

Health IT and Collaborative Care

Preconference Workshop

THIRD NATIONAL MEDICARE READMISSIONS SUMMIT

*The Leading Forum on Medicare 30-Day
Readmissions Policy and Technology-enabled
Strategies for Transitions of Care*

June 13 - 15, 2011

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Vince Kuraitis JD, MBA
Better Health Technologies, LLC

<http://e-CareManagement.com> blog

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8 Featured Apps

Work out with fitness apps that keep you motivated from treadmill to trail. [View apps for fitness](#) ▶



Apps for Around the House

7 Featured Apps

Let iPhone lend a hand around the house, at the store, and with family. [View apps for the household](#) ▶



Apps for Going Out

8 Featured Apps

Find places to eat, people to see, events to watch, and music to hear. [View apps for going out](#) ▶



Apps for Managing Money

9 Featured Apps

Money matters with apps that help you budget, save, and spend smart. [View apps for managing money](#) ▶

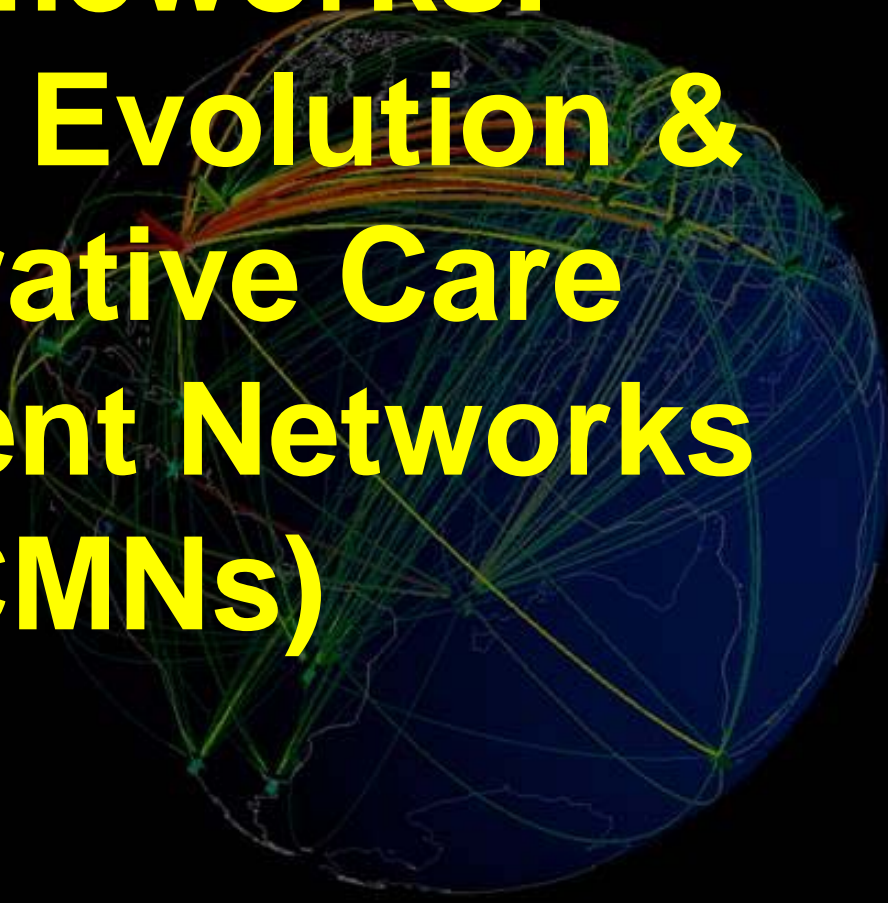


A Decade of Opening Up Platforms to 3rd Party App Developers



Overview

- I. Key Frameworks: (Health) IT Evolution & Collaborative Care Management Networks (CCMNs)**
- II. The Central Debate in Tech Circles: Walled Gardens vs. The Open Web**
- III. Health IT Evolution:**
- IV. The State of Care Management Technology & Integration**
- V. Clinical, IT, Business Strategy: From Company Centric to Network Centric**
- VI. Emergence and Rise of Collaborative Care Management Networks (CCMNs)**
- VII. Summary**

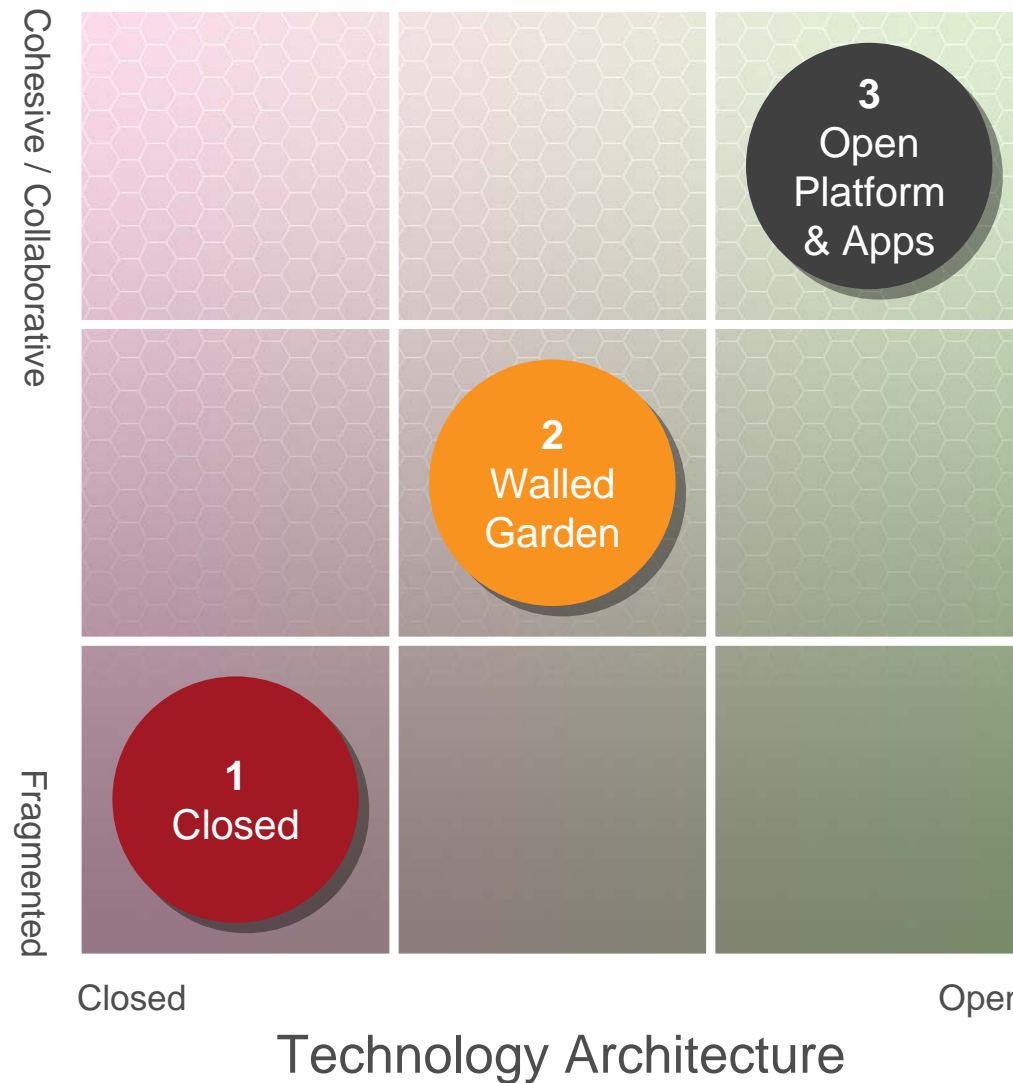


**I. Key Frameworks:
(Health) IT Evolution &
Collaborative Care
Management Networks
(CCMNs)**

Three-stage evolution of HIT



New Business
Ecosystem
(Value Network)



Emergence of Collaborative Care Management Networks (CCMNs)

- **Many embryonic examples of CCMNs**
 - Accountable Care Organizations (Medicare Shared Savings model, expect others)
 - Leading edge integrated delivery systems: Kaiser, Geisinger, Group Health, Intermountain
 - Institute for Clinical Systems Improvement , Minnesota
 - **State Chronic Care Initiatives:** Iowa, Pennsylvania, Vermont, Washington, Rhode Island, Colorado, others
 - Improving Performance in Practice initiatives
 - Patient Centered Medical Home (PCMH) initiatives?
 - PCMH physicians are nodes on the network
 - A PCMH is not the network
 - PCMH “neighborhood” could be a CCMN

Collaborative Care Management Networks (cont.)

- **Characteristics of CCMN construct**
 - **Regional focus**
 - **Common clinical guidelines/shared care processes**
 - **Aligned financial incentives and shared accountability across providers**
 - **Governance varies**
 - **Multi-payer participation**
 - **Common IT infrastructure enabling information exchange and shared workflow (highly desirable today, essential in the future)**
 - **Proprietary?**
 - **Open?**
 - **Trust and shared responsibility**
 - **Contrast**
 - **Care management programs enabled by CCMNs (readmissions, medication management, DM, etc.**
 - **CCMN is the dog, programs are the tail**



II. The Central Debate in Tech Circles: Walled Gardens vs. The Open Web

**A Case Study in Disruptive Innovation:
Apple iPhone &
Google/Android
*2 Success Stories***



Phone Fight!

It's Apple vs. Google in the battle over the future of computing.

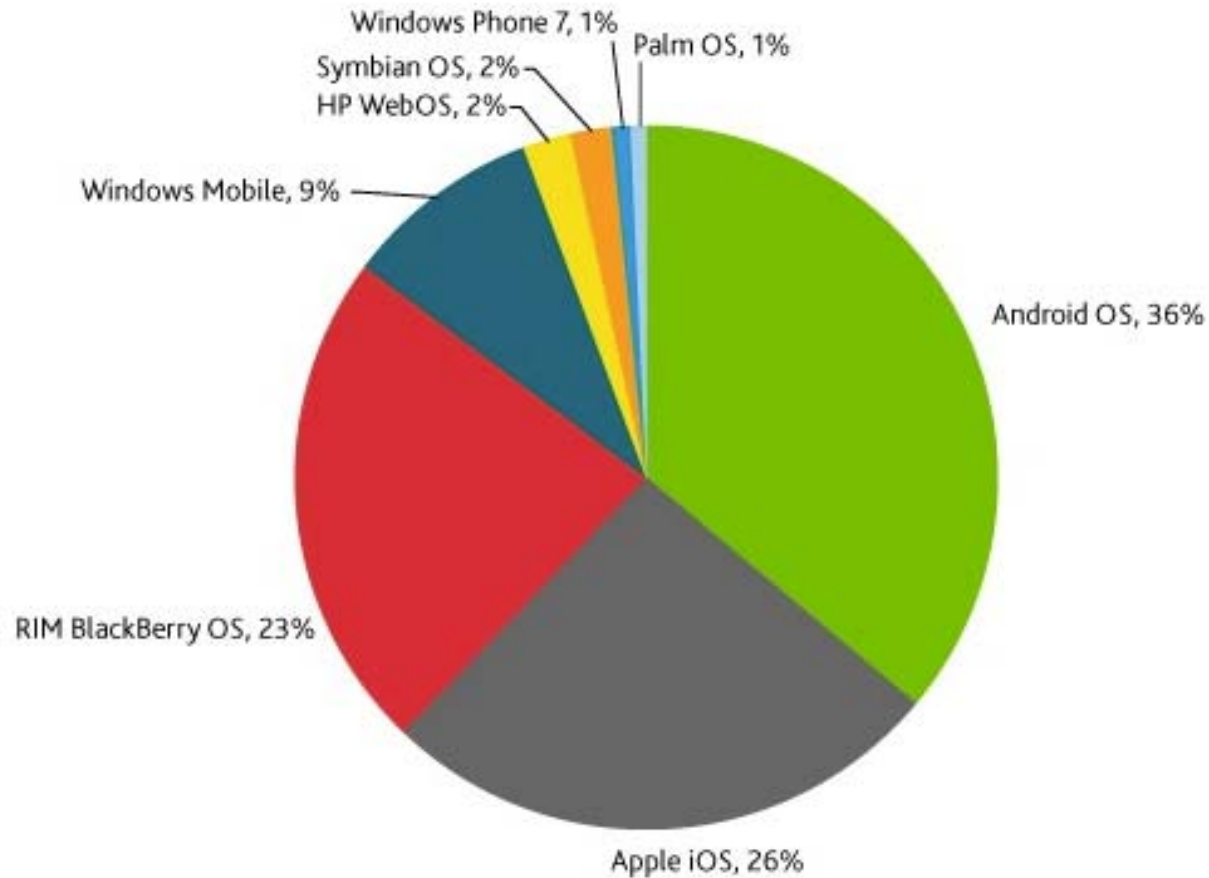


by [Daniel Lyons \(/authors/daniel-lyons.html\)](http://authors/daniel-lyons.html) June 12, 2010

Apple iOS and Google Android From 0% to 62% Market Share in 4 Years

Smartphone Share

Feb - Apr 2011, Nielsen Mobile Insights, National



Source: Nielsen

nielsen

Walled Garden



What's a Walled Garden (WG)?

- **Controls users' access to content and services**
- **Restricts the user's navigation within particular areas (applications)**
- **Not all alike: differing heights and levels of permeability to the walls.**

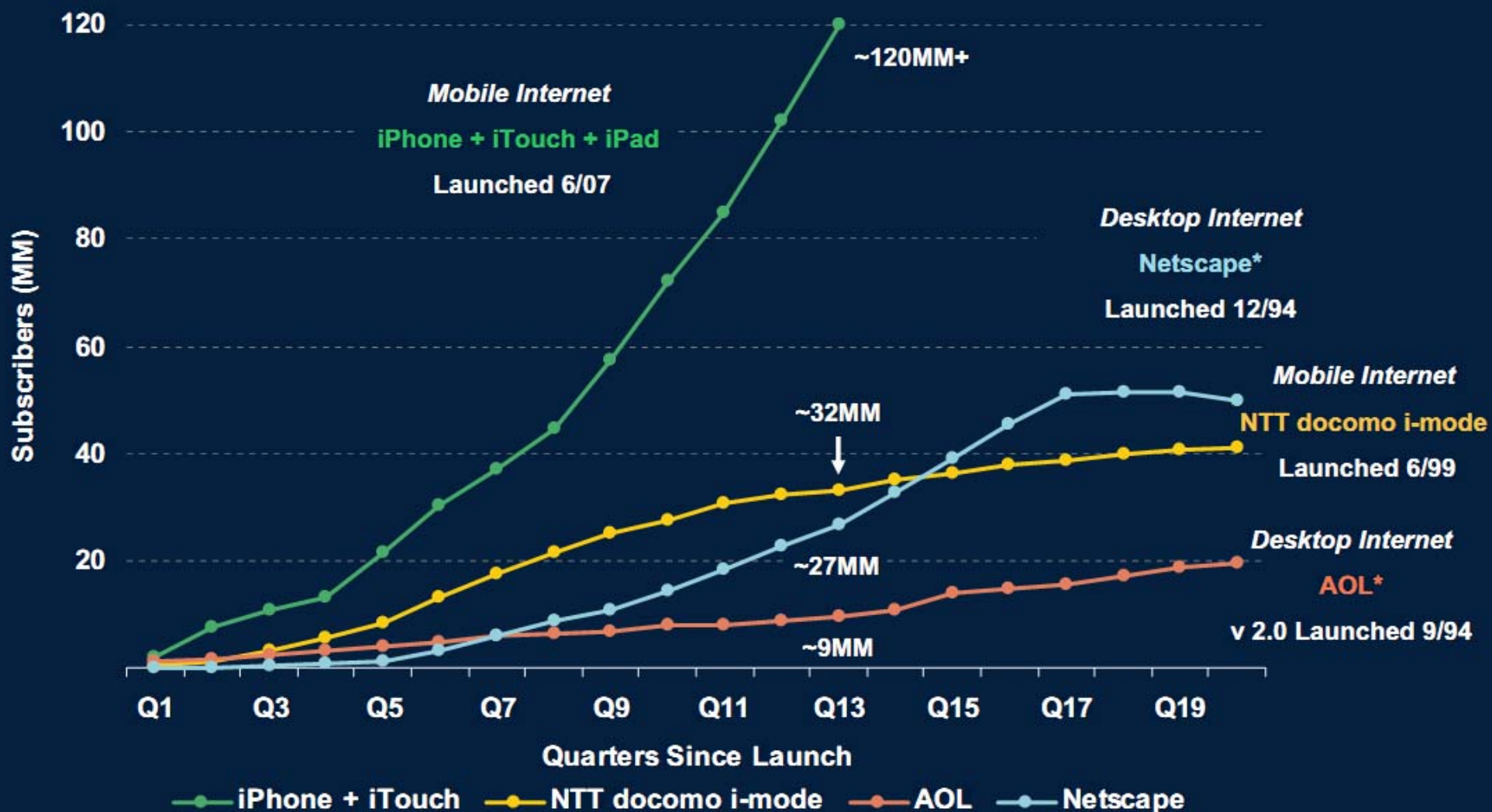
Walled Garden (WG): Apple iPhone

- **Chronology**
 - **March 7, 2007: Apple introduces iPhone “product”**
 - **March 2, 2008: Apple opens API to developers**
 - **March 6, 2008:**
 - **100,000 downloads of SDK**
 - **Kleiner, Perkins announces \$100 M investment fund**
 - **November 4, 2009: 100 K apps**
 - **April 2011: 398 K apps**

-
- **Business model**
 - **Open API**
 - **Virtually every other aspect closed**
 - **Integrated hardware/software platform**
 - **Non-swappable applications**
 - **Exclusive distribution of apps.**
 - **Restriction on carrier choice**
 - **Restrictions and controls on developers**
 - **Multiple revenue sources -- HW \$\$, developer \$\$, app store**
 - **Highly controlled user experience**

Apple iPhone + iTouch + iPad Ramp – The Likes of Which We Haven't Seen Before

iPhone + iTouch vs. NTT docomo i-mode vs. AOL vs. Netscape Users
First 20 Quarters Since Launch



Morgan Stanley

Note: *AOL subscribers data not available before CQ3:94; Netscape users limited to US only. Morgan Stanley Research estimates ~65MM+ netbooks have shipped in first 11 quarters since launch (10/07). Source: Company Reports, Morgan Stanley Research. Data as of CQ3:10.

Google Android Operating System-- Open Source SW Platform

- **Open Handset Alliance: 30+ companies**
 - Google Android open source SW
 - Multiple handset developers bring hardware
- **Open API**
- **20+ smartphones on the market use Android OS**
- **176 K Android apps**
- **Google maintains “control points”, e.g., see**
<http://www.visionmobile.com/blog/2010/04/is-android-evil/>



Google can give away Android because...

“...we make money, and lots of it, it turns out, from advertising on mobile phones.”

Eric Schmidt, CEO, Google

Result: A Vibrant, Competitive Marketplace



Why Is Android Taking Over Smartphone and Mobile Device Market

July 3, 2010 by [The Robot Droid](#)
Filed under [Editorials](#)

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electronista news

electronista
gadgets for geeks

More town hall: next iPhone is an A+ update, beats Android

BARRON'S

TECHNOLOGY TRADER | SATURDAY, JULY 10, 2010

How a Droid Could Eat Apple's Lunch

By MARK VEVERKA

Apple's iPhone reigns supreme, but a veteran telecom analyst argues that the momentum belongs to Google's Android system.



Troy Brumley

As A Programmer

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COMPUTERWORLD



June 8, 2009 - 2:31 P.M.

Why Android will not beat the iPhone

MobileCrunch

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The real reason Android is outselling the iPhone: Android is everywhere

by [John Biggs](#) on May 11, 2010

61 Comments [72 retweet](#)

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Steve Jobs: "Not a chance" for Google to Leapfrog Apple

by [Quentyn Kennemer](#) on May 24th, 2010





III. Health IT Evolution:

- 1) Closed/Monoliths to**
- 2) Walled Gardens to**
- 3) The Open Web**

Evolution of EMR/EHR Technology

1) Yesterday:
Closed/Monolithic



WANG

2) Today: Walled Garden EHR
Platforms



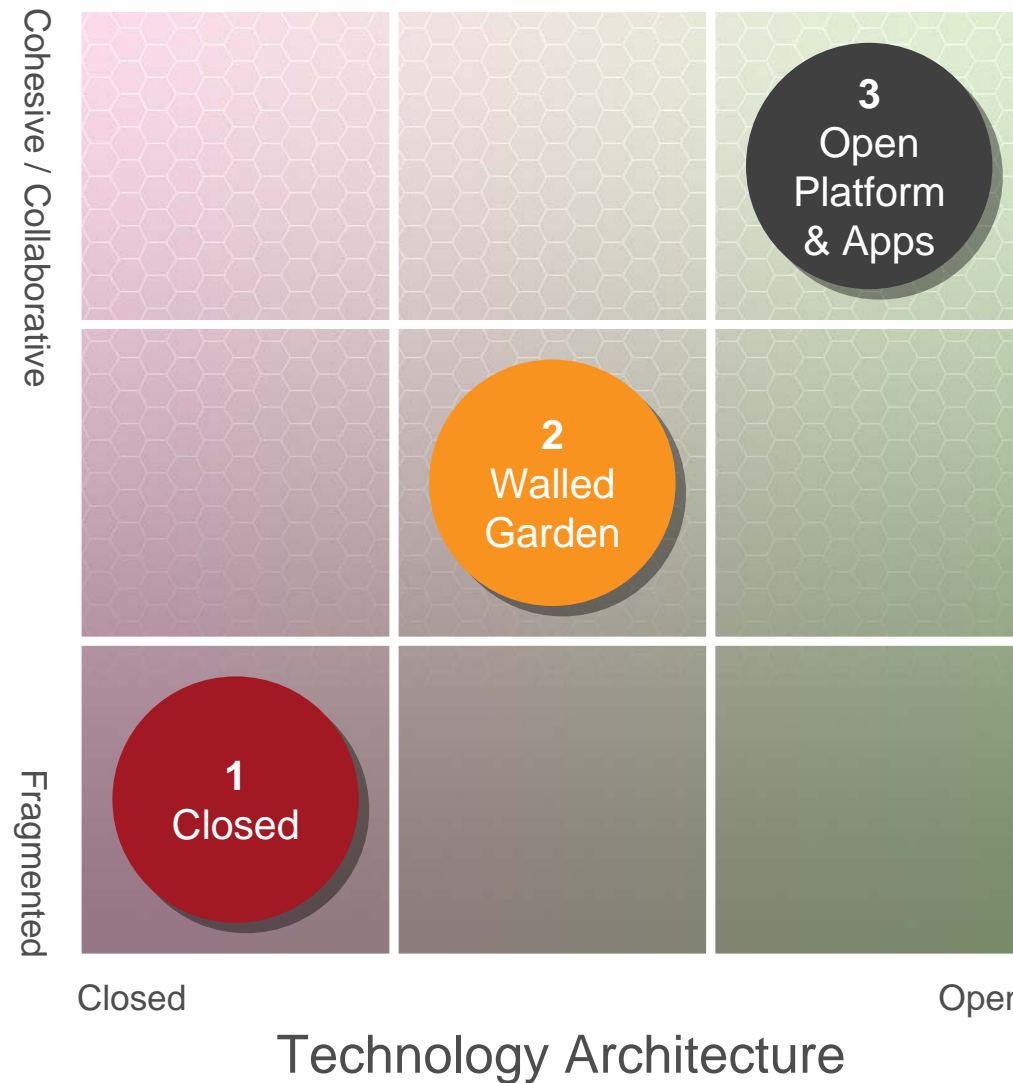
3) Tomorrow: Open EHR
Technology Platform(s) with
Plug-and-Play Modular
Apps



Three-stage evolution of HIT



New Business
Ecosystem
(Value Network)



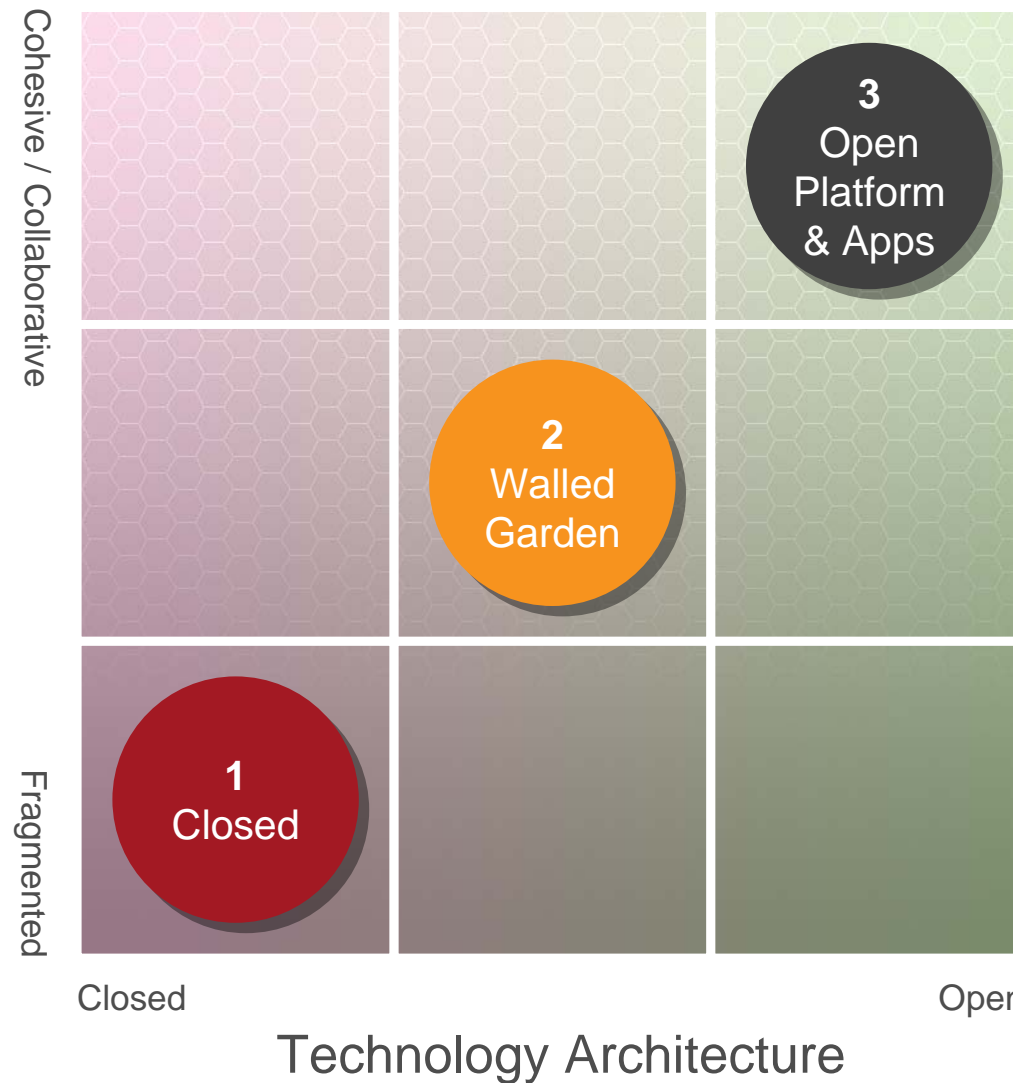
1) Yesterday's HIT: Closed/Monolithic

- **Proprietary, non-interoperable technology**
- **Low volume, high margin sales**
- **Customers can have high needs for installation support and customization**
- **High switching costs and customer lock-in.**

Three-stage evolution of HIT



New Business
Ecosystem
(Value Network)



2) Today: “Walled Garden” EHR Platforms



- 1) **AMA/Dell** [AMA to team with Dell for EHR info platform](#) 3/10
- 2) **AT&T** [AT&T Expands Healthcare Community Online to Improve Patient Care](#) 2/10
- 3) **Axlotl** [Axlotl Corp Showcases New SOA Technology at HIMSS 2010](#) 3/10
- 4) **Covisint** [Covisint Jumps onto PaaS Bandwagon](#) 11/09
- 5) **Eclipsys** [Eclipsys Introduces Open Platform to Transform Health IT and Drive Electronic Health Record Adoption](#) 3/10
- 6) **GE** [GE IT CEO touts debut of next-gen clinical knowledge platform, eHealth Platform](#) 3/10
- 7) **Henry Schein** [Henry Schein Announces the Launch of Innovative Henry Schein ConnectHealth \(TM\) Collaborative](#) 3/10
- 8) **Medecision** [MEDecision Webinar Will Introduce New InFrame Collaborative Health Information Service Technology](#) 3/10
- 9) **Medicity** [Medicity Opens Its Health Information Exchange Platform to Third-party Application Development](#) 11/09
- 10) **Microsoft/Eclipsys** [Microsoft and Eclipsys Announce Health Care IT Alliance](#) 2/10
- 11) **Navinet** [NaviNet Offers End-to-End Healthcare Communications Platform](#) 2/10
- 12) **Quest Diagnostics** [Quest Diagnostics Unveils Care360 EHR](#) 3/10
- 13) **Verizon** [Verizon Launches IT Platform to Help Accelerate Adoption of Electronic Health Care Records](#) 3/10

3) Tomorrow: Drivers Toward an Open Health IT Technology Platform

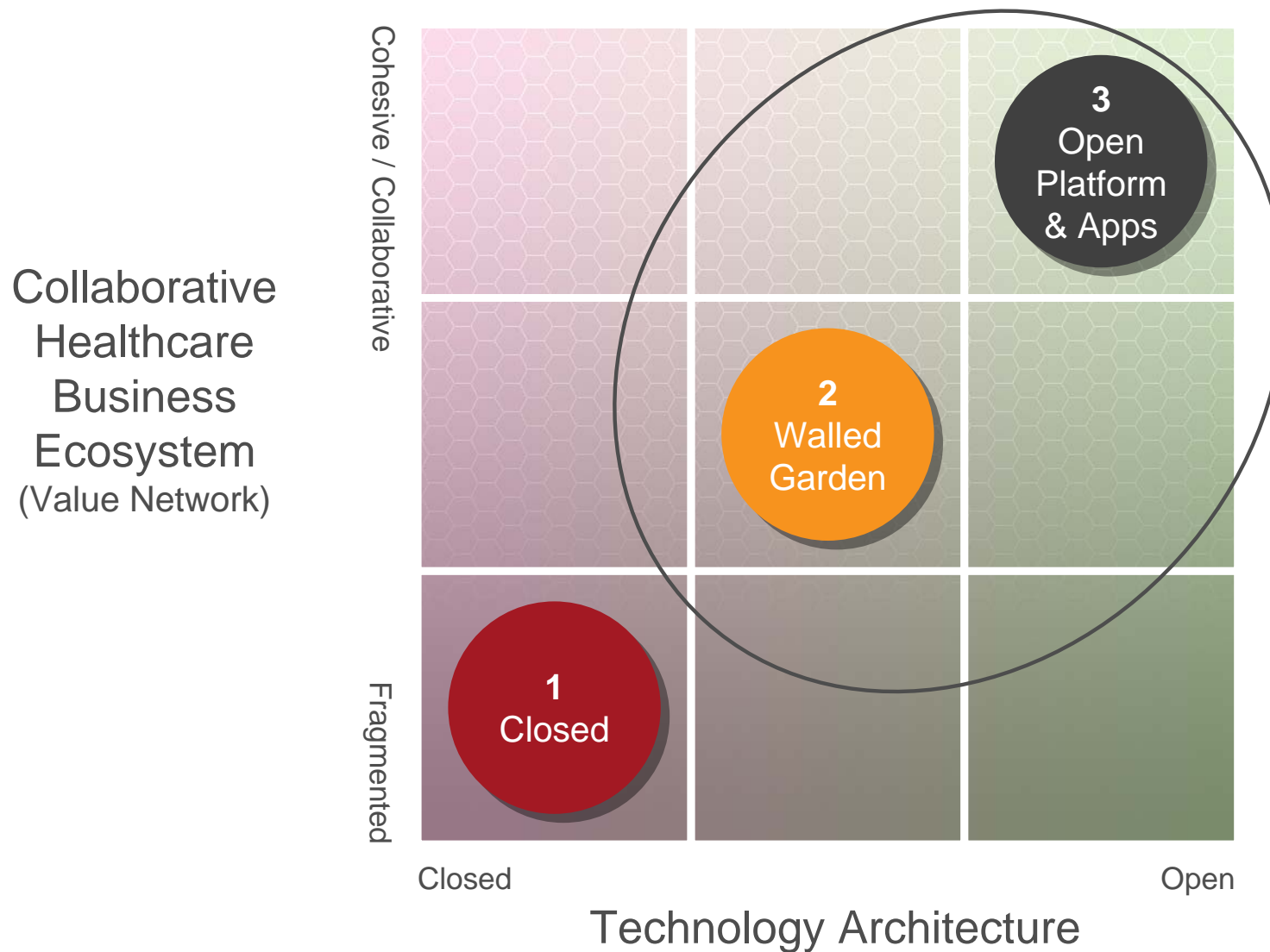
- The Office of the National Coordinator for Health IT (ONC).
 - ...we believe that it will be common in the near future for Certified EHR Technology to be assembled from several replaceable and swappable EHR Modules. Health & Human Services, Interim Final Rule on Standards, December 2009 p.41

-
- **PCAST HIT Report (12/10)**
 - **Google Health and Microsoft HealthVault**
 - **The Clinical Groupware Collaborative**
 - **Free or freemium EHR offerings such as Practice Fusion**
 - **Free and open source software (FOSS) e.g., Mirth, VISTA**
 - **openEHR**
 - **NHIN-Direct**
 - **ONC SHARP Grant for Childrens Hospital Boston and Harvard Medical School**
 - **Application vendors**
 - **WG platforms (...migration toward openness)**

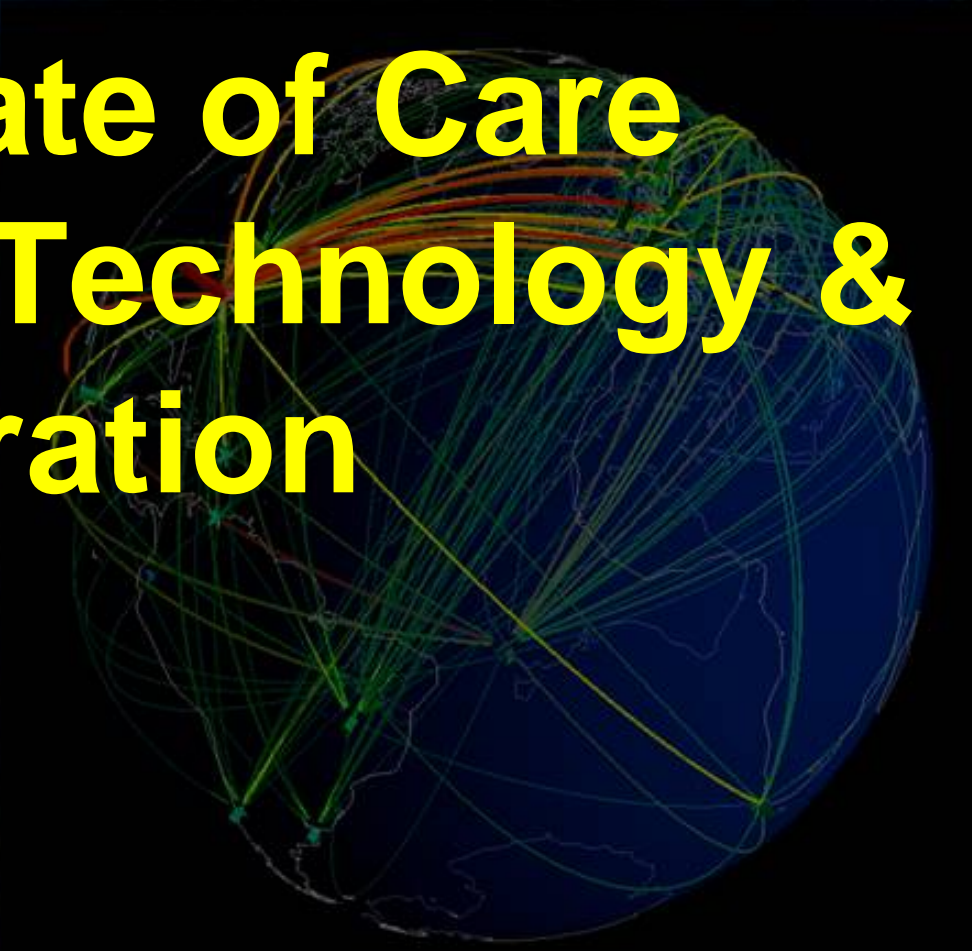
Next Stage of HIT Evolution: Competition Between Walled Garden and Open Platforms



Clinical Groupware Collaborative



IV. The State of Care Management Technology & Integration

A globe is shown in the background, partially obscured by a network of green and red lines that represent global connectivity and technology integration. The lines are dense and crisscross the globe, with some lines being thicker and more prominent than others. The globe itself is a dark blue color with some lighter blue lines indicating latitude and longitude.



2010 Health Information Technology Survey

How Technology is Changing the Practice of Care Management

September 2010



Survey Overview: 2008 & 2010

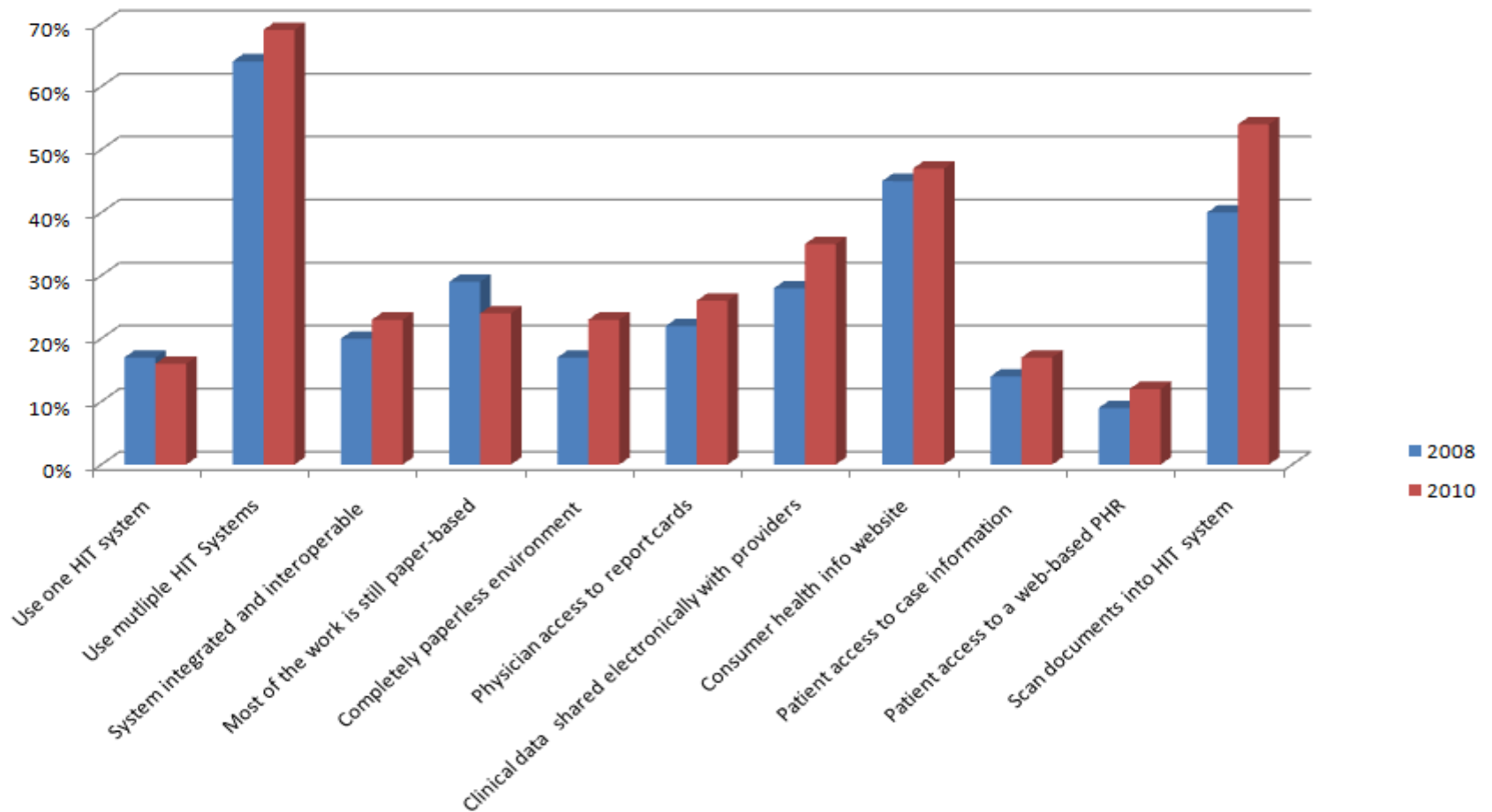
- Purpose
 - Primary focus was to look at health information technology trends in the care management field
- Survey Sponsors
 - Joint survey co-sponsored by CMSA, TCS and ABQAURP
 - Questions developed by representatives from all 3 organizations
- Distribution
 - Survey sent to approximately 15,000 health care professionals – through CMSA, TCS and ABQAURP distribution channels
 - Response rate approximately 3.5%
 - Both surveys in 2008 and 2010 were open for six weeks each Spring
- Results: white Paper is available for download at www.tcshealthcare.com or www.cmsa.org

* American Board of Quality Assurance and Utilization Review Physicians (ABQAURP), Case Management Society of America (CMSA), and TCS Healthcare Technologies (TCS)

Integration Question Series

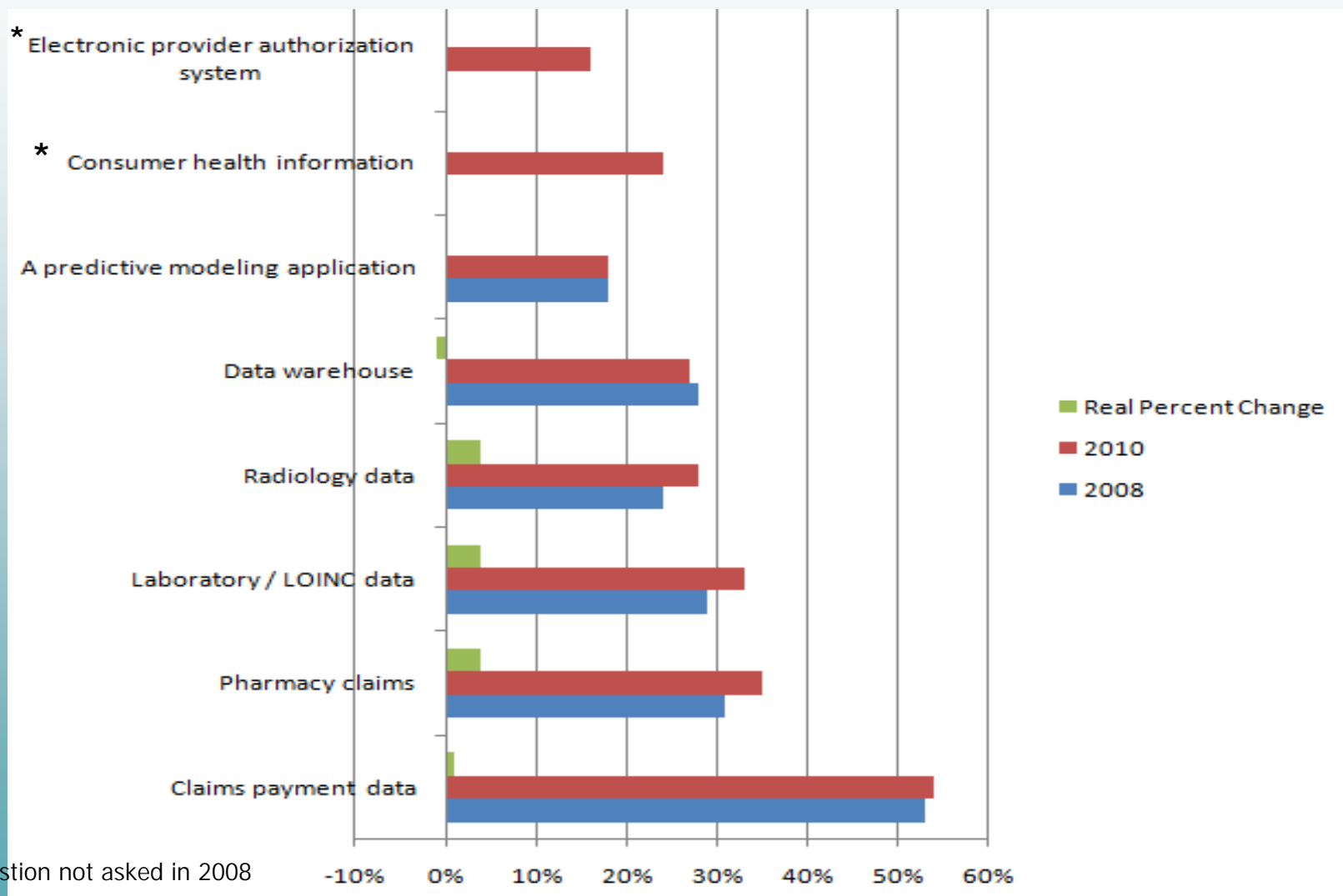
Two Year Comparison

Collaborative



Your clinical practice or medical management data are electronically linked to which of the following items?

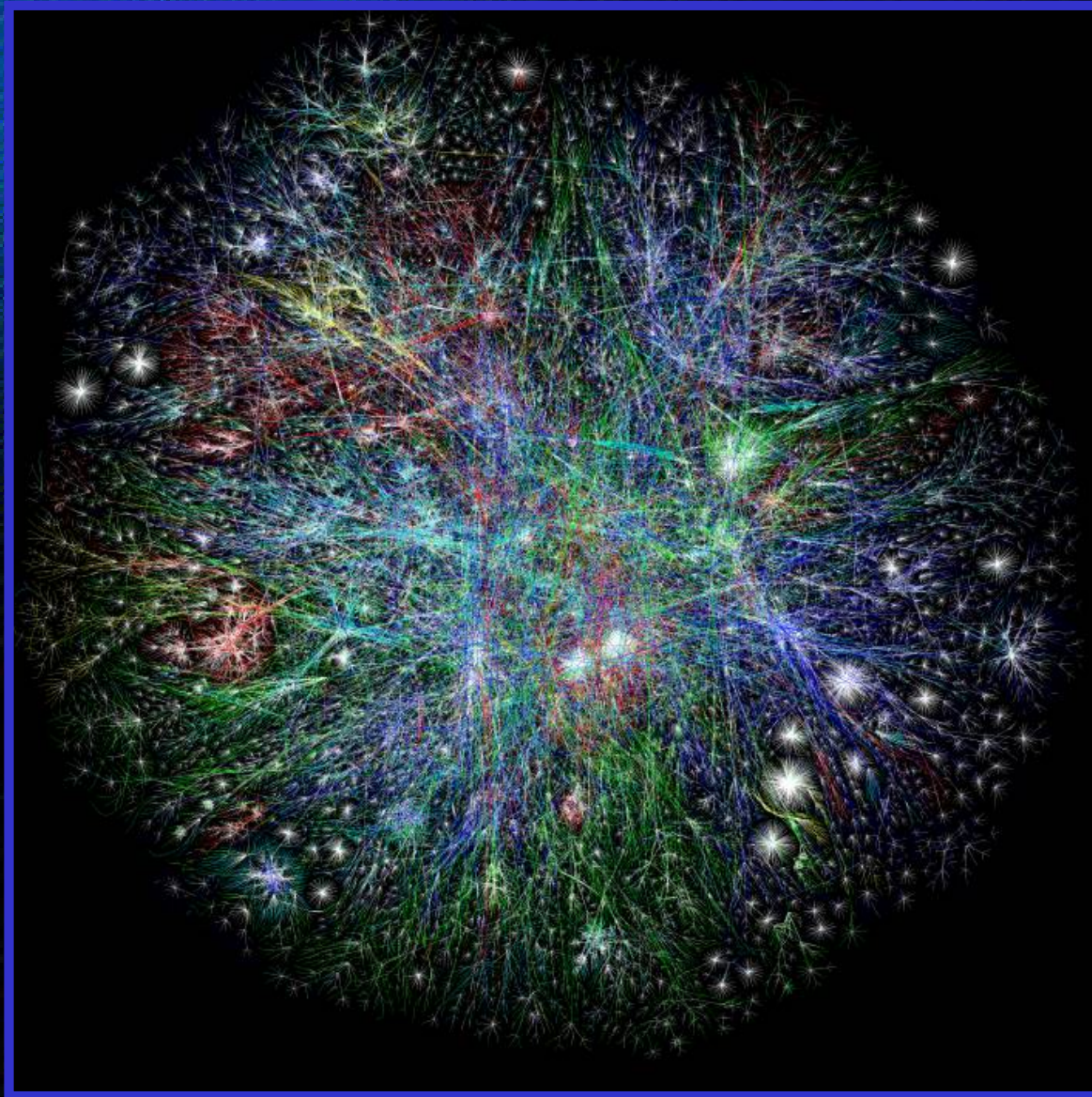
(Respondents could select more than one option)



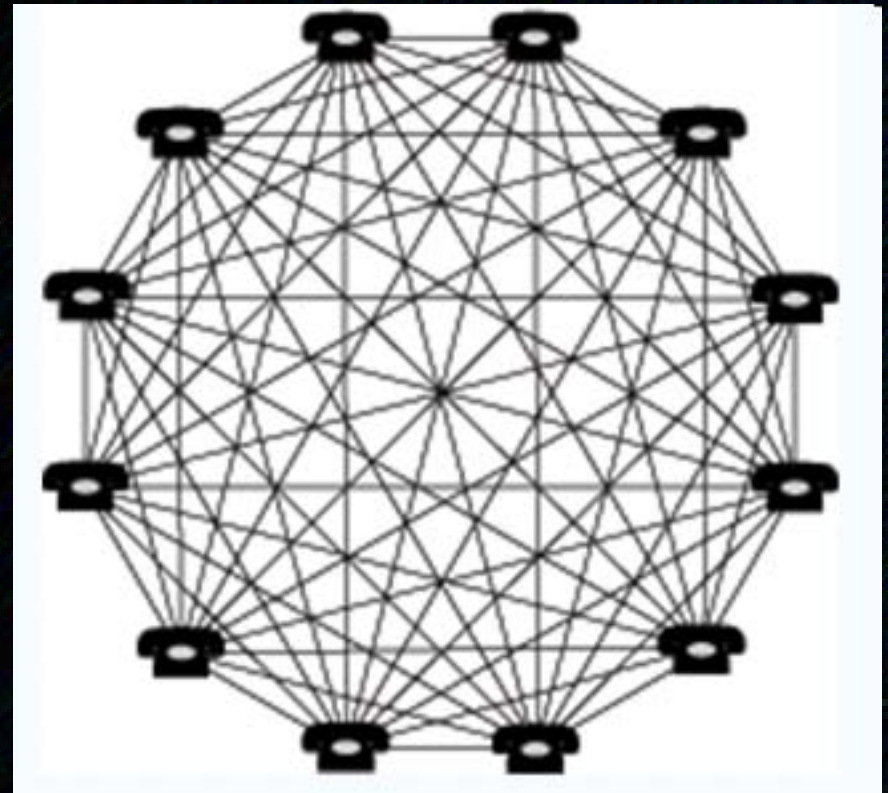
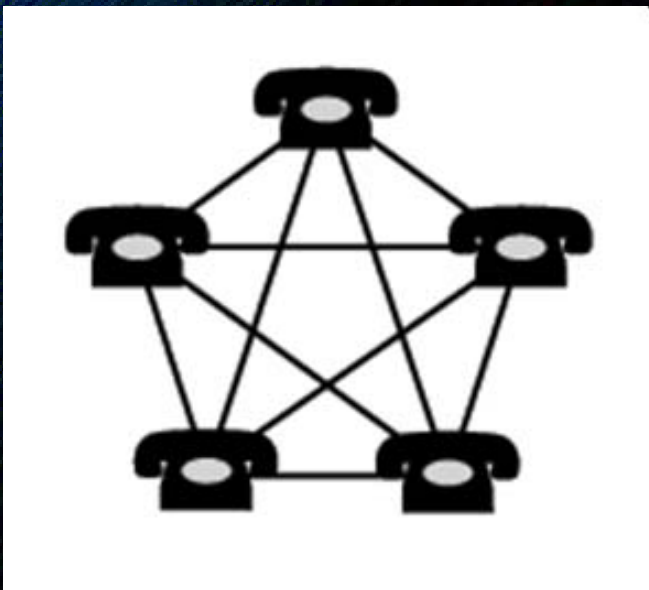
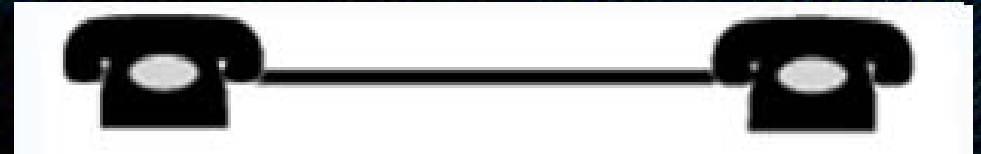
V. Clinical, IT, Business Strategy: From Company Centric to Network Centric



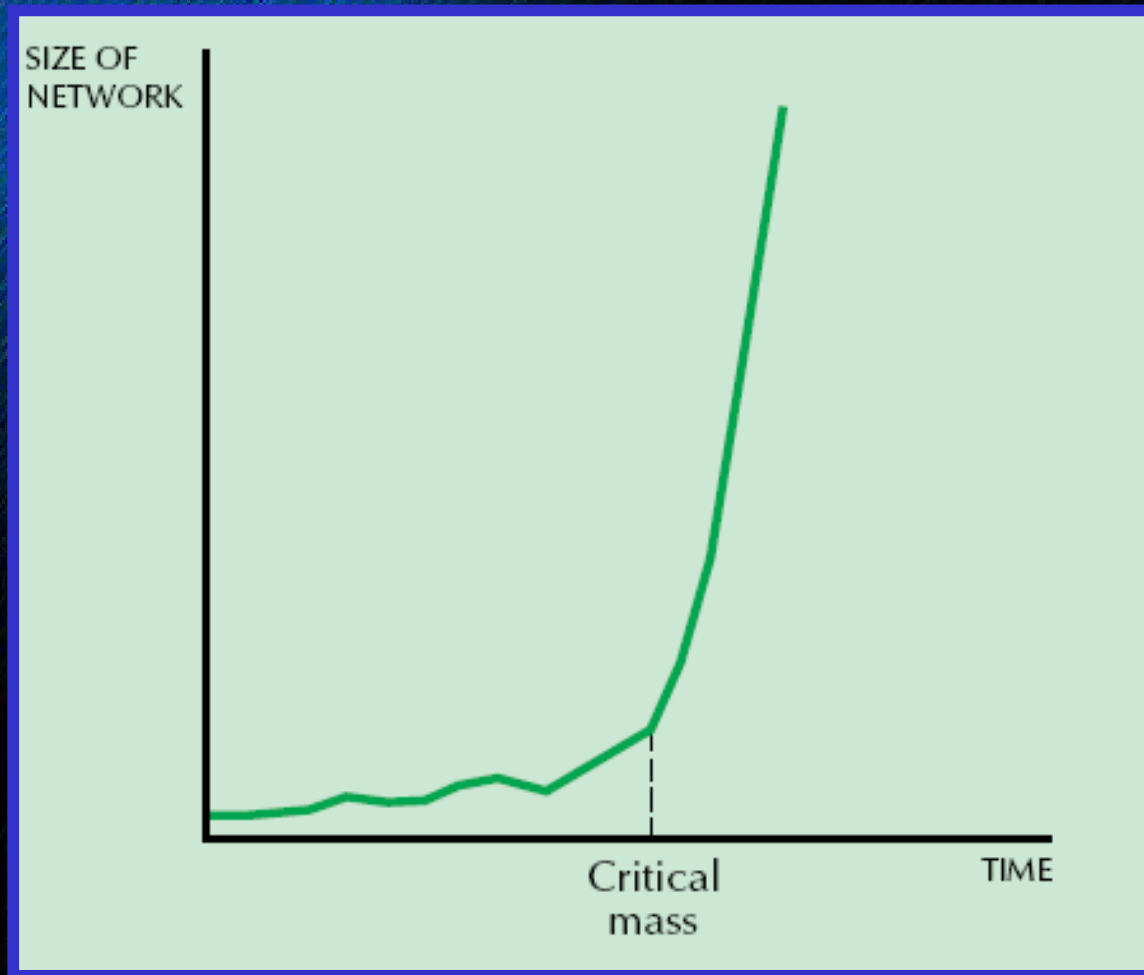
Network Science



Network Effects -- Value from Increasing Number of Network Users



Network Effects (Tipping Point)



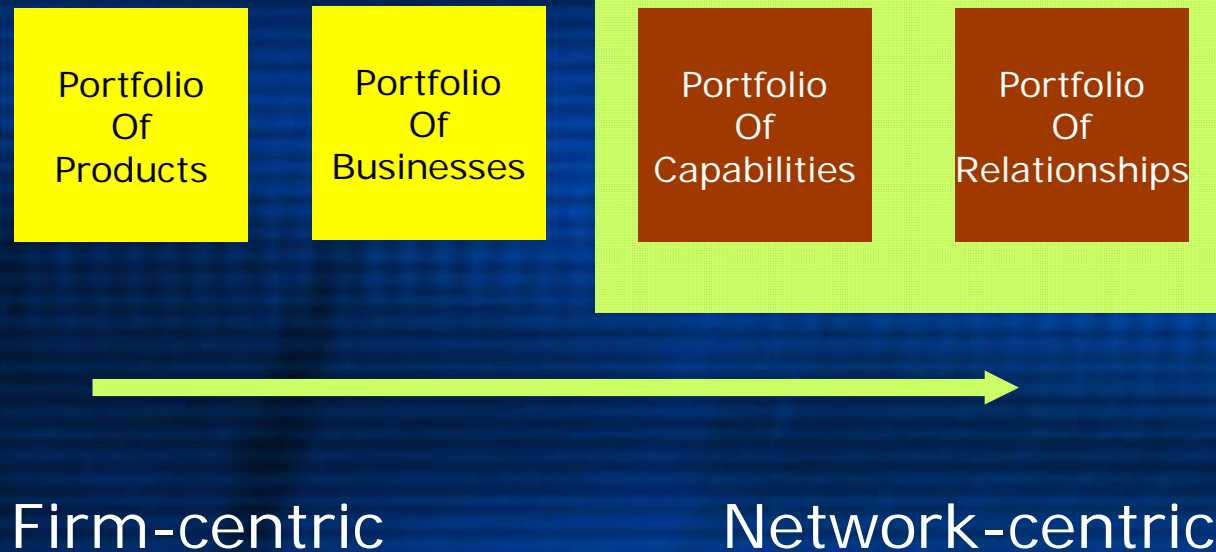
Source: Shapiro, C. Varian, H. Network Effects 1998

Are Physicians Amenable to Multihoming on EHR Platforms?

- **Single homing -- tendency for customers to prefer single platform**
 - Cell phone
 - Internet service provider (ISP)
 - Computer operating system (OS)
- **Multihoming – tendency for customers to accept multiple platforms**
 - Credit cards
 - Securities brokerage
 - Newspaper


Strategy: Shifting Lens From Company Centric to Network-Centric

Strategy: Shifting lens



Source: Venkatraman, N. *Winning in a Network Era: Opportunities & Challenges*, 2006

VI. Emergence and Rise of Collaborative Care Management Networks (CCMNs)



“We need to make care linkages a core competency of American health care.”

George Halvorson, Chairman and CEO, Kaiser Foundation Health Plan, Kaiser Foundation Hospitals

Emergence of Collaborative Care Management Networks (CCMNs)

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Accountable Care Organizations

Transitioning to Accountable Care



INCREMENTAL PAYMENT REFORMS
TO SUPPORT HIGHER QUALITY,
MORE AFFORDABLE HEALTH CARE



Harold D. Miller

Minnesota

ICSI Institute for Clinical
Systems Improvement

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[HEALTH CARE REDESIGN](#)

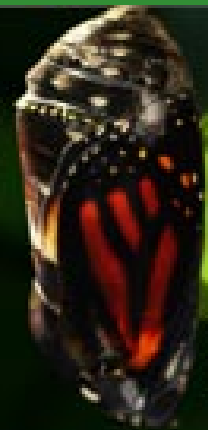
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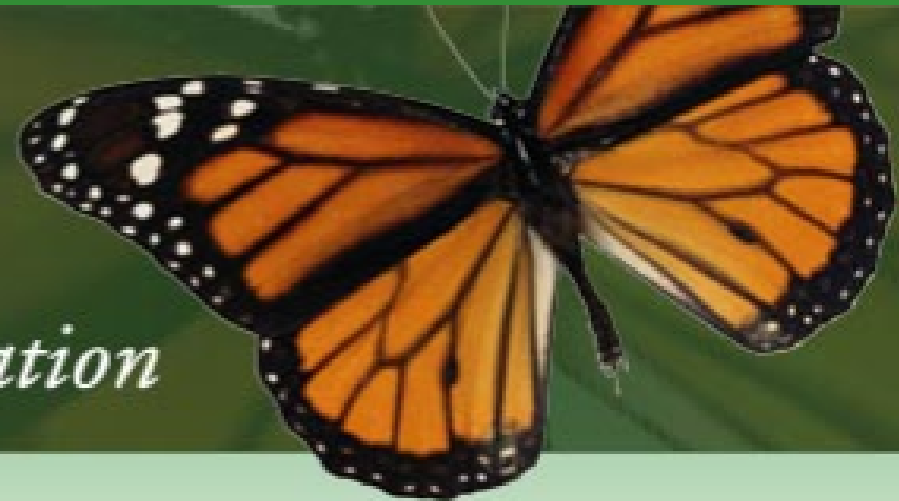
[PATIENT CARE](#)

[ABOUT ICSI](#)

[C](#)



*Transforming
Health Care
Through Collaboration*



ICSI is a non-profit organization that brings together diverse groups to transform the health care system so that it delivers patient-centered and value-driven care. It is comprised of 60 medical groups and sponsored by six Minnesota and Wisconsin health plans.

Medicare Multi-Payer Advanced Primary Care Practice (MAPCP) Demonstration

The absence of Medicare at a multi-payer table...

- Limits ability to spread costs for practice transformation
- Limits payer participation
- Limits provider interest



NATIONAL ACADEMY
for STATE HEALTH POLICY

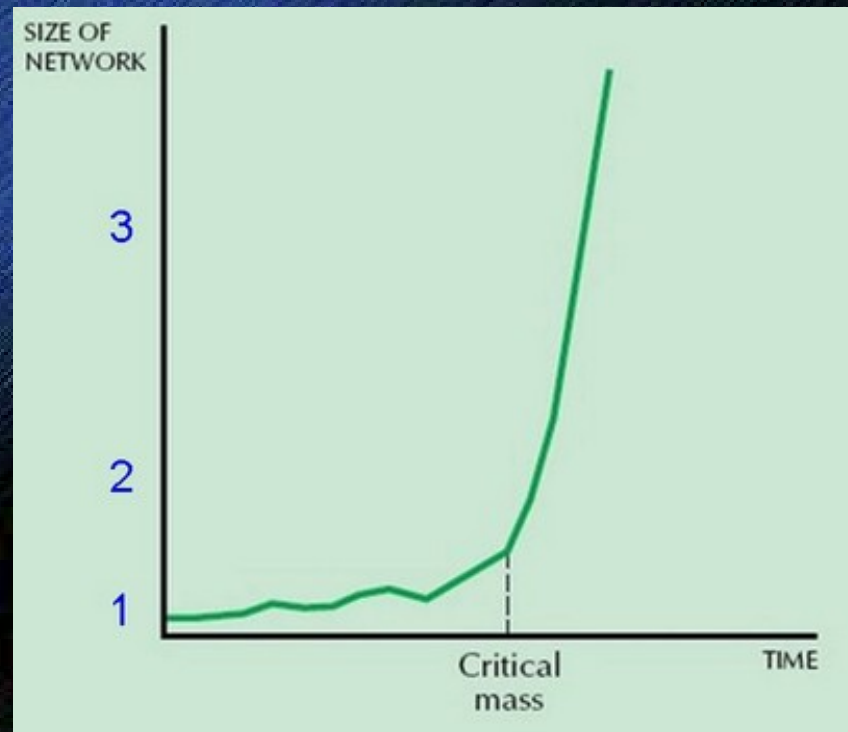
Will Medicare Join State Multi-Payer Medical Home Initiatives?

A Conversation With States Regarding Medicare's
Proposed Advanced Primary Care Demonstration

December 1, 2009, 2:30 PM Eastern

6

Networks Effects in Care Management



- 1) One payer with 10% regional market share tries to dictate adoption of proprietary evidence based guidelines (e.g., for diabetes care).
- 2) Multiple payers with 30% regional market share (but not including Medicare) collaboratively influence development and implementation of evidence based guidelines.
- 3) Multiple payers with 75% market share (including Medicare) collaborate in creating public-utility like infrastructure for care and care management

PAYMENT REFORM ACTIVITY

**Innovative Alternative Delivery and Payment Models
Private Sector Initiatives**



A grey shading indicates Medicare participation
*In Vermont, costs are subsidized by the state under the ACO initiative

March, 2011

Kaiser/Group Health Cooperative PHRs

- **Examine current PHR adoption**
 - U.S. average: 7%
 - **Best Practice**
 - Kaiser: 35%+
 - Group Health Cooperative (GHC): 60%
- **Why?**

Features/Functionality of Kaiser & GHC PHRSs (as of mid 2008)

	<u>GHC</u>	<u>Kaiser</u>
PHR	X	X
EHR integration (patient view)	X	X
Secure patient/physician messaging	X	X
Prescription renewal	X	X
Lab/test results	X	X
Request for Dr. appointment	X	X
Integrated consumer health content	X	X
Health Risk Assessment	X	X
Caregiver/parental access	X	X
Review of insurance benefits	X	x
Appointment scheduling	x	X
Medication management	X	
Behavior change programs		X
After visit summary	x	
View x-ray, MRI, CT	x	

Health Care Reform Legislation

- **Pilots**

- Sec. 3023. National pilot program on payment bundling
- Sec. 4202. Healthy aging, living well; evaluation of community-based prevention and wellness programs for Medicare beneficiaries
- Sec. 4206. Demonstration project concerning individualized wellness plan
- Sec. 10326. Pilot testing pay-for-performance programs for certain Medicare providers

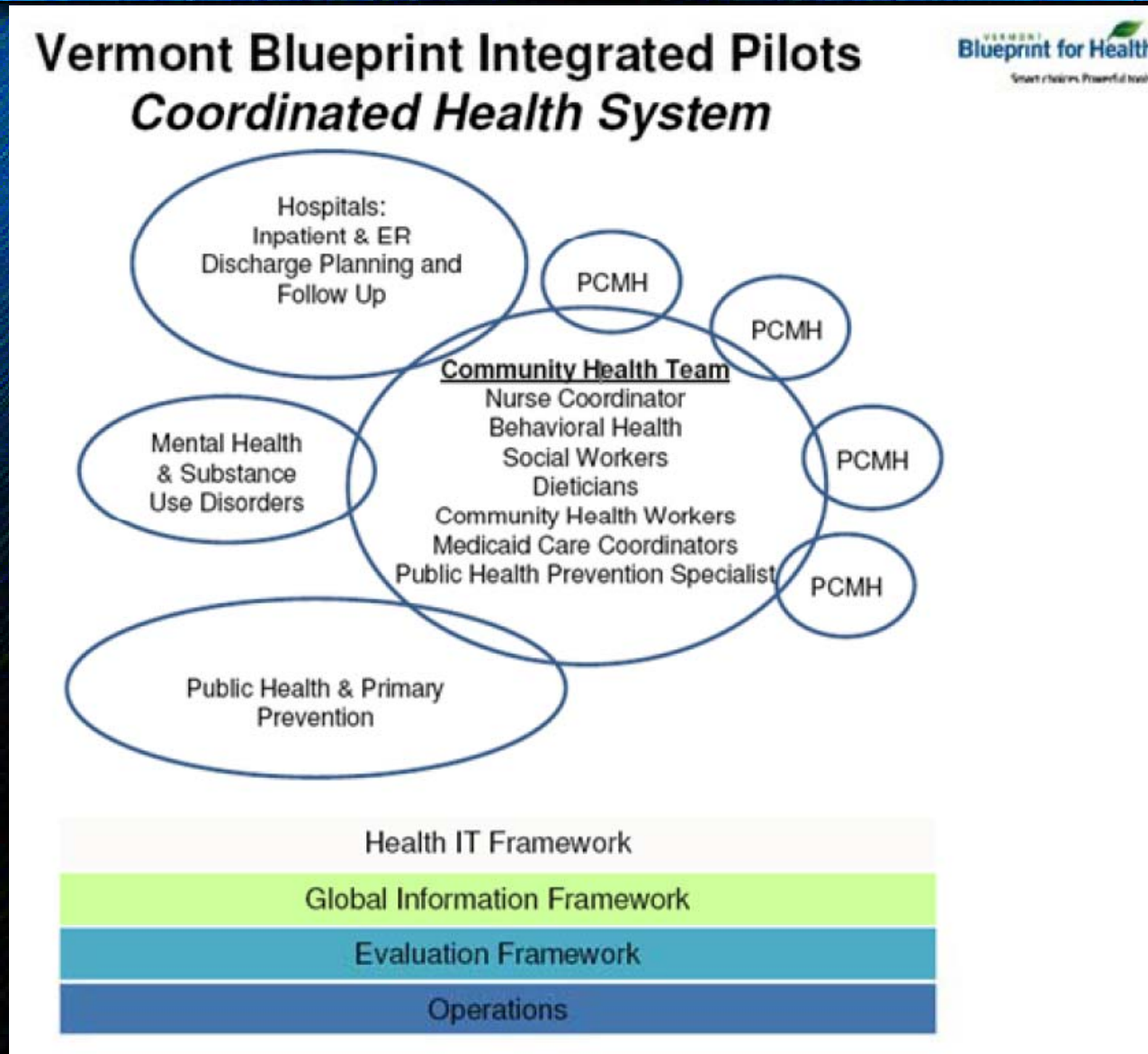
- **Demonstrations**

- Sec. 2704. Demonstration project to evaluate integrated care around a hospitalization
- Sec. 2705. Medicaid global payment system demonstration project
- Sec. 2706. Pediatric Accountable Care Organization demonstration project
- Sec. 3024. Independence at home demonstration program
- Sec. 3027. Extension of gainsharing demonstration
- Sec. 2601. 5-year period for demonstration projects. (for dual eligible beneficiaries)
- Sec. 3140. Medicare hospice concurrent care demonstration program.
- Sec. 3510. Patient navigator program.
- Sec. 4206. Demonstration project concerning individualized wellness plan.

• **Center for Medicare and Medicaid Innovation (pilots)**

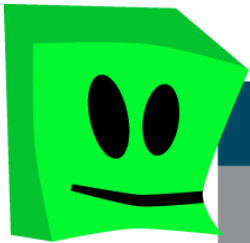
- (i) Promoting broad payment and practice reform in primary care, including patient-centered medical home models for high-need individuals
- (ii) Contracting directly with groups of providers of services and suppliers
- (iii) Utilizing geriatric assessments and comprehensive care plans to coordinate the care of individuals with multiple chronic conditions
- (iv) Promote care coordination between providers of services and suppliers that transition health care providers away from fee-for-service based reimbursement and toward salary-based payment.
- (v) Supporting care coordination for chronically ill individuals at high risk of hospitalization through a health information technology-enabled provider network that includes care coordinators, a chronic disease registry, and home tele-health technology.
- (vi) Varying payment to physicians who order advanced diagnostic imaging services
- (vii) Utilizing medication therapy management services
- (viii) Establishing community-based health teams to support small-practice medical homes
- (ix) Assisting individuals in making informed health care choices by paying providers of services and suppliers for using patient decision-support tools
- (x) Allowing States to test and evaluate fully integrating care for dual eligible individuals
- (xi) Allowing States to test and evaluate systems of all-payer payment reform
- (xii) Aligning nationally recognized, evidence based guidelines of cancer care with payment incentives
- (xiii) Improving post-acute care through continuing care hospitals that offer inpatient rehabilitation, long-term care hospitals, and home health or skilled nursing care during an inpatient stay and the 30 days immediately following discharge
- (xiv) Funding home health providers who offer chronic care management services to individuals
- (xv) a collaborative of high-quality, low-cost health care institutions that is responsible for— best practices and proven care methods
- (xvi) Facilitate inpatient care through the use of electronic monitoring by specialists based at integrated health systems
- (xvii) Promoting efficiencies and access to outpatient services through models that do not require a physician or other health professional to refer the service
- (xviii) Establishing comprehensive payments to Healthcare Innovation Zones, consisting of groups of providers

VT Coordinated Health System Diagram





The Value of the Clinical Groupware Collaborative



Market Development	Advocacy	Services
<p>Collaboration to discover new technologies and business opportunities</p> <p>Thought leadership around clinical programs and initiatives</p> <p>Bring members together through sponsorship of industry conferences and events</p>	<p>A strong voice inside the beltway around HIT</p> <p>Vigilance with emerging certification standards and policies</p> <p>A seat at the table with state and federal initiatives</p>	<p><i>Pathways Program</i>— Aggregating single solutions into product suites</p> <p><i>Applications and Platforms Program</i>— Connecting platform vendors with specialized application vendors</p>



VII. Summary



“...the healing professions are in the midst of a major sea-change, a once-in-a-century shift: We’re moving from ‘medicine practiced as individual heroism’ to ‘medicine as a team sport’”

Brent James MD, Intermountain Healthcare

Brief Bio – Vince Kuraitis

- Vince Kuraitis JD, MBA is Principal and founder of Better Health Technologies, LLC (<http://e-CareManagement.com>). BHT consults to companies in developing strategy, partnerships and business models for clinical care and care management platforms/applications delivered in homes, workplaces, and communities.
- BHT's clients -- both established organizations and early-stage companies -- include: Intel Digital Health Group, Philips Electronics, Amedisys, Joslin Diabetes Center, Ascension Health System, Samsung Electronics, Siemens Medical Solutions, Medtronic, Varian Medical Systems, Disease Management Association of America, and many others.
- Vince brings 25 years health care experience in multiple roles: President, VP Corporate Development, VP operations, management consultant, and marketing executive. His consulting and work projects span 100+ different health care organizations, including hospitals, physician groups, medical devices, pharma, health plans, disease management, e-Health, IT, and others.
- Vince speaks frequently at industry conferences and corporate events. He has been the opening keynote speaker at the Healthcare Unbound conferences between 2004 and 2010 and has spoken at about 35 conferences in the past 3 years. He has experience leading strategic planning retreats for Boards and physicians.
- Vince's experience includes: Principal, Better Health Technologies; President, Health Choice (medical call center), VP Corporate Development and VP Specialty Operations, Saint Alphonsus Regional Medical Center; Regional Director of Marketing, National Medical Enterprises (hospital chain with 100 facilities); Senior Consultant, Amherst Associates, national health care management consulting company.
- His education includes MBA and JD degrees from UCLA, and a BS degree in business administration from USC.
- Contact: vincek@bhtinfo.com, 208-395-1197

BHT Clients

Pre-IPO Companies

RMD Networks
HealthPost
Cardiobeat
EZWeb
Sensitron
Life Navigator
Medical Peace
Stress Less
DiabetesManager.com
CogniMed
Caresoft
Benchmark Oncology
SOS Wireless
Click4Care
eCare Technologies
The Healan Group
Fitsense
Elite Care Technologies

Established organizations

Intel Digital Health Group
Samsung Electronics, South Korea
-- Global Research Group
-- Samsung Advanced Institute of Technology
-- Digital Solution Center
Amedisys
Ascension Health System
Midmark
Medtronic
-- Neurological Disease Management
-- Cardiac Rhythm Patient Management
Siemens Medical Solutions
Philips Electronics
Joslin Diabetes Center
GSK
Disease Management Association of America
PCS Health Systems
Varian Medical Systems
VRI
Washoe Health System
S2 Systems
CorpHealth
Physician IPA
Centocor
Clinical Groupware Collaborative

A Central Debate in Tech Circles Walled Gardens vs. The Open Web

WIRED

**The
Web is
dead.**

Long Live the Internet

How the Web Wins



The War For the Web

by [Tim O'Reilly](#) | [@timoreilly](#) | [Comments: 67](#)

Differences – The Internet vs. The Web

- **Internet**
 - Network of networks
 - Hardware: computers, cables
- **Web (www)**
 - Documents, sounds, videos, information
 - Connections: hypertext (HTTP)links
 - 40 billion public web pages