



## 2004 State of the Union and Executive Order



## Office of the National Coordinator

# Four Goals:

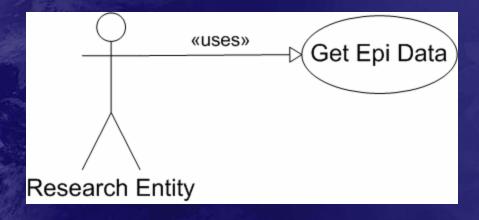
- 1. Inform Clinical Practice
- 2. Interconnect Clinicians
- 3. Personalize Care
- 4. Improve Population Health

## Benefits to Public Health\*

- Early detection of infectious disease outbreaks around the country
- Improved tracking of chronic disease management
- Ability to gather de-identified data for research purposes
- Evaluation of health care based on value, enabled by the collection of price and quality information that can be compared

\*Health Information Technology Initiative Major Accomplishments: 2004-2006 http://www.hhs.gov/healthit/news/Accomplishments2006.html

# Public Health Use Case



- In Development
- Published in August; Public comment period has ended

# National Health Information Network



"...a secure, nationwide, interoperable health information infrastructure that will connect providers, consumers, and others involved in supporting health and healthcare..."

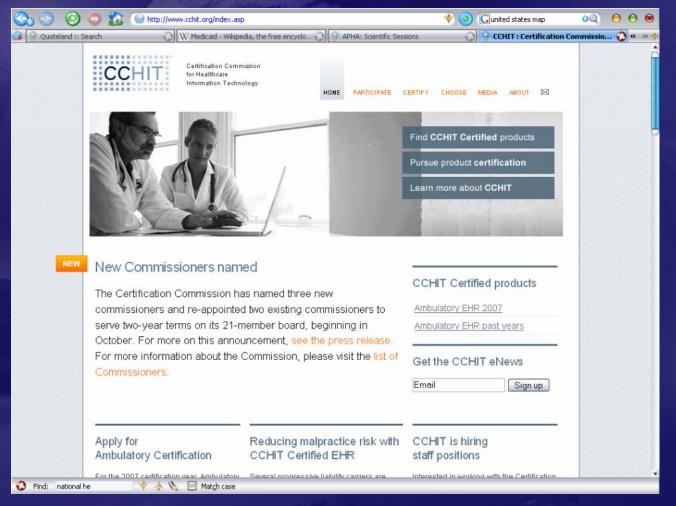


"A market is the combined behavior of thousands of people responding to information, misinformation and whim."

-Kenneth Chang

## EHR Products and CCHIT

CCHIT certification helps providers by certifying for:



- 1. Functionality
- 2. Interoperability
- 3. Security



# **CCHIT Certified Products\***

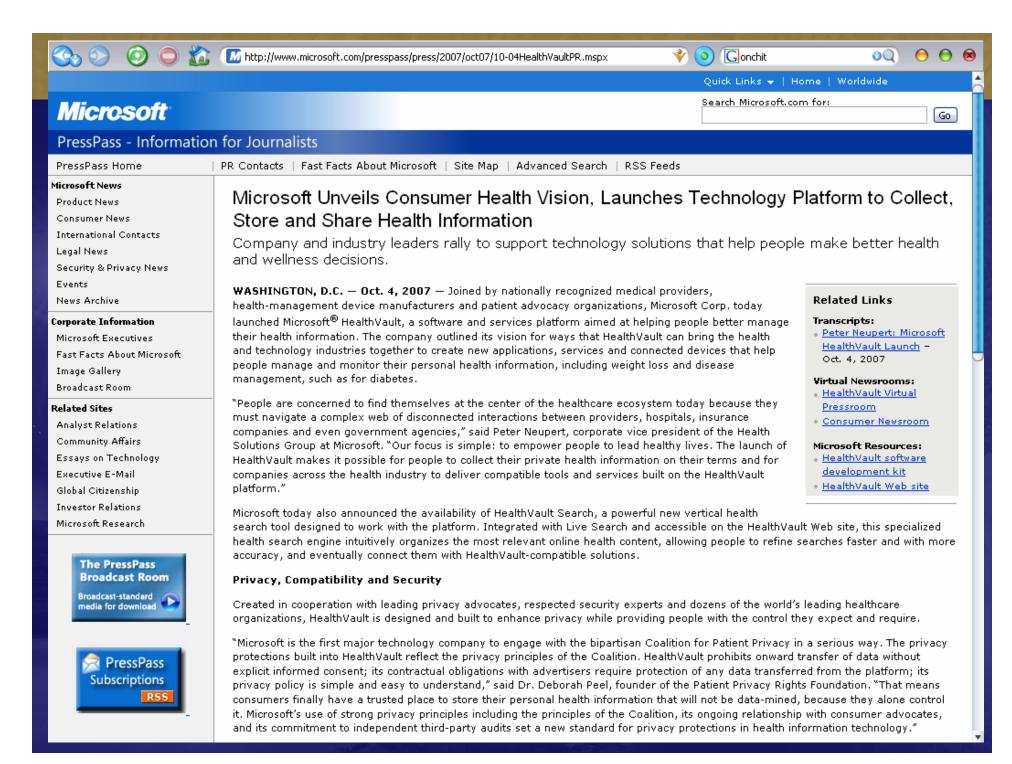
ABELMed PM - EMR 7.0	iMedica Patient Relationship Manager 2006, version 6.0	OmniMD EMR 6.0.5
Accelerator Graphical Health Record 4.111	Intelligent Medical Software IMS 2007	OpenChart 8.0
AHLTA 3.3	Intergy EHR by Sage v3.00	Patient Chart Manager 5.3
AllMeds EMR Version 7	Intergy EHR by Sage v3.50	PEARL EMR 6.0
athenaClinicals 0.15	LifeT.I.M.E. 7.100	Physician's Solution 3.0
Avatar PM 2006 Release 02	Longitudinal Medical Record LMR 5.1.1	PowerChart 2005.02
Bond Clinician EHR 2006	MDAware® 2.2	Practice Partner 9
CareRevolution 5.0i	MDLAND Electronic Health Record and Practice Manag	Practice Partner 9.1
CattailsMD Version 5	MDTABLET 2.6.7	Practice Partner 9.2
Centricity® EMR 2005 Version 6.0	MEDAZ 60720.001	Practice Suite Version 2
Centricity® Practice Solution Version 6.0	MEDENT 16	Praxis® Electronic Medical Records, version 3.5
Companion EMR v8.5 currently known as HealthPort EMR v8.5	Medical and Practice Management MPM Suite MAGIC	PrimeSuite 2007
CureMD 9.0	Medical and Practice Management Suite Client Server Ve	Pro-Filer 2007.0.0
dChart EMR 4.5	Medical Messenger Astral Jet EMR 3.7.1	PrognoCIS 1.81
eClinicalWorks Version 7.0 Release 2	Medical Practice EMR 14	Pulse Patient Relationship Management 3.1.1
eClinicalWorks Version 7.5	Medicat 8.8	Record 2006 V 3.0
e-MDs Solution Series 6.1	MedicsDocAssistant 3.0	SequelMed EMR V7.50
Emrge 6.0 Release 1.0	MedicWare EMR 7	SpringCharts EHR 9.0
EncounterPRO® EHR 5.0	MedInformatix V 6.0	Streamline MD 9.0.9
Endosoft 3.0.3.5	MediNotes e 5.0	Sunrise Ambulatory Care 4.5
E-Paperless Practice V2.01	MedPlexus EHR 8.5	SynaMed EMR 5.487
EpicCare Ambulatory EMR Spring 2006	meridianEMR 3.6.1	TouchChart 3.3
EpiChart 5.2	MicroMD EMR 5.0	TouchWorks Electronic Health Record 11.0
GiaceEMR 2.0	Misys EMR 8.0	VersaSuite 7.5
gloEMR 3.5	mMD.Net EHR 9.0.9	Visionary Dream EHR 7.1
HealthMatics Electronic Health Record 2006	myNightingale Physician Workstation 5.2	vxVistA V1.0
HealthPort EMR v8.5 formerly Companion EMR v8.5	NextGen EMR 5.3	Waiting Room Solutions Practice Management System 3
Horizon Ambulatory Care Version 9.4	NextGen EMR 5.4.28	WebChart 4.23
IC-Chart Release 6.0	Noteworthy EHR 5.4	Workflow EHR 2.1
iMedica Patient Relationship Manager 2005, version 5.1	OfficeEMR 2007	WorldVistA EHR VOE/ 1.0

# For Comparison...

### Current Baskin-Robbins Ice Cream Flavors\*

100 8 ft - 1 1 1 1 000 1 000 1 1 1 1 1 1 1 1 1 1		
Cherries Jubilee	Vanilla	Fudge Brownie
Chocolate	Very Berry Strawberry	Love Potion #31®
Chocolate Chip	World Class® Chocolate	Perfectly Peachy
Chocolate Chip Cookie Dough	Jamoca® Oreo	Pink Bubblegum
Chocolate Fudge	Chocolate Oreo	Tax Crunch®
French Vanilla	Oreo Cookies 'n Cream	Turtle Cheesecake
Gold Medal Ribbon®	Rainbow Sherbet	Banana Nut
Jamoca® (coffee)	Daiquiri Ice	Black Walnut
Jamoca® Almond Fudge	Caramel Turtle	Chocolate Almond
Mint Chocolate Chip	Tin Roof Sundae	Creole Cream Cheese
Nutty Coconut	Maui Brownie Madness®	English Toffee
Old Fashioned Butter Pecan	Vanilla Nonfat Yogurt	Fudge Brownie
Oreo® Cookies 'n Cream	Red Raspberry Sherbet	Lemon Custard
Peanut Butter 'n Chocolate	Lemon Sorbet	Mississippi Mud
Pistachio Almond	Bananas 'n Strawberries	Orange Sherbet
Pralines 'n Cream	Baseball Nut	Oregon Blackberry
Reese's® Peanut Butter Cup	Chocolate Mousse Royale®	Rum Raisin
Rocky Road	Everyone's Favorite Candy Bar	Wild 'N Reckless

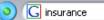




















#### Search Results for Google



June 21, 2007 03:46 PM Eastern Daylight Time

#### CapMed Exec Outlines Ideal Personal Health Record at American Health Insurance Plans' Annual Meeting

#### CapMed Offers Complementary Emergency Personal Health Record to All Attendees

AHIP Institute 2007

NEWTOWN, Pa.--(BUSINESS WIRE)--CapMed, a division of Bio-Imaging Technologies, Inc. (NASDAQ: BITI), a leader in Personal Health Management Solutions, announced that Wendy Angst, general manager of CapMed, will outline the requirements for an ideal personal health record (PHR) at Institute 2007, American Health Insurance Plans' Annual Meeting, "Real Healthcare Consumerism - Lessons on How to Make Consumer-Focused Efforts More Meaningful" will take place on Friday, June 22 at 10:45 am and showcase optimal PHR features such as flexibility, portability, privacy, consumer-focus, security, automatic population, and personalization.

A co-sponsor of Institute 2007, CapMed is offering attendees complementary licenses to its Online Emergency Personal Health Record (EPHR). Accessible via CDs distributed to all attendees, the EPHR allows healthcare consumers to record information related to demographics, conditions, medications, allergies, medical devices, emergency contacts, and insurance information. Using the 'Invite Others' features, users can provide access to all or part of their health information to caregivers, providers or others through secure URL. Also featured on the CD is an interactive presentation highlighting CapMed's Personal Health Record suite which include claims download capabilities, treatment decision support, targeted messaging, drug interaction checking, and other health and wellness tools.

"We now have the power to extend the PHR through integrated decision support tools and advanced analytics that leverage health claims and other data," says Wendy Angst, General Manager of CapMed. "The result is a PHR solution that's comprehensive, consumer-centric, interoperable, modular, customizable, and secure."

Institute 2007 is being held from June 20-22 at The Wynn in Las Vegas, where CapMed will showcase its personal health management solutions at booth #1237. Plans are for CapMed to focus on the TEPR-award winning Personal Health Record suite, including desktop and portable versions, as well as the newly released online version.

CapMed offers three interchangeable formats: the Online Personal Health Record, Personal Health Record (PHR) desktop software and the portable Personal HealthKey™, which uses USB flash technology for enhanced health information portability, security, privacy and data protection.

CapMed, a division of Bio-Imaging Technologies, Inc., is the cornerstone of Bio-Imaging's Personal Health Management Division. CapMed is the leading provider of patient outreach solutions for hospitals and healthcare systems, providers' offices, managed care organizations and pharmaceutical companies, with more than 700,000 distributed to date. These solutions enable patients to monitor and manage their health and to improve communications with care providers, ultimately improving outcomes and reducing costs of care and are available in three formats: the portable Personal HealthKey™, Personal Health Record CD-ROM and the Online PHR. CapMed offers custom development to organizations who want to add unique or proprietary capabilities to the platform. For more information on the CapMed Personal Health Management Solutions, please visit www.CapMed.com or the consumer website, www.CapMedPHR.com.

Bio-Imaging Technologies, Inc. is a healthcare contract service organization providing services that support the product development process of the

> 2005









- Vision, Mission & Values
- > Board and Officers
- > Financials
- > Public Policy
- > Procurement
- Careers

Community Involvement

Highmark Companies

Home > About Highmark > Newsroom > 2007 Press Releases

About Highmark

Press release: May 23, 2007

Highmark Blue Cross Blue Shield

Highmark Blue Cross Blue Shield launches personal health record

May 23, 2007 | Pittsburgh, Pa. —

#### Members can view and manage their own health care information

Highmark Blue Cross Blue Shield members can view and manage their own health care information through Highmark's Personal Health Record, which is a private, secure and password-protected Web-based tool available through www.highmarkbcbs.com.

As a single source for health information about members and their dependents, the Personal Health Record from Highmark utilizes medical claims and administrative information as well as information that is entered by consumers themselves.

"Under our country's current health care system, health information is often disjointed, which leads to inefficient and ineffective medical care," said Donald Fischer, M.D., Highmark chief medical officer and senior vice president, "The Personal Health Record from Highmark enables consumers to view and manage their own health information, which allows them to take their history to health care providers. It also provides members with a clear picture of their health situation and can recommend the necessary steps and information that will lead towards better health."

Highmark's Personal Health Record brings together health-plan-based and member-entered information, which provides consumers with a comprehensive and historical view of their health and encounters with the health care system.

#### Taking health actions

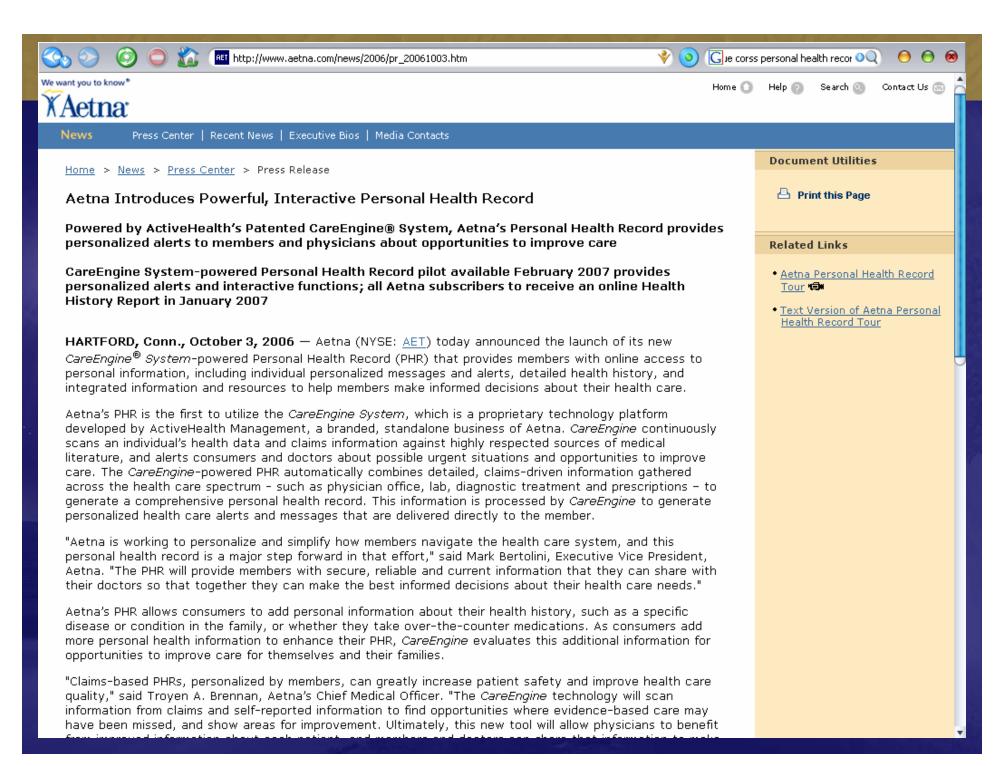
Using claims data from health, drug and other relevant information, the Personal Health

#### Related Links:

Browse our press releases:

> 2007 > <u>2006</u>

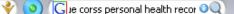
> 2004 > 2003





October 31, 2007













#### KAISER PERMANENTE

- and spotlight

#### News release: National

June 18, 2007

For more information, contact: Susannah Patton at 510 271-5826

#### Kaiser Permanente, Leader in Online Health Care, Participating in Medicare Study

CMS to Track Use of Health Plan's Popular Personal Health Record

Oakland, Calif. - Kaiser Permanente today announced it is partnering with the Centers for Medicare & Medicaid Services (CMS) in a project that will help inform Medicare beneficiaries about the benefits of using online health tools to manage their health.

The pilot project, set to begin June 18, will promote the use of online personal health records (PHRs) to Medicare patients, as well as reporting on the use of such tools.

Kaiser Permanente is a leader in online personal health management services. The organization's online health management tools, available under "Your Health Record," include lab test results, prescription refills, eligibility/benefits, past office visit summaries, allergy and immunization information and access for parents to their children's records. Already, over one million Kaiser Permanente members have accessed "Your Health Record" online at its Web site, kp.org.

"Kaiser Permanente provides its members online access to their medical records as part of its focus on patient-centered care," said Andrew M. Wiesenthal, MD, SM, associate executive director of The Permanente Federation, the national organization of the Permanente Medical Groups, "Our personal health manager is more powerful than standalone PHRs because it is linked directly to KP HealthConnect™, our electronic health record. Specific personal health information and tools enable our members to proactively manage their health."

Also, Kaiser Permanente members can e-mail their doctor and schedule appointments online. Currently, the organization has more than 1.4 million members connected online, more than any other integrated health system in the world.

"Our online services help patients get better access to their health information, while making it more convenient for those who would rather not leave work or home to manage their health," says Kate Christensen, MD, medical director for kp.org, "In the KP system, a patient can view her cholesterol test online, talk with her doctor by e-mail about the result and treatment plan, and then join an online nutrition program. The goal is to help people become healthier, not just view a record."

Just over 880 000 Kaiser Dermanente members are Medicare beneficiaries. They can

# But what is the "Industry?"

CNIS/ Centers for Medicare & Medicaid Services

Medicare\$387BMedicaid\$199BSCHIP\$6B

\$592B\*

\*The Henry J Kaiser Foundation: The President's FY 2007 Budget Proposal: Overview and Briefing Charts



# HHS Announces Project to Help 3.6 Million Consumers Reap Benefits of Electronic Health Records

In a move that will improve health care for millions of Americans, HHS Secretary Mike Leavitt today announced a five-year demonstration project that will encourage small to medium-sized physician practices to adopt electronic health records (EHRs).

"This demonstration is designed to show that streamlining health care management with electronic health records will reduce medical errors and improve quality of care for 3.6 million Americans. By linking higher payment to use of EHRs to meet quality measures, we will encourage adoption of health information technology at the community level, where 60 percent of patients receive care," Secretary Leavitt said. "We also anticipate that EHRs will produce significant savings for Medicare over time by improving quality of care. This is another step in our ongoing effort to become a smart purchaser of health care -- paying for better, rather than simply paying for more."

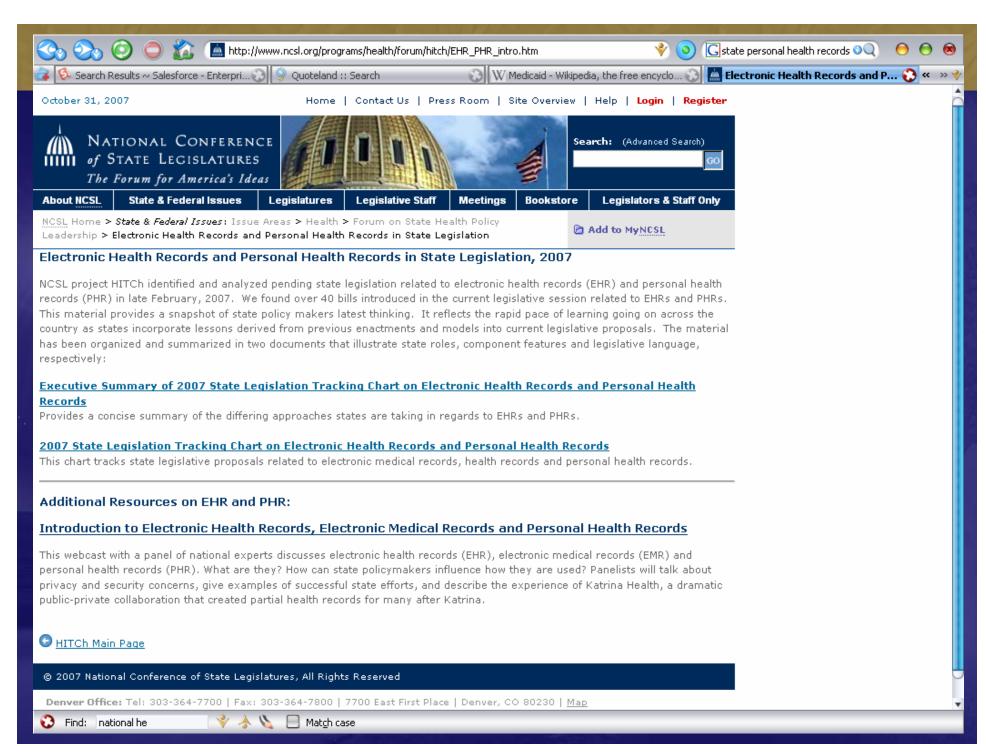
Conducted by the Centers for Medicare & Medicaid Services (CMS), the demonstration would be open to participation by up to 1,200 physician practices beginning in the spring. Over a five-year period, the program will provide financial incentives to physician groups using certified EHRs to meet certain clinical quality measures. A bonus will be provided each year based on a physician group's score on a standardized survey that assesses the specific EHR functions a group employs to support the delivery of care.

The CMS demonstration also will help advance Secretary Leavitt's efforts to shift health care in the U.S. toward a system based on value. The Department is working to effect change through its Value-Driven Health Care initiative, which is based on Four Cornerstones: interoperable electronic health records, public reporting of cost information, and incontings for value comparison.

# Don't forget the States...



"...as of February, 2007, 40 bills in 25 states addressing EHRs and PHRs..."



## Issues

- Current landscape is fragmented
- Public health initiatives lag
- Possible outcomes:
  - Common, standardized population size datasets unlikely in near term.
  - "Retrofitting" of public health solutions to current efforts likely needed
- Questions:
  - Are standards established enough to help consolidate a fragmented market?
  - Feds encouraging states and industry to drive. How does this affect the desired public health goals?

## What is behind this?

- The current business model does not favor Public Health interests
- Public Health is a data consumer and represents a cost to the system
- Drivers are
  - Quality of care
  - Efficiencies and cost savings
- Generally speaking, from a business perspective PH would not be explicitly invited

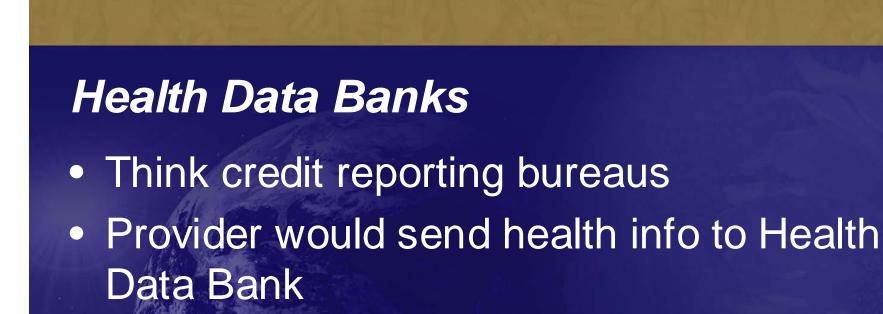




## **ONC** efforts 2007-2008

- ONC National Health Information Network (NHIN) comprised of Health Info Exchanges (HIEs) – 9 currently funded.
- Demonstrate connectivity among HIEs for sharing information
- Leverage current work
- Demonstrate use cases\*

\*Public Health Use Case not yet finalized; not part of current effort





- Current efforts are fundamentally to work through issues of standardization and interoperability, AND
- To establish the best practices for such implementations

Therefore...

# Best practices won't include public health needs



## What Can Be Done?

- Track ONC activities
- Look for opportunity to incorporate PH data needs from the beginning so that it becomes a best practice
  - Data sharing/data use agreements
    - Access to Health Data Banks
  - Data definitions/standards
    - Structures
    - Taxonomies
  - Piggyback on bio-surveillance use case

# Final Thoughts

- Industry is changing
- What will you do with all this data?
- How will you manage your world when you have all this data?
- How will this change the science you do and the decision making process?