningful Use	
Electronic Prescribing (eRx)	National Quality Strategy Alignment	
	Foundational to Certified EHR Technology	
Clinical Decision Support (CDS)	Recommended by HIT Policy Committee	
	National Quality Strategy Alignment	
Computerized Provider Order	Foundational to Certified EHR Technology	
Entry (CPOE)	National Quality Strategy Alignment	
Patient Electronic Access to	Recommended by HIT Policy Committee	
Health Information	National Quality Strategy Alignment	
Coordination of Care through	Recommended by HIT Policy Committee	
Patient Engagement	National Quality Strategy Alignment	
	Foundational to Meaningful Use and Certified EHR	
Health Information Exchange	Technology	
(HIE)	Recommended by HIT Policy Committee	
	National Quality Strategy Alignment	
Public Health and Clinical Data	Recommended by HIT Policy Committee	
Registry Reporting	National Quality Strategy Alignment	

Evidence

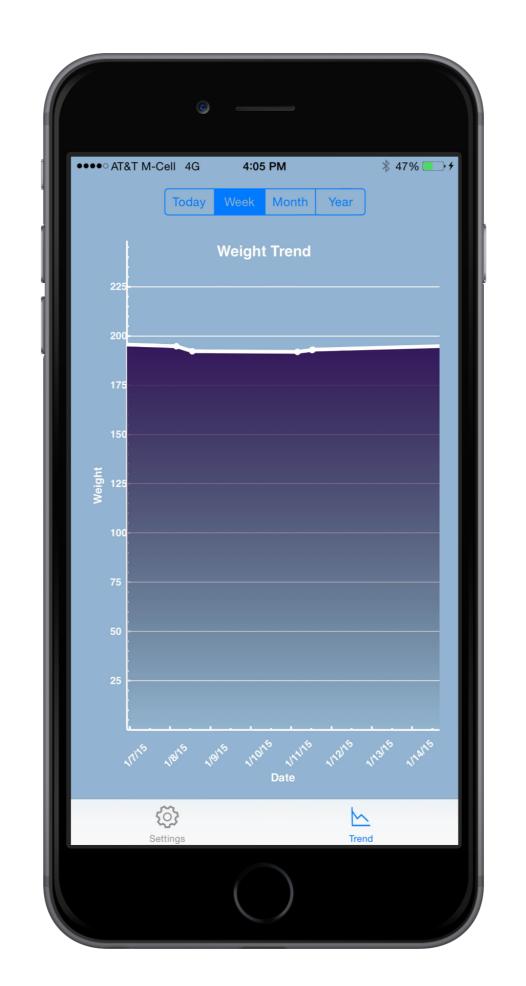
- http://inq.sagepub.com/content/48/4/288.short -EHRs reduce death by 34%, readmissions by 39%, and spending by \$4,850 (16%), a cost offset of \$1.75 per \$1 spent on IT capital.
- http://europepmc.org/abstract/med/24511884 -If all hospitals in Florida had adopted 5 IT functions, 55,700 ADEs would have been averted and \$267 million per year would have been saved.

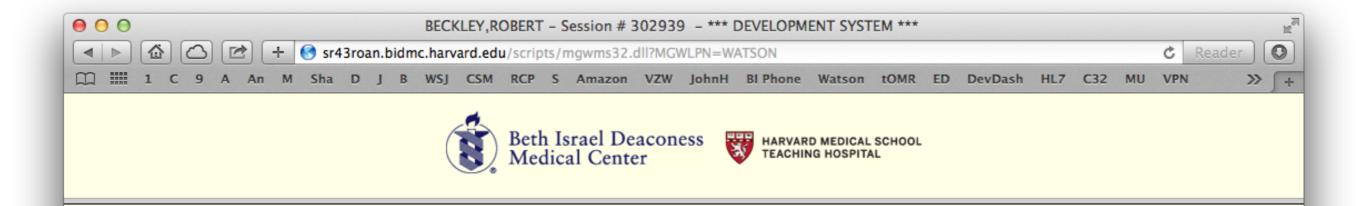
Evidence

- http://www.sciencedirect.com/science/article/pii/ S2213076414000670 - Adopting all 5 core MU elements was associated with a reduction in ADEs.
- Upcoming JAMIA article Health information exchange and the frequency of repeat medical imaging. HIE system access reduced the adjusted odds of a repeat image by 25% (95% CI, 13%-35%). Use of the HIE system to access previous patient information was associated with a reduction in repeated imaging.
- Upcoming JAMIA article e-prescribing to Medicare beneficiaries was associated with reduced risk of ADEs among their diabetes patients (0.95; 95% CI, 0.94-0.96),

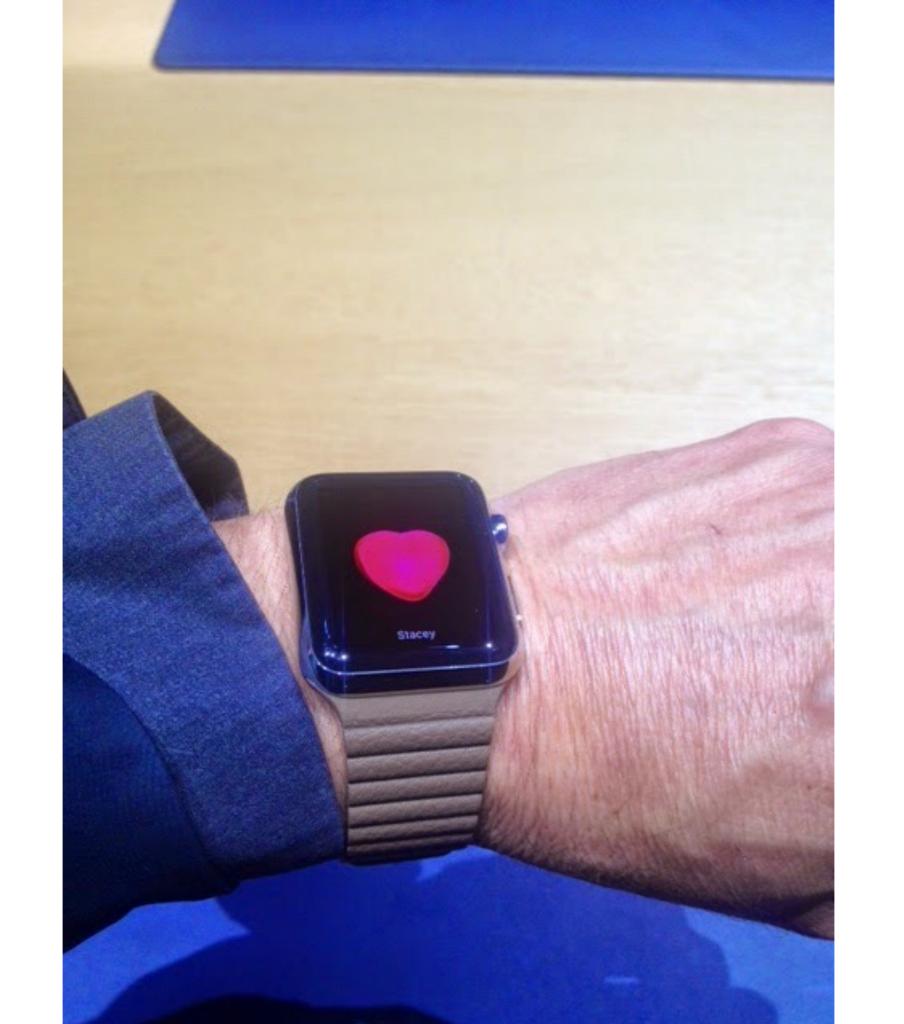
Healthcare Reform and new IT Needs

- A focus on wellness rather than sickness
- Payment for outcomes/quality not quantity
- Care Management and not just data gathering





Sample Type	Value	Units	Sample DateTime	Sample UID	Transmit DateTime
Weight	191.026147	lb	2015-01-19 08:31:37	35F2ECC2-38B0-4AE5-A4AB-E0ADAAF7A079	2015-01-19 19:49:15





Sample Type	Value	Units	Sample DateTime	Sample UID	Transmit DateTime
BloodPressureSystolic	200.000000	mmHg	2015-02-04 18:56:00	9A66AC7F-AB78-450E-8DEF-27580477F316	2015-02-04 18:56:44
BloodPressureDiastolic	130.000000	mmHg	2015-02-04 18:56:00	D9F50EA2-81DE-4B24-A96E-6B07768A0402	2015-02-04 18:56:44



Why I am here:



Heart Attack



Request a Family Meeting

Questions to ask during family meeting

Current Medical interventions



Getting medicine to prevent a blood clot



Getting medicine to prevent an ulcer



Being woken up every day Because my blood pressure is too low

Tests/Procedures for today:

Central venous line

Chest X-ray

OR



Care plan for today:

Dressing change

Mouthcare

Exercise

Breathing trial

Care Team

Name:

Age:

Sex:

Patient



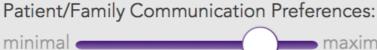
Derrick Woodward, M.D. 8/20/13

Female

73

Nationality: American

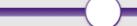
5



Participate in rounds



Family meeting



■ maximum

Private room updates





Barbara Thald, R.N. 6/12/13

Pratter, Margaret

12

Last meeting:

Friday 18 October

Met with Joseph, discussed current status and options for pain management...

Thursday 17 October <

Missed. Emergency with another patient.



Private

ALERT



Questions?

http://geekdoctor.blogspot.com

jhalamka@bidmc.harvard.edu