

HIT Trends

2009 Year in Review

Most Important Stories of the Year

Contents

HIT Trends 2009 Year in Review

Out of 250 stories we covered in 2009, we picked about 30 that best tell the story of the past year.



Winter, Yosemite Valley, CA, Ansel Adams, 1952

Focus on E-prescribing. [Top Stories ▶](#)

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Focus on E-prescribing in 2009

Top stories of the year

The year began with a report that electronic prescribing can save managed care organizations \$845,000 per 100,000 patients (\$8.45 PMPY) largely by increasing tier 1 prescribing.

Effect of electronic prescribing with formulary decision support on medication use and cost [January](#) ▶

In May, a study showed that physicians benefit as well, in that e-prescribing can help reduce the costs of interacting with managed care, estimated at almost \$70,000 per physician.

New study reporting the time physician practices spend on health plan issues supports e-prescribing value proposition [May](#) ▶

And in a series of reports, Surescripts announced that we've reached the tipping point in electronic prescribing. More than 12% of office-based physicians were using e-prescribing at the end of 2008, and nearly 23% predicted for 2009. The growth has come largely in adoption of EMRs which now account for over 2/3 of the users.

Surescripts National Progress Report shows dramatic growth in all aspects of electronic prescribing 2007-2008 [April](#) ▶

Surescripts projects a doubling of e-prescribing for the year [October](#) ▶

Nonetheless, by June, Zix announced it has to exit e-prescribing. It now appears that standalone e-prescribing can't survive, but will rather be folded into the EMR wave, perhaps as a component in a newer, lighter, more modular architecture.

ZixCorp looks to divest its electronic prescribing assets [June](#) ▶

DrFirst, NewCrop and other firms are finding ways to integrate their e-prescribing products into third party solutions. Prematics is adding care communications functions to its e-prescribing provider and patient messaging applications.

We were also reminded this fall, that we can overuse the alerting capability of e-prescribing systems.

Study finds that 10% of medication safety alerts account for over 60% of the benefits [September](#) ▶

Effect of Electronic Prescribing With Formulary Decision Support on Medication Use and Cost

Focus on E-prescribing

More than 1.5 million patients filled 17.4 million prescriptions during the study period.

Multivariate models controlling for baseline differences between prescribers and for changes over time estimated that e-prescribing corresponded to a 3.3% increase in tier 1 prescribing.

The proportion of prescriptions for tiers 2 and 3 (brand-name medications) decreased correspondingly.

e-Prescriptions accounted for 20% of filled prescriptions in the intervention group.

Based on average costs for private insurers, we estimated that e-prescribing with FDS at this rate could result in savings of \$845,000 per 100,000 patients.

Higher levels of e-prescribing use would increase these savings.

ARCHIVES OF
INTERNAL MEDICINE

Editorial: This study confirms that e-prescribing has an ROI for payers if well utilized by high prescribing practices.

Surescripts National Progress Report shows dramatic growth in all aspects of electronic prescribing 2007-2008

Focus on E-prescribing

Message volume doubled to over 240 million

Electronic requests for prescription benefit information grew to 78 million

Prescription histories grew from over 6 million to over 16 million

Prescriptions routed electronically grew from 29 million to 68 million

30% of EMRs deployed all three e-prescribing services versus 80% of standalone e-prescribing solutions

Prescribers routing prescriptions electronically grew from 36,000 to more than 74,000 by the end of 2008, or more than 12% of office-based prescribers



Editorial: This report and an update later in the year confirm that we are passed the tipping point for e-prescribing adoption. It's also an alert that most of the growth is in EMR and not standalone solutions that have better overall functionality.

New study reporting the time physician practices spend on health plan issues supports e-prescribing value proposition

Focus on E-prescribing

Physicians reported spending three hours weekly interacting with plans.

Nursing and clerical staff spent much larger amounts of time.

When time is converted to dollars, practices spent an average of \$68,274 per physician per year interacting with health plans, irrespective of practice size.

Hours / Physician / Week Interacting with Health Plans

	Authorization	Formulary	Claims/ billing
Physicians			
PCPs	1.1	1.7	0.5
Medical specialists	0.8	1.2	0.5
Surgical specialists	0.7	0.7	0.7
Nursing staff^a			
Primary care	13.1	3.8	2.1
Medical specialty	13.2	4.0	2.6
Surgical specialty	12.9	2.4	2.8
Clerical staff			
Primary care	5.6	0.00	27.1
Medical specialty	5.6	0.00	29.8
Surgical specialty	8.5	0.00	28.7

Note: subset of table

Editorial: This is strong evidence that e-prescribing has a role in helping to lessen unnecessary physician interactions with their plans. 1,310 physicians participated. Results reported in Health Affairs.

ZixCorp looks to divest its electronic prescribing assets

Focus on E-prescribing

ZixCorp announced it is reviewing strategic alternatives related to its electronic prescribing business

Zix has been an early leader in payer-based stand-alone electronic prescribing

Its most recently reported financials show that its e-prescribing business continues to be a drain on its profitable email encryption service

Editorial: This is likely a result of its failure to renew its services with its largest customer combined with an increased interest in the category given the recent HITECH legislation

Three Months Ended March 31, 2009

zixcorp.	Email Encryption	Electronic Prescribing
Revenues	6,242,000	1,014,000
Cost of revenues	1,013,000	1,458,000
Gross profit (loss)	5,229,000	(444,000)
Direct expenses	2,756,000	1,845,000
EBITDA	2,473,000	(2,289,000)

Study finds that 10% of medication safety alerts account for over 60% of the benefits

Focus on E-prescribing

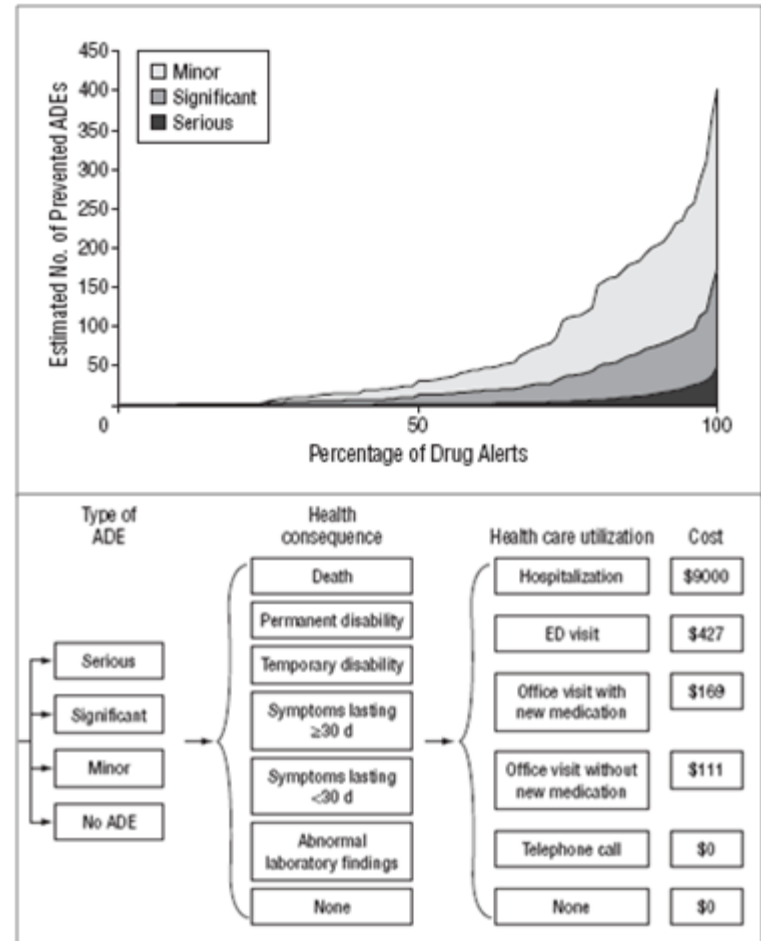
Alerts were generated from an e-prescribing application by ZixCorp in MA and Cerner Multum interaction checking.

Rated by expert panel (see model lower right).

10% of alerts accounted for 68% of projected ADEs and 73% of the total estimated costs.

Average savings per clinician was \$173, with the bulk (86.8%) attributed to 39 prevented hospitalizations.

Editorial: The idea of alert-fatigue is central to the next phase of intelligent messaging in healthcare. Companies will differentiate based on their ability to break-through the clutter with priority alerts.



Surescripts projects a doubling of e-prescribing for the year

Focus on E-prescribing

140,000 physicians, NPs and PAs are e-prescribing (23% of US office-based market).

200 types of e-prescribing and EMR solutions are certified (38% growth this year).

51,000 retail pharmacies are connected (84% of the market).

Six of the largest mail order pharmacies are connected.

In a separate announcement...

Surescripts is ready to certify solutions to meet proposed *meaningful use* for e-prescribing via NCPDP SCRIPT 10.6



Editorial: This report and a release earlier in the year confirm that we are passed the tipping point for e-prescribing adoption. It's also an alert that most of the growth is in EMR and not standalone solutions that have better overall functionality.

Focus on EHR in 2009

Top stories of the year

The year began with a reminder that EHRs are considered by primary care physicians in other western societies to be an aid in improving health quality. It's a hopeful idea.

Study shows EHRs improve quality in seven countries [March ▶](#)

This was confirmed by CMS over the summer that the US could also benefit from use of EHRs, particularly in managing chronic care.

Medicare Group Practice Demo shows IT impact on chronic care [August ▶](#)

This year the EHR movement seemed wrapped up in the hope of things to come, buoyed by the coming stimulus of ARRA HITECH.

Wal-Mart announced that we can now buy an EHR at Sam's Club. This move got a lot of press and signaled it was perhaps a new day for EHRs.

Wal-Mart offers EHRs through Sam's Club [March ▶](#)

In April, RI announced that 40% of its physicians are using an EHR, many of them products from eClinicalWorks. KLAS, an industry monitor, wondered if they could keep up the pace or get buried in unimplemented projects.

RI announces impressive levels of EMR use in the state [April ▶](#)

KLAS report analyzes growth of eClinicalWorks and questions whether it can be sustained [April ▶](#)

One reason for eCW's popularity may be that it can be delivered as a remotely hosted service. A competitor, PracticeFusion, is getting funding support from Salesforce.com, adding credibility to its positioning with an ad-supported web-based EHR.

Salesforce.com invests in PracticeFusion web EMR [August ▶](#)

Another model that will make a difference is the initiative by health systems to provide EHR services to affiliated community practices boosting their healthcare brand and supporting the operations of its lab and imaging services. LIJ is spending \$400 million on the largest project to date.

North Shore-LIJ Health System provides \$400M to NY physicians to implement EMRs [October ▶](#)

Dell signals it wants to be a significant force in HIT by pulling together a most impressive array of services in support of the health system model above.

Dell is positioning as a provider of EHR services and buys Perot Systems [September ▶](#)

And yet, HIMSS and MGMA think members aren't ready and Senator Grassley sends a nasty-gram to vendors signaling that next year promises to be fascinating.

HIMSS report on hospital readiness to meet meaningful use criteria highlights several gaps [October ▶](#)

MGMA says physicians won't be eligible for EHR incentives [October ▶](#)

WSJ Health Blog: Senator Grassley letter to EMR vendors [November ▶](#)

Study shows EHRs improve quality in seven countries

Focus on EHR

Commonwealth Fund study comparing seven countries

US, Netherlands, New Zealand, United Kingdom, Australia, Germany and Canada

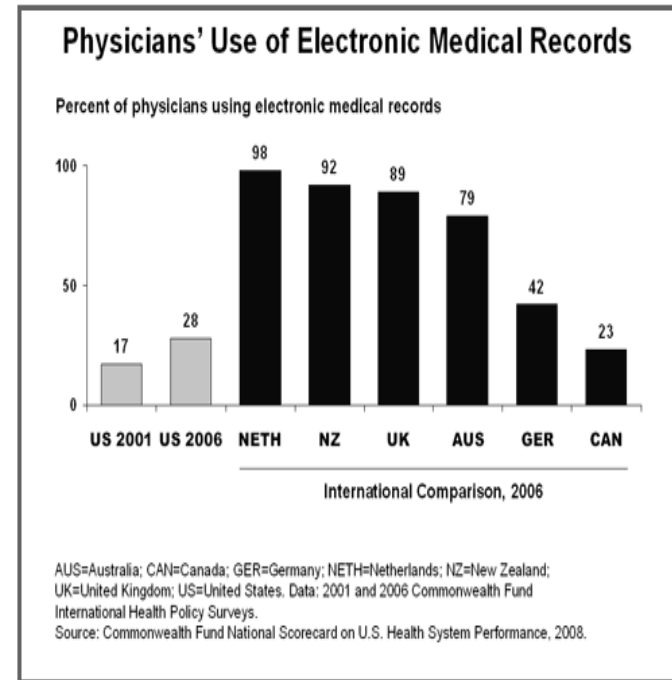
Primary care physician self-reports

Physicians in practices utilizing more EHR functions had better outcomes

Coordination and safety of care

Care for chronically ill patients

Satisfaction with practice of medicine



Editorial: This report is one of a few out this year that remind us that other western countries have considerable positive experience with EMRs which is encouraging.

Wal-Mart offers EHRs through Sam's Club

Focus on EHR

The NY Times reports that Wal-Mart will offer Electronic Health Record systems through Sam's Club

Dell will provide the hardware and EClinicalWorks will provide the software, implementation and training

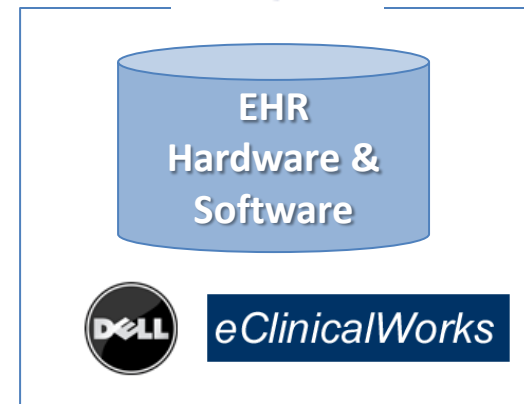
Wal-Mart has been using this combo in its health clinics

Sam's sees its role as coordinator and distributor serving its 200,000 Sam's Club physicians

Pricing is \$25,000 for the first physician in a group and \$10,000 for each additional plus maintenance fees

This isn't any lower than current eCW prices and virtually all the traditional barriers of complexity remain

Editorial: The early talks were rumored to price eCW products at a much lower price point. As presented, it's less compelling, although did signal a change in tone for EMRs based on coming HITECH incentives.



Targeting Smaller Practices

RI announces impressive levels of EMR use in the state

Focus on EHR

39.3% of all RI physicians use an EMR

7.3% use a Qualified EMR (all of six functions)

Clinical documentation, reporting, results, decision support, e-prescribing, CCHIT certification

57.6% of those that use an EMR use all basic functions 60% of the time

Visit notes, med list, problem list, clinical summary, lab results, radiology results

41.2% of EMR users use all advanced functions 60% of the time

Drug interaction, patient reminders, provider alerts, referrals, secure email, lab orders, radiology orders

23.9% of RI physicians use e-prescribing and an EMR

	Responses (N=1,888)		All physicians (N=3,248)	
	N	%	N	%
EMR	1,888	67.6%	3,248	39.3%
Qualified EMR	1,888	12.5%	3,248	7.3%
Basic use	1,277	57.6%	--	--
Advanced use	1,277	45.2%	--	--
E-prescribing	1,888	41.2%	3,248	23.9%

Editorial: Adoption levels are consistent with CDC reported national data and our own projections of the growth rate.

KLAS report analyzes growth of eClinicalWorks and questions whether it can be sustained

Focus on EHR

eClinicalWorks is the fastest growing EMR vendor.

The majority of providers are very satisfied

93 % say functionality met or exceeded expectations; 97 % say cost of adoption met or exceeded their expectations.

Support is a source of frustration for many.

Integration with other clinical systems is also a significant concern.

eClinicalWorks' low cost and easy, intuitive interface plus the option of a remote-hosted model (chosen by 30 percent of its customers) are differentiators

Practice Size (# Physicians)	eClinicalWorks EMR Score	EMR Market Leader Score
Over 100	75.9	Epic – 88.5
26-100	78.7	Allscripts – 79.5
6-25	80.4	Greenway – 89.3
2-5	82.8	Greenway – 90.3
1	78.9	Sevocity – 89.9

Editorial: This market historically has seen the challenges of maintaining growth. As the EHR market heats up, pressure will make customer support increasingly challenging.

Medicare Group Practice Demo shows IT impact on chronic care

Focus on EHR

5 year study with 10 large physician groups representing 5,000 physicians and 220,000 Medicare fee-for-service beneficiaries

Billings Clinic, Billings, Montana

Dartmouth-Hitchcock Clinic, Bedford, New Hampshire

The Everett Clinic, Everett, Washington

Forsyth Medical Group, Winston-Salem, North Carolina

Geisinger Health System, Danville, Pennsylvania

Marshfield Clinic, Marshfield, Wisconsin

Middlesex Health System, Middletown, Connecticut

Park Nicollet Health Services, St. Louis Park, Minnesota

St. John's Health System, Springfield, Missouri

University of Michigan Faculty Group Practice, Ann Arbor, Michigan

Overall the groups increased quality scores in diabetes, CHF, CAD, cancer screening and hypertension.

5 groups earned \$25.3M in shared savings out of \$32.3 total Medicare savings.



Physician Group Practice Demonstration Quality Measures			
Diabetes Mellitus	Congestive Heart Failure	Coronary Artery Disease	Preventive Care
HbA1c Management	Left Ventricular Function Assessment	Antiplatelet Therapy	Blood Pressure Screening
HbA1c Control	Left Ventricular Ejection Fraction Testing	Drug Therapy for Lowering LDL Cholesterol	Blood Pressure Control
Blood Pressure Management	Weight Measurement	Beta-Blocker Therapy – Prior MI	Blood Pressure Control Plan of Care
Lipid Measurement	Blood Pressure Screening	Blood Pressure	Breast Cancer Screening
LDL Cholesterol Level	Patient Education	Lipid Profile	Colorectal Cancer Screening
Urine Protein Testing	Beta-Blocker Therapy	LDL Cholesterol Level	
Eye Exam	Ace Inhibitor Therapy	Ace Inhibitor Therapy	
Foot Exam	Warfarin Therapy for Patients HF		
Influenza Vaccination	Influenza Vaccination		
Pneumonia Vaccination	Pneumonia Vaccination		

Editorial: These are strong results; smaller practices have not fared as well turning EMR functions into patient outcomes

Salesforce.com invests in PracticeFusion web EMR

Focus on EHR

PracticeFusion is a free, advertising-supported solution for physicians.

It provides on-demand, web-based practice management and EMR services.

It reports 18,000 users in 50 states.

Salesforce.com has made a minority investment (under \$10M).

PracticeFusion will operate on Salesforce.com's cloud computing platform (Force.com).

Also announced is a personal health record (PHR) to be released this year.



Editorial: The Salesforce.com relationship is a real milestone for PracticeFusion adding to the credibility of its growing client base. It's a model with great promise in the industry.

Dell is positioning as a provider of EHR services and buys Perot Systems

Focus on EHR

Dell announced a solution to help hospitals deliver interoperable EMRs to smaller practices.

“Dell has created a modular, enterprise-class EMR solution that sponsor hospitals will configure to meet the specific needs of their affiliated physician community.

It includes application hosting and Health Information Exchange management and revenue opportunities for sponsor hospitals and everything necessary to promote the solution to physicians.”

Tufts and Memorial Hermann are early adopters using eClinicalWorks software.

Dell buys Perot Systems for \$3.9B

Hardware companies have been buying services companies to compete in enterprise deals and Perot has a large healthcare presence.

Editorial: Additional evidence that the stimulus dollars are bringing interesting new entrants to the HIT market. And the model of working through health systems to reach smaller aligned physician practices is important.



perotsystems®

North Shore-LIJ Health System provides \$400M to NY physicians to implement EMRs

Focus on EHR

The service is a health system labeled EHR, powered by Allscripts.

License covers 7,000 affiliated physicians in New York City and Long Island

50% or 85% of implementation and operating costs up to \$40,000 over 5 years is reimbursed by the health system.

To get the 85% incentive practices agree to report performance and be measured against guidelines.

The health system will also link these practices to its clinical lab and imaging services.

Eclipsys, the vendor for the inpatient side, will integrate relevant data with Allscripts.

Henry Schein, Inc. will help distribute the service to physicians in the field.

Editorial: This deal is a watershed. It proves that health systems have a significant financial incentive to pull affiliated practices toward a dominant regional player. It's likely that lab and imaging services are large contributors to the business model.

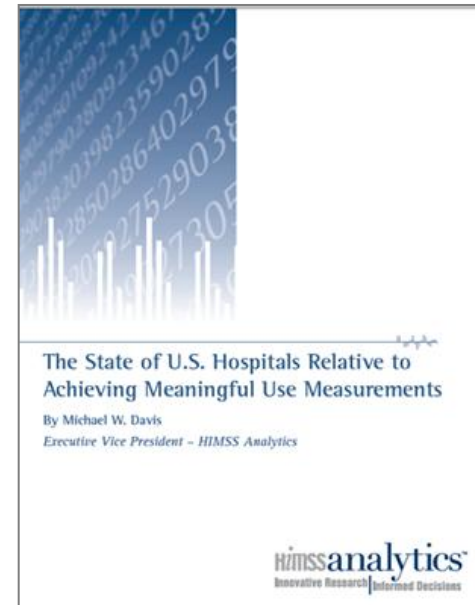


HIMSS report on hospital readiness to meet meaningful use criteria highlights several gaps

Focus on EHR

Hospital Bed Size	CPOE			CPOE Mandated by System			Physicians Using CPOE		
	Segment Count	Percent	Total Count	Segment Count	Percent	Total Count	Segment Count	Percent	Total Count
0-100	818	31.28%	2,615	36	1.38%	2,615	139	5.32%	2,615
101-200	486	48.99%	992	39	3.93%	992	116	11.69%	992
201-300	366	58.94%	621	38	6.12%	621	106	17.07%	621
301-400	252	63.64%	396	18	4.55%	396	56	14.14%	396
401-500	143	65.60%	218	19	8.72%	218	46	21.10%	218
501-600	111	76.03%	146	13	8.90%	146	35	23.97%	146
More than 600	135	74.59%	181	19	10.50%	181	55	30.39%	181
All	2,311	44.71%	5,169	182	3.52%	5,169	553	10.70%	5,169

Hospital Bed Size	Data Warehousing/Mining - Clinical		
	Segment Count	Percent	Total Count
0-100	412	15.76%	2,615
101-200	287	28.93%	992
201-300	195	31.40%	621
301-400	134	33.84%	396
401-500	89	40.83%	218
501-600	45	30.82%	146
More than 600	74	40.88%	181
All	1,236	23.91%	5,169



Editorial: Much of the gap is in CPOE and data mining.

MGMA says physicians won't be eligible for EHR incentives

Focus on EHR

Healthcare IT News reporting from the annual MGMA meeting.

Most practices will miss the 2011 deadline. (Robert Tennant, Sr. Policy Advisor)

Physicians are postponing capital investment because of the economic downturn. (Bill Jessee, MD, President)

Incentives have created buzz and a lot of confusion. (Principal with MGMA consulting)

Editorial: Here's a dose of realism into a very hyped market

Healthcare **IT** News



WSJ Health Blog: Senator Grassley letter to EMR vendors

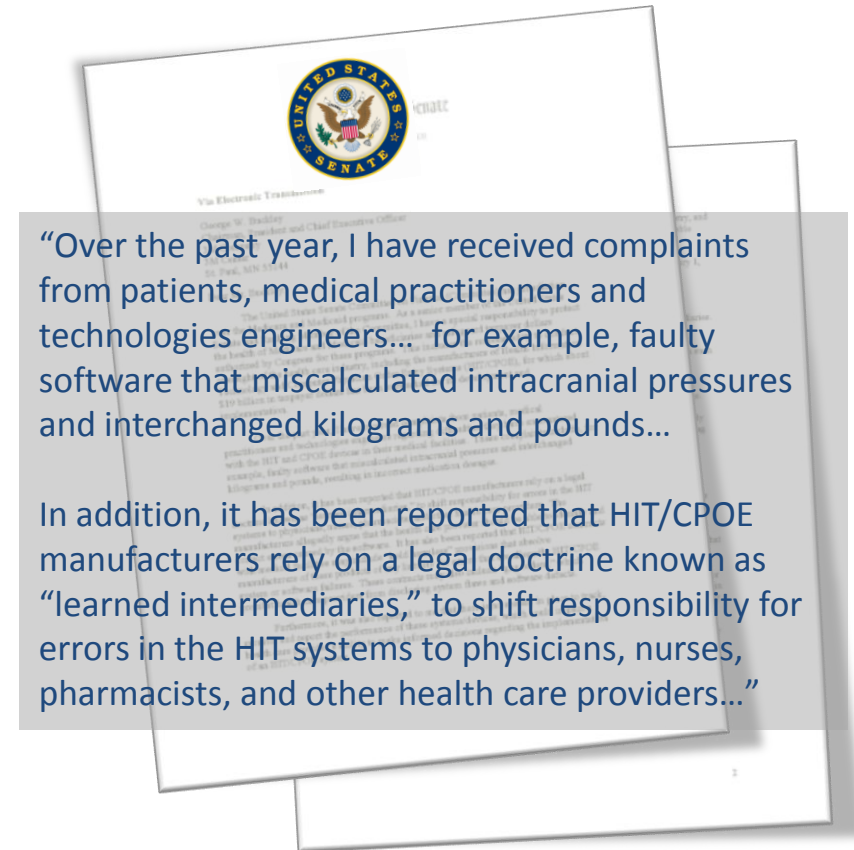
Focus on EHR

Letter was sent to these HIT companies

3M	Eclipsys
Allscripts	Epic Systems
Cerner	McKesson
Cognizant	Perot Systems
Computer Sciences	Philips Healthcare

Key contract issues of interest

- Hold harmless
- Learned intermediaries
- Adequate training
- Complaint tracking
- Financial incentives
- Settlement agreements



Editorial: A reminder that the government incentives will bring much greater scrutiny.

Tracking HITECH in 2009

Top stories of the year

In March we understood the magnitude of the federal commitment at \$44B in provider incentives and \$2B-\$3B in infrastructure support.

ARRA incentives summary (updated) [March ▶](#)

We also learned that 2011 incentives would apply as the first year even if a provider started later.

ARRA incentives details (updated) [March ▶](#)

In June the notion of three ways to get certified had gained momentum: comprehensive, modular, or self-developed. It was described by CCHIT who has been positioning to be the de facto credentialing agency. This has opened up the process to potentially lighter, lower cost solutions.

CCHIT announces three paths to certification of EHRs instead of just one approach [June ▶](#)

The broad scope of meaningful use metrics were released in July with recommendations made subsequently to scale back to some simpler measures to get started. But, directionally, we have a roadmap.

Key 2011 measurement criteria for “meaningful use” of EHRs reported generally as a percent of population [July ▶](#)

The grant money to support EHR adoption and interoperability is getting better defined and the proposal process has begun. The major projects include the following:

\$564M for statewide HIEs (\$4M-\$40M per state)

\$220M for 15 Beacon Community HIEs (\$10M-\$20M each)

\$598M for Regional Extension Centers for implementation support

\$1.5B for Community Health Centers

Here are links to the stories:

HHS announces \$1.2B in grants [August ▶](#)

HHS announces \$220M grant for leading HIEs [December ▶](#)

ARRA incentives summary (updated)

Tracking HITECH

Incentives

Over 90% of the money, around **\$44B** between Medicare and Medicaid incentives to providers

Available to physicians and hospitals using certified EHRs for “meaningful use”

Up to **\$44,000** per physician (Medicare incentives)

Beginning in 2011 spread over four years with disincentives beginning in 2015

Infrastructure

Less than 10% of the money, around **\$3B**

\$564M for statewide HIEs (\$4M-\$40M per state)

\$220M for 15 Beacon Community HIEs (\$10M-\$20M each)

\$598M for Regional Extension Centers for implementation support

\$1.5B for Community Health Centers

Privacy

Extending HIPAA to business associates

Increased breach reporting of disclosures among entities

Increased documentation of PHI transactions

Editorial: The state HIEs, beacons and extension centers will likely get a lot of attention in 2010. And we are already hearing that the HITECH incentives are keeping the EMR market moving in what has otherwise been a deep downturn.

ARRA incentives details (updated)

Tracking HITECH

Year 1 st Filed	Amount Received Each Year (in thousands)						
	2011	2012	2013	2014	2015	2016	Total
2011	\$18	\$12	\$8	\$4	\$2	-	\$44
2012	-	\$18	\$12	\$8	\$4	\$2	\$44
2013	-	-	\$15	\$12	\$8	\$4	\$39
2014	-	-	-	\$12	\$8	\$4	\$24
2015 or later	-	-	-	-	-	-	\$0

Physicians begin losing opportunities to earn incentives in 2013. Beginning in 2015, physicians not demonstrating meaningful use will have their Medicare fee schedule reduced.

For 2015, down to 99 percent of the regular fee schedule

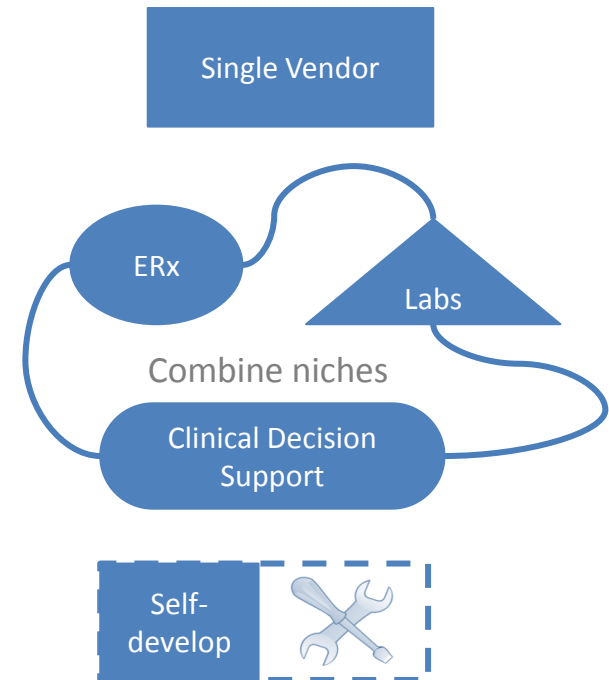
For 2016, down to 98 percent

For 2017 and each subsequent year, down to 97 percent

CCHIT announces three paths to certification of EHRs instead of just one approach

Tracking HITECH

1. Rigorous certification of comprehensive EHR systems that significantly exceed minimum requirements
2. A new, modular certification program for electronic prescribing, personal health records, registries, and other technologies which could be combined
3. A simplified, low cost site-level certification for self-developed approaches



Editorial: This was an important step in concept; opening up to a modular option. This will allow companies to pull pieces together from niche solutions and potentially compete with the more integrated solutions.

Key 2011 measurement criteria for “meaningful use” of EHRs reported generally as a percent of population

Tracking HITECH

1. % diabetics with A1c under control
2. % hypertensive patients with BP under control
3. % of patients with LDL under control
4. % of smokers offered smoking cessation counseling
5. % of patients with recorded BMI
6. % eligible surgical patients who receive VTE prophylaxis
7. % of orders (for medications, lab tests, procedures, radiology, and referrals) entered directly by physicians through CPOE
8. Use of high-risk medications (Re: Beers criteria) in the elderly
9. % of patients over 50 with annual colorectal cancer screenings
10. % of females over 50 receiving annual mammogram
11. % patients at high-risk for cardiac events on aspirin prophylaxis
12. % of patients who received flu vaccine
13. % lab results incorporated into EHR in coded format
14. Stratify reports by gender, insurance type, primary language, race ethnicity
15. % of all medications, entered into EHR as generic, when generic options exist in the relevant drug class
16. % of orders for high-cost imaging services with specific structured indications recorded
17. % claims submitted electronically to all payers
18. % patient encounters with insurance eligibility confirmed
19. % of all patients with access to personal health information electronically
20. % of all patients with access to patient-specific educational resources
21. % of encounters for which clinical summaries were provided
22. Report 30-day readmission rate
23. % of encounters where med reconciliation was performed
24. Implemented ability to exchange health information with external clinical entity (specifically labs, care summary and medication lists)
25. % of transitions in care for which summary care record is shared (e.g., electronic, paper, e-Fax)
26. Report up-to-date status for childhood immunizations
27. % reportable lab results submitted electronically
28. Full compliance with HIPAA Privacy and Security Rules
29. Conduct or update a security risk assessment and implement security updates as necessary

Editorial: While MU will be scaled back significantly for 2011, this list remains the longer term target.

HHS announces \$1.2B in grants

Tracking HITECH

\$598M for the HIT Extension Program

Set up 70 regional extension centers to help physicians and hospitals implement EHRs

Targeting 100,000 primary care clinicians in small group practices via non-profit organizations

Individualized, on-site support: selection, implementation; workflows; regulatory

Additional \$45M for years 3-4

\$50M to up a national HIT Resource Center for best practices

\$564 for the State HIE Grant Program

Set up EHR connectivity between and among providers

Set up governance, policies and network services within the broader national framework

Ensure privacy



HHS.gov/Recovery



Note: Announcement included this video tour of a paperless hospital

HHS announces \$220M grant for leading HIEs

Tracking HITECH

Beacon Community Cooperative Agreement Program



HHS.gov/Recovery

The program will provide funding to HIE leaders

- Advanced rates of EHR adoption

- Ready to implement community-level care coordination

- Ready to implement quality monitoring and feedback

15 HIEs will get \$10M to \$20M each and disseminate best practices nationally

Additional grants announced

SHARP: \$60M in research into barriers of adoption

- Security, decision support, architecture and use of EHR data

HIT workforce training: \$38M



Focus on Care Communications in 2009

Top stories of the year

The year began with a bombshell from CMS. It stopped its disease management pilots with eight leading DM companies concluding the methods don't work so well and cost too much.

CMS disease management pilots unsuccessful [January](#) ▶

The rest of the year, stories appeared highlighting other care communications approaches that may hold promise for the future. Remote patient monitoring is one of these.

Remote Patient Management: Technology-Enabled Innovation And Evolving Business Models For Chronic Disease Care [February](#) ▶

Another approach is to leverage the EMR as Kaiser has been able to do because of its integrated model.

If You Build It, Will They Come? The Kaiser Permanente Model of Online Health Care [March](#) ▶

The WSJ profiled another idea in April and again in July that's gaining traction – telehealth. American Well and others are connecting patients and physicians in virtual visits and support patient-physician communications.

WSJ profiles the rise of telehealth services [April](#) ▶

Wall Street Journal highlights e-visits [July](#) ▶

A related approach is tele-presence being piloted by Cisco which allows for a virtual face-to-face experience.

United Health and Cisco launch a physician tele-presence network called "Connected Care" [July](#) ▶

Another approach with more basic technology using inbound patient calling was having good results at Henry Ford.

Henry Ford reports good early results for monitoring heart failure patients [September](#) ▶

The pharmacist is also an emerging part of the care communications solution. Another study released in June shows positive outcomes from pharmacist services in a hypertension program. And leveraging the convenient care venues of major pharmacies helps put care communications right in the patient's community.

Study suggests that pharmacist intervention improves outcomes; in this case, hypertension [June](#) ▶

CVS Minute Clinic and Alere partner in an alliance to provide face-to-face and web-based DM services [September](#) ▶

Manufacturers are also beginning to bake medication adherence programs into managed care contracts. This will create additional momentum.

NYTimes reports that patient medication adherence is getting baked into drug manufacturer deals with health plans [May](#) ▶

CMS disease management pilots unsuccessful

Focus on Care Communications

The second Medicare Health Support report has been delivered to Congress, and the news is not good: the program didn't achieve much improvement, while costing more than it saved

MHSO	Target geography	MHSO launch date	MHSO revised termination date	MHSO original termination date
Healthways	Maryland and District of Columbia	8/1/2005	n/a	7/31/2008
LifeMasters Supported SelfCare	Oklahoma	8/1/2005	12/31/2006	7/31/2008
Health Dialog Services Corporation	Pennsylvania (western region)	8/15/2005	n/a	8/14/2008
McKesson Health Solutions, LLC	Mississippi	8/22/2005	5/31/2007	8/21/2008
Aetna Life Insurance Company	Chicago, IL (surrounding area)	9/1/2005	n/a	8/31/2008
CIGNA Health Support	Georgia (northern region)	9/12/2005	1/14/2008	9/11/2008
Green Ribbon Health	Florida (west-central region)	11/1/2005	8/15/2008	10/31/2008
XLHealth Corporation	Tennessee (selected counties)	1/16/2006	7/31/2008	12/31/2008

Editorial: Next to the ARRA HITECH incentives, this story is one of the big drivers of HIT in the future. As a result we are seeing increased support for technology-assisted DM solutions and projects that bring the physician practice into the care management workflow.

Remote Patient Management (RPM): Technology-Enabled Innovation And Evolving Business Models For Chronic Care

Focus on Care Communications

RPM is a transformative technology that improves chronic care management while reducing net spending for chronic disease.

Broadly deployed within the VHA and in other trials, RPM has been shown to support patient self-management, shift responsibilities to non-clinical providers, and reduce the use of emergency department and hospital services.

These technologies offer major opportunities to advance national goals of improved quality and efficiency in health care.

This report describes their evolution, the experiences of early adopters, and the business models that may support their deployment.

Editorial: Remote monitoring is growing despite weak reimbursement support from healthcare payers. It will have broad impacts in the future.

From the Report: RPM is a disruptive technology

Its use relies upon a reorganization of care processes

Physiologic monitoring

Protocol driven decision support

Newly defined roles for clinical and nonclinical providers

Telecommunications

Places patients at a distance in space, and frequently time, from the providers of their care

Relies on a disruption of the usual business model for care of chronic disease

Shifting some responsibilities to the patient and nonclinical providers

Reducing use of and revenues for emergency departments (EDs), hospitals, and skilled nursing facilities

Producing a net reduction in the total cost of care for chronic disease.

Health Affairs, 28, no. 1 (2009): 126-135, Molly Joel Coye, Ateret Haselkorn and Steven DeMello

If you build it, will they come? The Kaiser model of online care.

Focus on Care Communications

Review of KP's member portal in *Health Affairs*

Currently over 25% of members have access to the following functions

PHR: *My Health Manager*

Clinical transactions: appointments and prescriptions

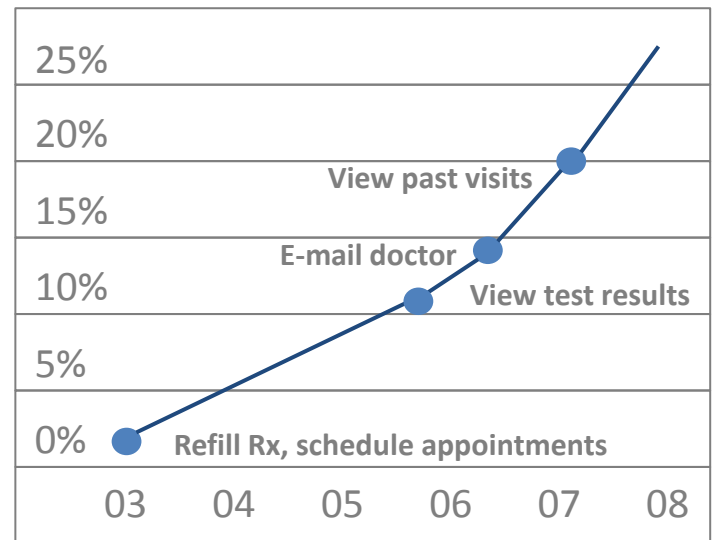
Act as a proxy for a relative

E-mail providers and member services

Wellness including health risk assessments and web coaching

Account management tools

Users with site access as % KP membership



● Date 80% of site members had access

Editorial: This is one of a number of articles highlighting how Kaiser's integrated environment and deep use of HIT is making a difference in outcomes and satisfaction.

WSJ profiles the rise of telehealth services

Focus on Care Communications

American Well (HI)

\$45 for 10 minute consult; \$10 co-pay

Communicate with doctors via online video, text messages, or phone

Doctors can prescribe meds and view patient records via Microsoft's HealthVault

SwiftMD Inc. (NY & NJ)

\$18 one-time and \$9 a month plus \$59 per consult

Appointments within 30 minutes by phone or through online video chat

TelaDoc (Dallas)

Open to anyone to schedule a phone consultation with a physician for a fee



Example of online video experience

Editorial: These kinds of services will likely be a part of future physician – patient relationships, particularly with increasing access to broadband services.

NYTimes reports that patient medication adherence is getting baked into drug manufacturer deals with health plans

Focus on Care Communications

Merck is linking the price CIGNA pays for diabetes drugs to how well patients' blood sugar is controlled.

- Bigger discounts on Januvia and Janumet for Type 2 diabetes patients
- The assumption that Cigna will push for patient-compliance programs
- Greater if patients' blood sugar is better controlled
- Better formulary placement

P&G and Sanofi-Aventis will pay Health Alliance for the cost of treating fractures for members who are adherent on the osteoporosis drug Actonel.

- Nonspinal fracture and adherence with Actonel
- E.g., \$30,000 for a hip fracture and \$6,000 for a wrist fracture.
- Reduce the pressure to move patients off Actonel to generic Fosamax



Editorial: If these kind of arrangements continue, we'll likely see an increase in payer and manufacturer support for medication adherence and gaps-in-care communications.

Study suggests that pharmacist intervention improves outcomes; in this case, hypertension

Focus on Care Communications

Study results indicated that pharmacist intervention decreases the risk of adverse drug events (ADEs) and medication errors

Reviewed 800 cases of hypertension in outpatients

The pharmacist intervention included:

- Education about the medication
- Barriers to appropriate drug use
- Coordination with primary care providers
- Icon-based labeling and therapeutic monitoring

Finding: 34% lower risk of ADEs and medication errors



Editorial: As pharmacies complete their investment in HIT they will free up pharmacist time to engage in medication therapy management and other clinical functions in the community.

United Health and Cisco launch a physician tele-presence network called “Connected Care”

Focus on Care Communications

United and Cisco are partnering to develop the first national telehealth network

First showcased as Project Hope using mobile vans in rural New Mexico

It’s an open network that will integrate multiple vendors’ technologies with EHRs and other IT

Allows real-time virtual face-to-face interactions

It’s been piloted in San Jose, CA, Scotland and New Zealand

Editorial: Colleagues that have seen this technology in person are very impressed with how functional it is. Over time this will be commonplace.



Wall Street Journal highlights e-visits

Focus on Care Communications

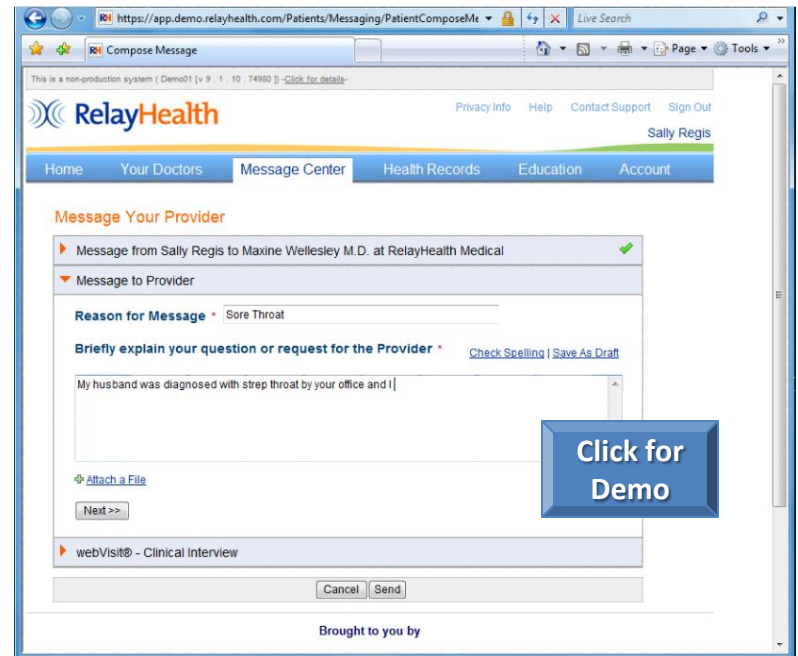
39% of doctors communicate with patients online more than doubling in 5 years (Manhattan Research)

Most common services: paying bills, sending lab results and scheduling appointments

Aetna, Cigna and Blues in FL, HI, NC cover e-visits and WellPoint and Humana are piloting

Most common conditions: sinusitis, cold and flu, urinary infections, coughs, back pain and insomnia

Co-pays of \$10 and self pay of \$20-\$35 are typical



Editorial: The WSJ has been a consistent supporter of on-line visits. There is continued evidence of slow but steady increase in confidence by major payers.

Henry Ford reports good early results for monitoring heart failure patients

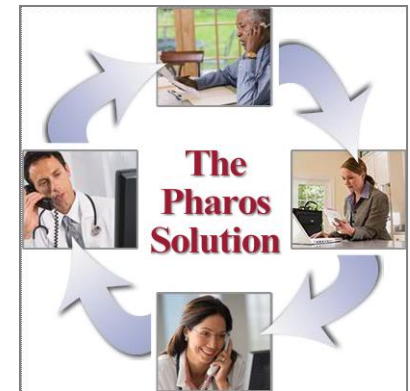
Focus on Care Communications

The program deployed Pharos Innovations' Tel-Assurance® remote patient monitoring platform

36% reduction in expected all-cause hospital admissions for enrolled heart failure patients after six months of enrollment and a return of 2.3:1 vs. program costs

Participant phones in or logs on and reports behavior and clinical measures daily

Case managers monitor and intervene by phone when appropriate



Editorial: One aspect of this report that's particularly intriguing is the inbound patient calling and the automation of a question and answer session over the phone or web. This technology is becoming widely available and seems like it can fit into a variety of solutions.

CVS Minute Clinic and Alere partner in an alliance to provide face-to-face and web-based DM services

Focus on Care Communications

Patients served by CVS Caremark's Accordant disease management programs get access to Alere services.

Alere customers get access to direct service by MinuteClinic retail health clinic nurse practitioners and CVS pharmacists.

Customers of both companies will have access to a broad array of services.

- High touch, face-to-face services at the clinics and pharmacies
- In-home monitoring, telephonic and web-based offerings of Alere

Alere is a wholly-owned subsidiary of Inverness Medical Innovations (NYSE: IMA).



Editorial: The combination of face-to-face interventions in the community with web-based follow ups is in line with where DM is going.

Focus on Other Key Stories in 2009

Top stories of the year

Social media is having broad impact in society and will likely impact HIT as well. One story that captures some of this future sense is the launch of Sharecare, by Jeff Arnold, the entrepreneur who created WebMD.

Sharecare.com launches a new healthcare search and social media site backed by big media (social media) [November](#) ▶

We will cover social media and HIT more closely in 2010.

Another area likely to be of increasing importance is how the various models of health information exchange (HIE) evolve over time. In July, eHI published a summary of the current state-of-the-art.

eHI publishes updated HIE report and highlights growth to 57 active HIEs (health information exchange) [July](#) ▶

We will cover HIE activities more closely in 2010.

Sharecare.com launches a new healthcare search and social media site backed by big media

Focus on Social Media

Health Q&A format and social network as foundation of new eco-system

Created by Jeff Arnold and Dr. Mehmet Oz, in partnership with Harpo Productions, HSW International, Sony Pictures Television, and Discovery Communications

Hospitals and Academic Medical Centers. Cleveland Clinic, Johns Hopkins Medicine, and New York-Presbyterian Hospital

Leading health and wellness authors. Drs. Oz, Roizen, Ornish and Deepak Chopra (new publishing business model licensing chapters in books)

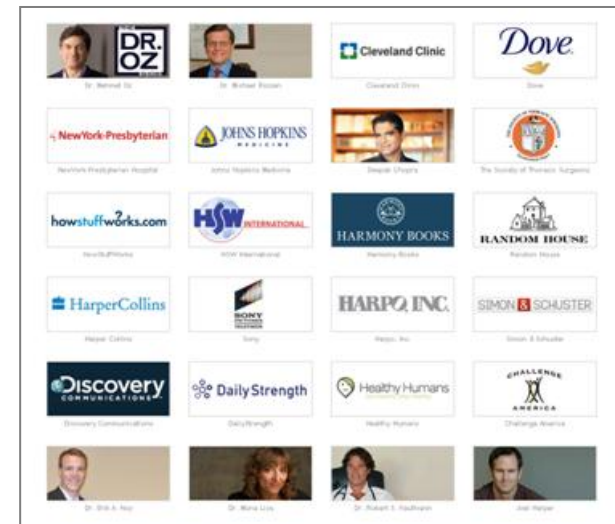
Associations/Societies. Society of Thoracic Surgeons

Healthcare professionals. Drs. Kaufmann, Hoy, Lisa

Online healthcare resources. Discovery Health, HowStuffWorks.com, and Oprah.com

Consumers. Daily Strength web site

Not for profits. Challenge America



Editorial. Jeff Arnold is a visionary who has pulled together an impressive array of health and media assets to compete in consumer health search. This feels similar in style to his creation of WebMD.

Commentary

Endnote

It's been an important year in the history of HIT.

E-prescribing hit the tipping point with over 20% adoption as the function gets folded into EMRs. Standalone solution vendors look to partner with others as payers look for broader solutions.

Larger practices continue to adopt EMRs with adoption rates over 50% from a handful of leading suppliers who look to attract smaller practices through health systems and hosted architectures. New types of lighter solutions are emerging as well.

The outlines of HITECH are in place with more specifics due out shortly. HIEs and regional extension centers will play important roles next year as they help practices get to meaningful use.

The decline of traditional DM models and the rise of newer, technology-assisted solutions marked the growth of care communications this year. Remote patient monitoring, physician-patient communications and forms of telepresence are likely to gain further foothold in the market. And social media may have more direct impact in HIT.



The green car, William Glackens, 1910

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