Focus on E-prescribing
- CVS Caremark and Allscripts work together to move iScribe users to Allscripts products
- E-prescribing is shown to increase compliance with OTC drug

Focus on EHR
- According to the CDC four out of ten docs use some parts of an EMR
- European Commission reports on the impact of interoperable EHRs
- Study shows that EHRs are not so effective in coordinating care outside the practice
- Physicians are more likely to report adverse events through an EMR
- Community clinical laboratories are impacted by EHRs and meaningful use priorities
- IDC Health Insights rates eClinicalWorks best in both larger and smaller practices on market fit and ownership confidence
- IBM and GE provide aggressive financing for HIT
- AdvancedMD buys PracticeOne

Focus on Health Information Exchange
- Lawson buys Healthvision and positions for the health information exchange market

Focus on Care Communications
- Medco aligns with community pharmacies to close gaps in medication use for State of IL employees
- Parents of children with diabetes support using mobile phone technology in treatment
- Text messaging works for sunscreen adherence
- AMedNews highlights participatory medicine and HIT
- Accenture reports on new technologies for chronic care
- Center for Technology and Aging issues a white paper on how technology is helping seniors with medication use
- MediConnect Global buys PassportMD bringing together complementary approaches to the PHR

New Year Forecasts
- HealthLeaders predicts smartphone apps for 2010
- 2010 Trends in Social Media
- PricewaterhouseCoopers 2010 healthcare trends show a strong HIT influence
- Annual forecast by health economist, Jane Sarasohn-Kahn

Commentary
- End note: Front Row Orchestra
CVS Caremark and Allscripts work together to move iScribe users to Allscripts products

Focus on E-prescribing

The iScribe e-prescribing product has been utilized by selected Caremark payer clients in programs that were free to participating physicians.

About 3,000 physician users were deployed.

CVS is retiring the product.

It will work with Allscripts to transition users to Allscripts ePrescribe, also free to physician practices, or another product.

Financial terms, if any, were not disclosed.

Editorial: Here’s another indication that standalone e-prescribing, or payer-based e-prescribing is waning in favor of more comprehensive solutions targeting meaningful use. ZixCorp and eHealth Solutions, similarly, have yet to find a buyer of their e-prescribing assets.
E-prescribing is shown to increase compliance with OTC drug

Focus on E-prescribing

Study of 245 women post GYN exam.

One group was counseled to take an OTC calcium carbonate with a vitamin D supplement.

The other group was given an electronic prescription in addition to the counseling.

At six months, women with e-scripts were more than twice as likely to report having taken the calcium than the control.

Editorial: Study details weren’t available. We don’t know if the control group was given a written prescription (we assume so) or if the researchers discussed the behavioral dynamics. These results are very encouraging and should be further explored.
According to the CDC four out of ten docs use some parts of an EMR

*Focus on EHR*

**43.9%** of the physicians reported using all or partial EMR/EHR systems (not including systems solely for billings) in their office-based practices.

**20.5%** reported having systems that met the criteria of a basic system.

Demographics, problems, notes, med list and results display.

**6.3%** reported that of a fully functional system.

Above plus med history, e-prescribing, test orders, drug interactions, gaps-in-care reminders.

*Editorial:* All categories continue to grow. Larger practices are a mainstream market. The smallest practices are still in early adopter mode.
European Commission reports on the impact of interoperable EHRs

Focus on EHR

Reports on 10 case studies of e-prescribing and EMR projects in Europe

Scotland, UK; Geneva, Switzerland; Sofia, Bulgaria; Andalucía, Spain (2); Kronoberg County, Sweden; Kolín-Čáslav, Czech Republic; Rhône-Alpes Region, France; Lombardy, Italy (Evanston, IL and Israel are qualitative only).

1 Benefits pay out over 7-9 years.

2 Providers bear most of both costs and benefits.

3 Over 90% correlation between who pays and who benefits.

Editorial: A number of years ago, CITL published a similar analysis for the US and found that healthcare payers get most of the benefits, while providers accrue most of the costs.
Study shows that EHRs are not so effective in coordinating care outside the practice

*Focus on EHR*

Phone interviews:

- 52 physicians from 26 practices that have deployed an EMR for 2 years.
- 4 vendor chief medical officers and 4 national thought leaders.

Coordination inside the practice was supported by many EMR features.

Coordination externally had most of the challenges.

- Templates can load up notes with boilerplate and make them hard to read quickly.
- EMRs may not have comprehensive applications for referral tracking.
- Coordinating structured, codified data between different systems is difficult, most attached scanned documents as PDFs.
- Notes may target satisfying billing issues and not clinical care coordination.

*Editorial:* The 6-task model captures the relevant issues. The study is a good summary of the interoperability and medical home issues that will continue to be discussed as physicians implement EMRs.

**Principal tasks necessary for effective care coordination**

1. Maintaining patient continuity with the PCP/primary care team.
2. Documenting and compiling patient information generated within and outside the primary care office.
3. Using information to coordinate care for individual patients and for tracking different patient populations within the primary care office.
4. Referrals and consultations (initiating, communicating and tracking).
5. Sharing care with clinicians across practices and settings.
6. Providing care and/or exchanging information for transitions and emergency care.
Physicians are more likely to report adverse events through an EMR

Focus on EHR

300 primary care physicians surveyed, 2/3 utilized some form of an EHR system and 1/3 used a paper-based system.

50% of all physicians reported they are much more likely to report adverse events through an EMR.

That rises to 60% of users of a fully functional EHR.

60% of all physicians agreed that reporting adverse events through an EMR improves patient care.

Editorial: The study is not yet publically available, just the press release. Analysts covering this story suggested it takes 40 minutes to complete an adverse event report without an EMR.
Community clinical laboratories are impacted by EHRs and meaningful use priorities

Focus on EHR

Implementation of EMRs may be disruptive for some clinical laboratories.

Lab order entry is an early stage element in recently released meaningful use definitions.

Clinical labs will need to integrate with EMRs for lab orders or may lose significant market share.

The integration is complex and workflow integration issues difficult.

- Ask at order entry (AOE).
- Medicare advanced benefit notice (ABN) checks.
- Specimen draw requirements.
- Directory of services integration.

Quest Diagnostics and LabCorp could extend their lead in this type of market.
IDC Health Insights rates eClinicalWorks best in both larger and smaller practices on market fit and ownership confidence

*Focus on EHR*

*Editorial:* Two thoughtful analytic reports that rate products on weighted criteria outline why eCW is winning a number of deals. The link lower right returns the IDC pdf files from the eCW site.
IBM and GE provide aggressive financing for HIT

Focus on EHR

GE announced its Stimulus Simplicity Program for hospitals and physician offices.

0% financing, deferred payments from GE Capital and a certification warranty for the EMR solutions from GE Healthcare.

IBM announced four new partners for its EMR financing program.


The program can also wrap IBM’s services into a financing package.

Editorial: Previously Dell announced a financing program for Allscripts and eClinicalWorks as part of its work with health systems and their affiliated practices.
AdvancedMD buys PracticeOne

Focus on EHR

AdvancedMD is a web-based practice management and billing solution for physician practices.

It announced acquisition of PracticeOne, a web-based EMR and patient portal solution, that is CCHIT-certified.

This creates a comprehensive clinical and financial solution with a software-as-a-service (SaaS) architecture.

Deal terms were not disclosed.

Editorial: This is likely a prototype for additional M&A between practice management solutions and EMRs, particularly web-based versions. PracticeFusion, a competitor, announced this month it has reached 25,000 users with its SaaS solution that it offers free to physicians.
**Provider Incentives**

$34B 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 and Support**

$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

$112M for training at community colleges and universities

$60M for SHARP, research in security, patient-centeredness, new architectures, secondary use
Meaningful Use Functional Requirements

Tracking HITECH

Care Quality, Safety and Efficiency

- Physicians orders
- Rx interactions
- Problem list
- E-prescribing
- Active Rx list
- Allergy list
- Demographics
- Vital signs

- Smoking status
- Structured lab results
- Patients by condition
- Quality measures
- Patient reminders
- Clinical decision rules
- Insurance eligibility
- Electronic claims

Patient Engagement

- Electronic copy of info
- Patient on-line access
- Clinical summaries

Care Coordination

- Info exchange
- Rx reconciliation
- Continuity of care

Other

- Immunization registries
- Surveillance data
- Privacy and security

Editorial: The MU functionality is a comprehensive collection of basic features that have been available although not necessarily widely adopted. The patient engagement and care coordination may open up strategies for niche companies. It is likely there will be some softening. A related document on certification standards was also released adding more clarity to each measure. Both are available through the links at right.
Meaningful Use Quality Measures

For all specialties

- Tobacco use screening
- Blood pressure
- Drugs avoided for elderly

Specific lists for each of 15 specialties. Examples follow.

- Beta blockers and statin after MI
- A1c, LDL and BP control in diabetes
- Mammography, colorectal, cervical cancer screening
- Timing of antibiotic prophylaxis
- Use of imaging in low back pain
- Antibiotic use for ear infections
- Antidepressant medication use for major depressive disorder

Most measures are cross-referenced to PQRI and NQF

*Editorial:* The quality measures refer back to the functional item “quality. Measures.” These are also basic metrics by specialty and include lab results, vitals, prevention, safety and gaps in care functions.
A learning health system that is patient-centered and uses information to continuously improve health and health care of individuals and the population.

**Meaningful Use of HIT.** Improve health outcomes, patient engagement, care coordination, and efficiency of the health care system by promoting the adoption and meaningful use of health information technology.

**Policy and Technical Infrastructure.** Enable electronic health information exchange through the development and support of appropriate policies and technical specifications.

**Privacy and Security.** Build public trust and participation in HIT and electronic health information exchange by incorporating privacy and security solutions in every phase of its development, adoption, and use.

**Create a Learning Health System through Effective Use of HIT.** Transform the current health care delivery system into a high performance, learning health system by leveraging information and technology.

*Editorial:* Here’s a revised vision from the Administration for the HIT work ahead. Four underlying themes and the goals for each. The framework includes more detailed principles and strategies.
HHS is pursuing a national claims database as part of its comparative effectiveness research (CER) goals

A comparative effectiveness research (CER) advisory group has recommended a longitudinal claims database.

HHS has access to claims from its CMS repository, a chronic conditions warehouse and Medicaid database.

HHS will contract for a study to describe how it can build an all-payer, all-claims database.

HHS believes “Claims data, especially if established in a manner where it can be linked to other data over time, can be powerful a tool for CER and ultimately improve care for all Americans.”
Lawson buys Healthvision and positions for the health information exchange market

Focus on HIE

Lawson is a leader in administrative software for hospitals.

It acquires Healthvision, through QuovadRx Holdings for $160M cash.

With this transaction, Lawson gets the ability to enter the HIE market.

Cloverleaf, leading integration engine for HL7 and other transactions

Enterprise master patient index

Platform to connect hospitals and physician practices

Light EMR software, primarily implemented in the Canadian market

Editorial: QuovadRx used public funding to acquire HIT brands: Healthvision, Cloverleaf, Healthcare.com, CareScience, Confer, Pixel, Outlaw and others.
Medco aligns with community pharmacies to close gaps in medication use for State of IL employees

Focus on Care Communications

Medco is launching a medication adherence and gaps in therapy program for State of IL employees.

It is focused on complex chronic patients in cardiovascular, diabetes, pulmonary and neuroscience.

University of IL will train 100 pharmacists to use the Mirixa engine and Medco-developed real-time alerts to counsel patients, close gaps in therapy and coordinate with physicians.

The project is planned for 6 months.

Editorial: This will be an interesting and important project. Pharmacy has great potential to play a big role in care management if it can use pharmacists cost effectively. It’s also another opportunity for Mirixa to demonstrate its platform.
Parents of children with diabetes support using mobile phone technology in treatment

Focus on Care Communications

Center for Connected Health Study

Web survey of 202 parents of children 10-19 years with Type 1 or 2 diabetes.

Asked about attitudes towards using a mobile phone that could collect and transmit the child’s blood sugar readings to a doctor.

69% of respondents has a very positive response.

27.7% said they would definitely sign up for the service; an equal number said they would probably do so.

Access to the child’s provider was the most prevalent concern of parents about supporting diabetes care.
Text messaging works for sunscreen adherence

*Focus on Care Communications*

70 volunteer subjects over 18 with cell phones and who know how to get text messages.

Half of the participants received daily text message reminders via cellular telephone for 6 weeks, and the other half did not receive reminders.

The text message reminders consisted of two components: a “hook” text detailing daily local weather information and a “prompt” text reminding users to apply sunscreen.

Group without reminders: daily adherence was **30%**.

Group getting reminders: adherence was **56%**.

**69%** said they would continue after the study.

**89%** said they would recommend it to others.

*Editorial*: Simple study with great results.
AMedNews highlights participatory medicine and HIT

Focus on Care Communications

How technology fits into participatory medicine

**E-mail.** Patients can alert doctors ahead of an appointment about what they want to discuss, reducing the time it usually takes to find out what's wrong and allowing the doctor prep time to gather data to share.

**Personal health records.** Having access to a patient's personal health record will help you coordinate your efforts with those of other physicians or caregivers.

**Patient portals.** Besides offering secure communication and appointment scheduling, patient portals can allow patients to view their medical records and upload them to a personal health record to share with other caregivers.

**Social networking sites.** Many patient communities exist online where patients can connect and share information. Physicians could moderate the sites to ensure that patients are accessing reliable information.

**Home monitoring devices.** Physicians can monitor chronically ill patients while reducing the frequency of office visits.

**Electronic medical records.** A fully functional EMR can be the centerpiece of participatory medicine. It can be the repository for data collected by other connected technology.

*Editorial:* This model by Danny Sands, MD and Mohammad Al-Ubaydli, MD is a good outline of the emerging functionality.

Source: Daniel Sands, MD, MPH, internist at Beth Israel Deaconess Medical Center and director of the internet business solutions group for Cisco Systems; Mohammad Al-Ubaydli, MD, CEO of Patients Know Best; and other online sources.
Accenture reports on new technologies for chronic care

*Focus on Care Communications*

*Connected Health*: continuous, remote monitoring of chronic conditions, as well as online and mobile care

**Three Enabling Technologies**

Consumer health electronics will allow the seamless capture and sharing of patient information in real-world settings: from home, at the workplace or on the road.

Solutions that combine and interpret data about an individual’s health and wellness will encourage appropriate interventions before an acute situation occurs.

Solutions will also enable clinicians and health consumers to better use the information available for more effective decision making and actions.

*Editorial*: This is a good summary of the emerging technologies likely to play an important role in solutions for aging baby boomers. It makes the business case and highlights several examples of leading companies and healthcare organizations.
Center for Technology and Aging issues a white paper on how technology is helping seniors with medication use

Focus on Care Communications

Report discusses three areas where technologies can provide significant support for patients and providers dealing with medication issues.

Medication Reconciliation. Particularly important during transitions in care.

Medication Adherence. Ensure patient understanding and doses taken on schedule.

Medication Monitoring. Tracking outcomes over time with trending information.

The Medication-Use Process: Process Step Goals and Example Technologies for Patients and Caregivers

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Editorial: This is an in depth report on the medication management market. It includes benefits to the technologies and a market segmentation of solutions by step in the process.
MediConnect Global buys PassportMD bringing together complementary approaches to the PHR

Focus on Care Communications

MediConnect and PassportMD have similar approaches to the personal health record. Both digitize paper records from healthcare providers and store them for consumers.

MediConnect has been working with legal and insurance interests. PassportMD has been working more closely with consumers and their providers.

PassportMD is one of four PHRs in a Medicare demonstration project.

Editorial: We are beginning to see PHR-focused companies with different strategies looking to consolidate to construct more comprehensive offerings. This may be accelerated with patient connectivity elements in recently-released meaningful use provisions of the HITECH legislation.
HealthLeaders predicts smartphone apps for 2010

New Year Forecasts

1. **Augmented reality.** Point your phone at a hospital and get an interior map to your location.

2. **EMR integration.** More solutions like PatientKeeper that integrated with EMRs.

3. **Image viewing.** OsiriX and Blausen medical are examples of viewing on the iPhone.

4. **Mobile health monitoring.** Apple showed its iPhone interface to a glucose meter this year.

5. **Disease mapping.** HealthMap from MIT Media Lab can show “outbreaks near me.”

6. **Interactivity.** Users of health info from a hospital can ask questions of the staff.

7. **Mobile testing.** Physicians measure the curvature of the spine or EMTs learn CPR by pushing on the iPhone.

8. **Videos.** Procedures Consult gets patients prepared for surgery.

9. **Guidelines.** Physicians will have at-hand reference to clinical guidelines, used like ePocrates.

10. **Revamped reference apps.** Medical references, like ePocrates and UpToDate are maturing.

*Editorial:* iPhone apps are particularly important to the convergence of physician practice and care management. We’ll continue to track developments this year.
Social media begins to look less social. More exclusive lists will eliminate hyperactive posters and clutter.

Corporations look to scale. Best Buy's Twelpforce leverages hundreds of employees who provide customer support on Twitter.

Social business becomes serious play. Foursquare uses game-play and participant incentives to drive engagement.

Your company will have a social media policy (and it might actually be enforced). Likely focus is how to conduct yourself as an employee to what's considered competition.

Mobile becomes a social media lifeline. Employees will turn to their cell phones to connect if social media isn’t available on office PCs.

Sharing no longer means e-mail. NYTimes mobile makes it easy to share articles across networks like Facebook.

David Armano is a Senior Vice President at Edelman Digital, the interactive arm of global communications firm Edelman.
PricewaterhouseCoopers 2010 healthcare trends show a strong HIT influence

New Year Forecasts

1. The aftermath of health reform: get ready for a regulatory spin cycle. Overall implications of increased coverage and consumer demand.

2. Managing through the recession: getting more for less. Industry-wide cost reductions a priority and continued pricing pressure.

3. Government reimbursement moves to carrots and sticks. ARRA HITECH provider incentives for EHR.

4. The fine line between fraud and mistakes. Feds increase fraud and abuse budget by 50%.

5. Message received: Telecom companies integrate into health delivery. Technology and telecom become leading players in healthcare.


7. P-H Harmony: Physician groups rejoining with health systems. Physician groups will join health systems.

8. Care delivery continues to move out of traditional venues. Work-site and retail health clinics, home health, e-mail, telehealth and remote patient monitoring.

9. Battling the flu. H1N1 elevates emphasis on readiness for public health outbreak.

Jane sees more HIT innovation driven by lower cost technologies and innovative financing.

Providers get into financing too.  GE, IBM and big health systems.

Privacy and security remain big issues.  Tougher penalties in ARRA and publicized breaches.

A new and improved ONC.  Enabling lite solutions, easier connections, and more transparency.

Health IT help wanted.  We need 50,000 more professionals.

Remote monitoring in bed and at home.  Extend scarce clinical resources and conserve costs for institutions and patients.

Our telephone, ourselves.  Big Telco's (Verizon) and unique applications (MyBridge4Health).

Care beyond the home.  More iPhone and GPS apps.

Industry consolidation and new partnering.  Dell and Walmart lead.
A few trends stand out this month. The late December release of meaningful use rules by the Feds is much of the buzz. It’s pretty much a full EMR without the clinical note plus basic communications and a foundation of quality metrics. These last two are not easily handled and encourages patient-oriented and clinical analytic niche applications.

Mobile devices continue to become more functional for patients even when just text messaging is deployed. Many of the new year forecasters highlighted mobile as a trend also.

Updated adoption stats of 44% (full or partial) and 20% (basic EMR) confirm we’ll likely get adoption but utilization may be a longer haul. And we still don’t know how the smaller practices will go.

Like the elegant theater-goers in Hopper’s painting, we’re still a little early for the big show, but we’ve got a front row seat.
Note: If you would like to receive this report monthly via direct e-mail, please send a note to michael@michaellake.com.