



Innovation and Technology for Healthcare

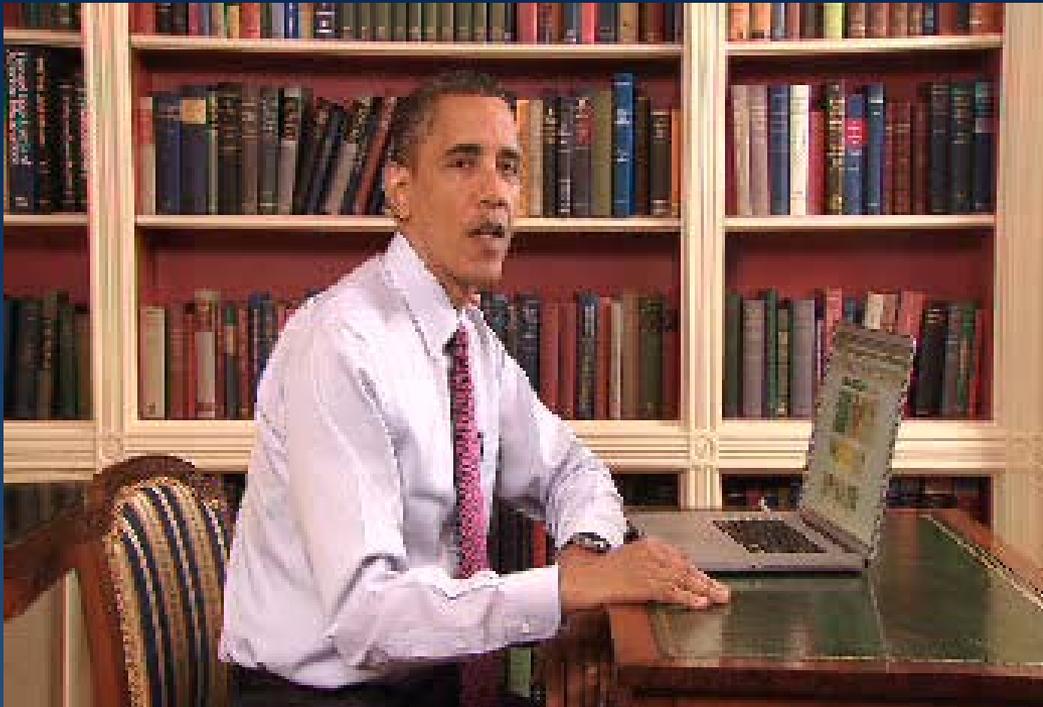
August 18th, 2010

Aneesh Chopra

U.S. Chief Technology Officer & Associate Director for Technology
White House Office of Science & Technology Policy

A Presidential Commitment to Technology

Healthcare.gov a Model for Simplifying Access to Information

A screenshot of the Healthcare.gov website. The page features a search bar, navigation links for 'Find Insurance Options' and 'Learn About Prevention', and a section titled '7 Options for You'. A green callout box is overlaid on the right side of the screenshot, containing text about the version 2.0 launch. Below the callout, a table lists insurance plans with columns for Plan, Services Covered & Excluded, Provider Network, Drug Coverage, More Information, and Price Estimates.

Health care is getting better. So is HealthCare.gov. Help us improve by adding your comments where you see

HealthCare.gov
Take health care into your own hands

Newsroom | Implementation Center

Home | Email Update | Font Size

Find Insurance Options | Learn About Prevention

Find Insurance Options
See which public, private and community

7 Options for You
Enter Your Info > Your Options

Based on the info you provided, Change Options

1. Coverage for Young Adults Under Age 26
2. Special Enrollment in Spouse's Job-based Health Plan
3. COBRA Coverage
4. Health Insurance Plans for Individuals & Families

Individual Health Anthem Health

(Click here for 5 quick tips for picking a plan.)

Not sure how to decide? Read 5 Important tips for Picking Plans

Plan	Services Covered & Excluded	Provider Network	Drug Coverage	More Information	Price Estimates
Virginia Advantage	View Plan Benefits	Correct Link Not Provided	No Link Provided	1-800-304-0372 Visit Website	Price estimates available Oct. 2010 (TOOD: details_link)
Individual Basic BlueCare	View Plan	Correct Link Not	No Link	1-800-304-0372	Price estimates available Oct. 2010 (TOOD: details_link)

Simple interface to access relevant insurance information; pricing data available in version 2.0 launching in October

“My Administration is committed to creating an unprecedented level of openness in Government...and establish a system of transparency, public participation, and collaboration.”

—President Barack Obama, Jan 21st, 2009



President's Strategy for American Innovation

Health Innovation an Opportunity for Growth and Efficiency

Health IT applications innovation that drive lower cost, higher quality, improved satisfaction

Catalyze Breakthroughs for National Priorities

- Unleash a clean energy revolution
- Support advanced vehicle technology
- Drive breakthroughs in health IT
- Address scientific "grand challenges"

Promote Competitive Markets that Spur Productive Entrepreneurship

- Promote American exports
- Support open capital markets that allocate resources to the most promising ideas
- Encourage high-growth and innovation-based entrepreneurship
- Improve public sector innovation and support community innovation

Invest in the Building Blocks of American Innovation

- Restore American leadership in fundamental research
- Educate the next generation with 21st century knowledge and skills; create a world-class workforce
- Build a leading physical infrastructure
- Develop an advanced information technology ecosystem



Technology Approach to Spur Market Solutions

Three Levers to Deliver on the Promise of Healthcare IT

I

Provider Adoption

#Meaningful Use Incentive Payments: Flagship Recovery Act initiative offering \$20+BN provider reimbursement for HIT adoption

#“Modular” Health IT Applications: Certification program encourages flexible, innovative approaches to EHR architecture

#Privacy & Security Provisions: Patient privacy protected by best-in-class electronic data security, and law

II

Data Interoperability

#NHIN Connect: Open source standards-based software to promote federal agency health data exchange

#NHIN Direct: Voluntary, consensus driven standards to govern simple, secure data transmission over the Internet

#“Blue Button”: Simple standardized file format to allow consumers access to health data on federal websites (VA, Dept of Defense, CMS)

III

Application Innovation

#Community Health Data Initiative: Flagship open government initiative to spur “mash-ups” on health data to spur local improvement

#Payment Innovation Center: Estimated \$10BN CMS center focused on shifting provider payment based on quality

#Advanced IT Infrastructure: Strategy to leverage ultra high-speed broadband, mobile broadband, and R&D commercialization



Incentive Program Tied to “Meaningful Use”

Health Providers Eligible Based on Demonstrated Use, not Adoption

Meaningful Use

Five Pillars

Quality, safety,
efficiency

Patient and family
engagement

Coordinated care

Improved public &
population health

Privacy & security

“Deep Dive”

Patient Engagement

#1: Timely access to an
electronic copy of your data

#2: Clinical summary after
every visit

#3: Alerts or reminders for
preventive and follow up care

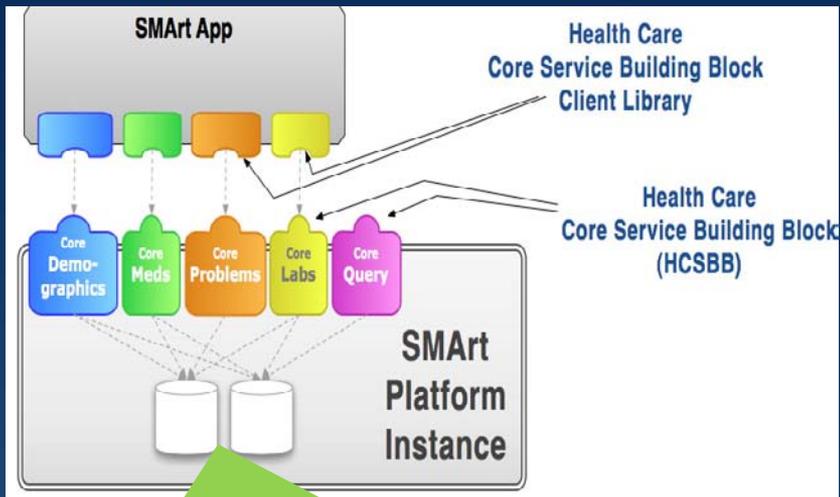
#4: Electronic access to patient
specific education resources



Modular Applications Supported Through R&D

Open Development Framework to Spur Substitute-Able Apps

SHARP Grantee - SMARt Apps



Harvard researchers focused on health platforms (like Indivo) to support substitutable apps – prototypes by 2011; aligned with “modular” certification for “meaningful use”

Leadership Team

No Small Change for the Health Information Economy

Kenneth D. Mandl, M.D., M.P.H., and Isaac S. Kohane, M.D., Ph.D.

The economic stimulus package signed by President Barack Obama on February 17 included a \$19 billion investment in health information technology. How can we best take advantage of this unprecedented opportunity to computerize health care and stimulate the health information economy while also stimulating the U.S. economy? A health care system adapting to the effects of an aging population, growing expenditures, and a diminishing primary care workforce needs the support

of a flexible information infrastructure that facilitates innovation in wellness, health care, and public health. Flexibility is critical, since the system will have to function under new policies and in the service of new health care delivery mechanisms, and it will need to incorporate emerging information technologies on an ongoing basis. As we seek to design a system that will constantly evolve and encourage innovation, we can glean lessons from large-scale

technology successes in other fields. An essential first lesson is that ideally, system components should be not only interoperable but also substitutable. The Apple iPhone, for example, uses a software platform with a published interface that allows software developers outside Apple to create applications; there are now nearly 10,000 applications that consumers can download and use with the common phone interface. The platform separates the system from the functional-

Advisory Council includes Professors Christensen, Herzlinger (HBS); Dossia, Microsoft, Cerner, CVS/Caremark, IDEO, Anvita Health, etc.



Privacy & Security Standards Atop the Agenda

Provider Incentive Payments Tied to Best-in-Class Protections

ONC Privacy & Security Tiger Team



Joy Pritts, Chief Privacy Officer for Health IT – supports “Tiger Team” with recommendations due 8/19/10

Topics include consumer choice or consent; sensitive data; interstate exchange

- **Deven McGraw**, Center for Democracy & Technology, Co-Chair
- **Paul Egerman**, Co-Chair
- **Dixie Baker**, SAIC
- **Christine Bechtel**, National Partnership for Women & Families
- **Rachel Block**, NYS Department of Health
- **Neil Calman**, The Institute for Family Health
- **Carol Diamond**, Markle Foundation
- **Judy Faulkner**, EPIC Systems Corp.
- **Gayle Harrell**, Consumer Representative/Florida
- **John Houston**, University of Pittsburgh Medical Center; NCVHS
- **David Lansky**, Pacific Business Group on Health
- **David McCallie**, Cerner Corp.
- **Wes Rishel**, Gartner
- **Micky Tripathi**, Massachusetts eHealth Collaborative
- **Latanya Sweeney**, Carnegie Mellon University



Nationwide Health Information Network

Social Security Administration Delivers Early Results

Open Collaborative

NHIN CONNECT in Action



The Mayo Clinic to host a CONNECT Code-A-Thon in Rochester, MN

September 21-22, 2010

Interested in Hosting a Code-A-Thon?

CLICK FOR DETAILS!



Quarterly 2-day workshops to build code, deliver interoperability solutions at your pace, interest



Early Results: mean case processing time savings of 42% as compared to the Virginia state average



Convening Stakeholders to Accelerate Exchange

Open Collaboration Delivers Technical Specs in 90 Days

NHIN Direct Project in Brief



“A set of policies, standards and services that enable the Internet to be used for secure and meaningful exchange of health information to improve health and health care”

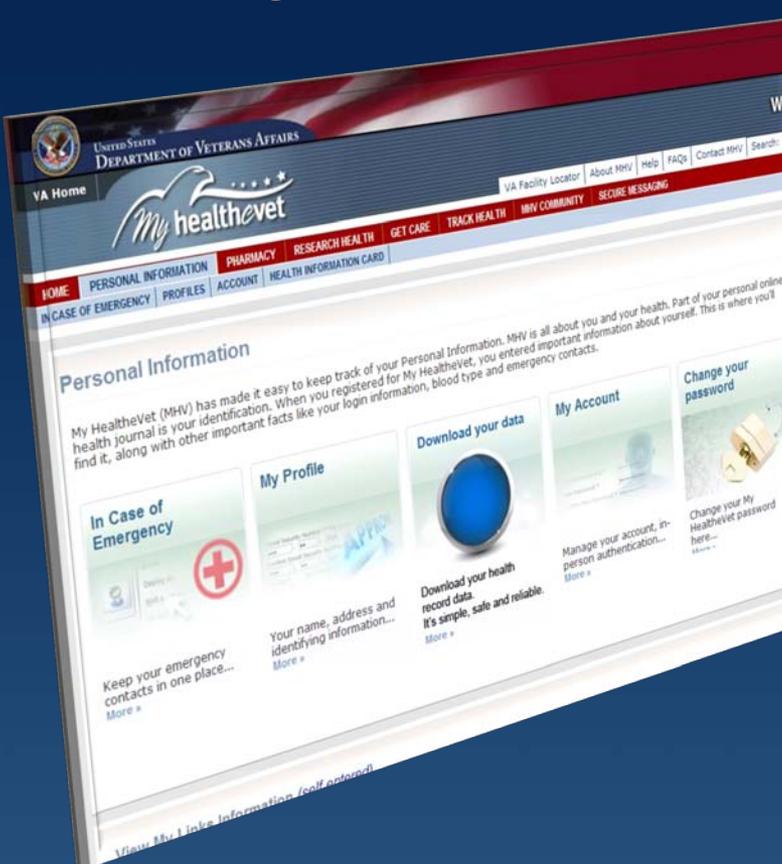
SMTP-based specs for all providers; intended as a stepping stone to NHIN Exchange

Secure, Direct Communication



“Blue Button” to Liberate Personal Health Data

Previewing New Tool for Veterans, Medicare Recipients this Fall




The image displays two overlapping screenshots of government health websites. The left screenshot shows the MyHealthVet website with a navigation bar and a 'Personal Information' section. A prominent blue button labeled 'Download your data' is visible. The right screenshot shows the MyMedicare.gov website, specifically the 'On The Go Report: John Owen' page. It features a 'Download My Data' button and a table of personal profile information.

Name:	Nancy Hoyle	Date of Birth:	11/23/48	Part A Effective Date:	6/12/2000
Address:	1234 Main Street Baltimore MD, 21244	Gender:	Female	Part B Effective Date:	6/12/2000
Home Phone:	410-123-3456	Weight:	190lbs		
Email Address:	sample@email.com	Blood Type:	AB+		

“...veterans will be able to go to the VA website, click a simple “blue button,” and download or print your personal health records so you have them when you need them and can share them with your doctors outside of the VA.”

—President Barack Obama, Aug 2nd, 2010



The Birth of an Open Government Ecosystem

HHS Launches Community Health Data Initiative (CHDI)



HHS launches CHDI June 2nd - demonstrating 20+ apps recently built or improved by innovators across the country using data HHS has made public (with much more to come)

Example: Microsoft announces Bing Health Maps and the incorporation of "Hospital Compare" data in search results – "bringing the data to you"



Helping Our Children Make Healthier Choices

Prizes Policy Spurs USDA to Reward Apps Developers

APPS FOR HEALTHY KIDS

FAQ | Login | Register FOLLOW US ON twitter

LET'S MOVE! USDA

Home Application Gallery Submit Application Resources Partners

Let's Move! for the **Apps for Healthy Kids** competition.

\$60,000 in prizes to create innovative, fun and engaging software tools and games that encourage children directly or through their parents to make more nutritious food choices and be more physically active.

CHALLENGE SUPPORTERS
40,059

31,683 ADULTS 8,376 KIDS

I support this tool!

Why Click?

Promote this challenge: Twitter Facebook MySpace

Recent Supporters:

95 qualified apps built on data that feeds USDA site – judges include Zynga's CEO, "Woz", GE's Healthmagination lead



Sample App: Smash Your Food™ lets children see foods explode - while learning how much sugar, salt and oil are in them

“The Apps for Healthy Kids competition challenges... the most creative, talented, and kid-savvy innovators across the country to build games that inspire and empower kids to get active and eat healthy.” —First Lady Michelle Obama, March 11th, 2010

Delivery System Reforms Powered by Payment

“Pay for Value” Models Rely on More Robust Tech Infrastructure

Implications for Tech

1

Patient Centered Medical Homes

Community based; will drive greater organization of outpatient care, coordination and team-based approaches

2

Accountable Care Organizations

Shared savings (primary, specialty care); Redesign care processes for high quality, efficient delivery; vertical organization

3

Bundled Payments

Pilot program for episodes of care; incentivizes reduced costs around eight conditions

4

Readmission Reduction Programs

Motivates hospitals to engage with care coordinators and better organized delivery systems

Data Driven: Democratize access to data mining/analytics

Care Integration: Centralize patient data, track performance (cost and quality), and analyze case mix

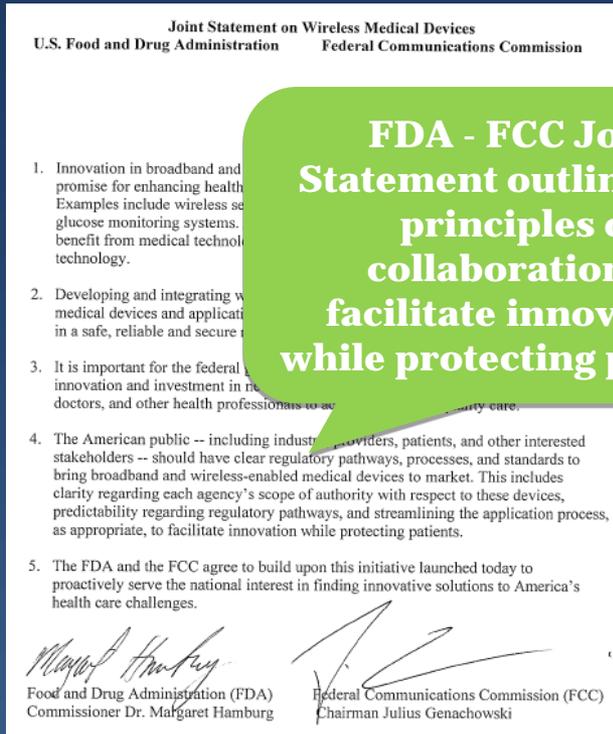
Clinical Transformation: Provide physicians with standardized and timely data needed to make clinically effective decisions and reduce care quality variation

Capacity Building: Extend physician reach



Unleashing a Mobile Broadband Revolution

FDA-FCC Announce Collaboration on Wireless Medical Devices



FDA - FCC Joint Statement outlines five principles of collaboration to facilitate innovation while protecting patients

She's one smart mom
She's got **text4baby**



Text BABY to 511411
Get **FREE** messages on your cell phone to help you through your pregnancy and your baby's first year

Innovations: Text4baby partnership serves 50,000+ moms since 02/10 launch; Secretary Clinton announces Russian collaboration



text4baby
text4baby.org

“[I] commit the Federal government to a sustained effort to make available 500 MHz of Federal and commercial spectrum over the next 10 years to foster investment, economic growth...”

—Presidential Memorandum, June 28th, 2010

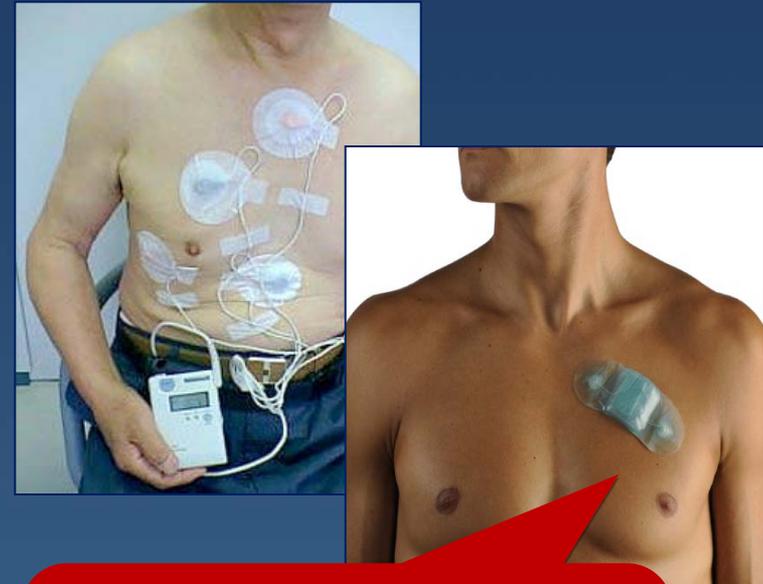
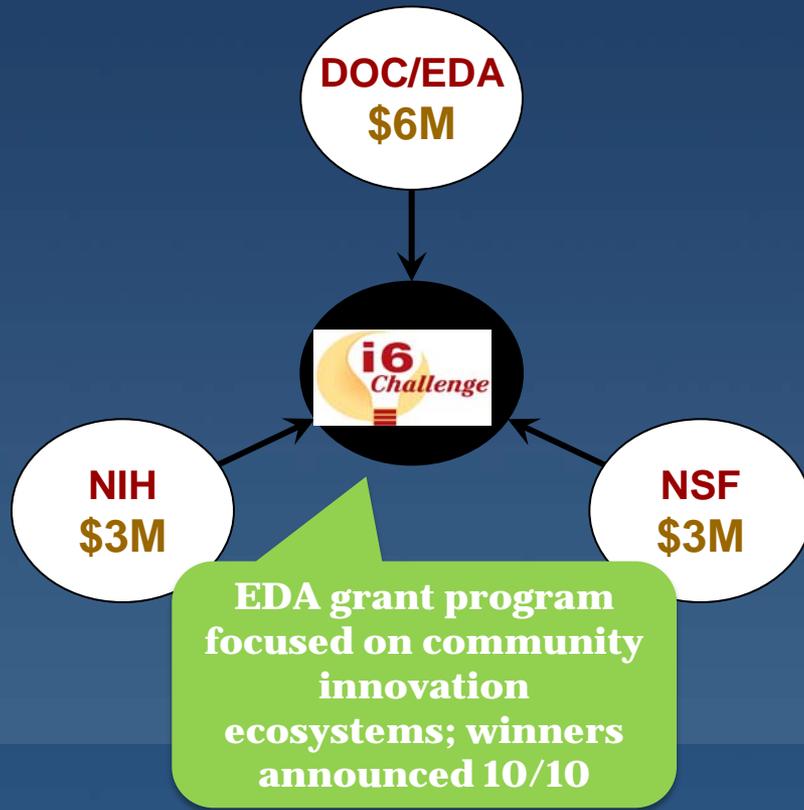


R&D Tech Transfer Programs to Close “Lab Gap”

Commerce Department’s i6 Challenge to Find Next iRhythm

Commercialize University Research

Spinoff Pursues Health IT



iRhythm, spun out of Stanford, designs low-cost device to enable cardiac rhythm monitoring and expand market access to care



“All Hands” - Health 2.0 Developer Challenge



A growing number of “challenges” leading up to Health IT Innovation Week – October 3-10th, 2010

Featured Challenges



WWHI catalyzes innovation - \$10K for a personalized wireless health ecosystem; sponsors “Innovation Day” – highlighting Veterans Healthcare (VAi2) – 10/12/10

Accelerating Wireless Health Adoption

Challenger: West Wireless Health Institute
Create an application that will integrate sensor-derived data with social networks to construct a personalized wireless health ecosystem.

Blue Button Challenge

Challenger: Markle Foundation and RWJF
Develop a web-based tool that uses sample data from CMS or VA to help patients stay healthy and manage their care.

