

HEALTHCARE
APPS
BIG DATA
CLOUD
CYBER
MOBILITY



Transforming Healthcare: Better Information for Better Decisions

Dr. Robert Wah
Global Chief Medical Officer, CSC
Former AMA President
Follow me [@RobertWahMD](https://twitter.com/RobertWahMD)



CMP
Under BusinessWeek

Trade Debate The United States still holds an edge in IT-services skills

Share The Code States team on open-source repository

Sticker Shock Small retail suppliers brace for RFID costs

InformationWeek

Business Innovation Powered By Technology

March 22, 2004



The Awesome Responsibility Of DATA

DATABASES CONTAINING PERSONAL INFORMATION APPROACH PETABYTE LEVELS

ALSO: AIRLINES WRESTLE WITH FED DEMAND FOR PASSENGER DATA

Dr. Robert Wah, U.S. Navy Medical Corps, is working on a database to handle medical records for all military personnel and their families.

U.S. Department of Health & Human Services

The Office of the National Coordinator for Health Information Technology

News

TOP STORIES

Wah finishes his stint at ONCHIT



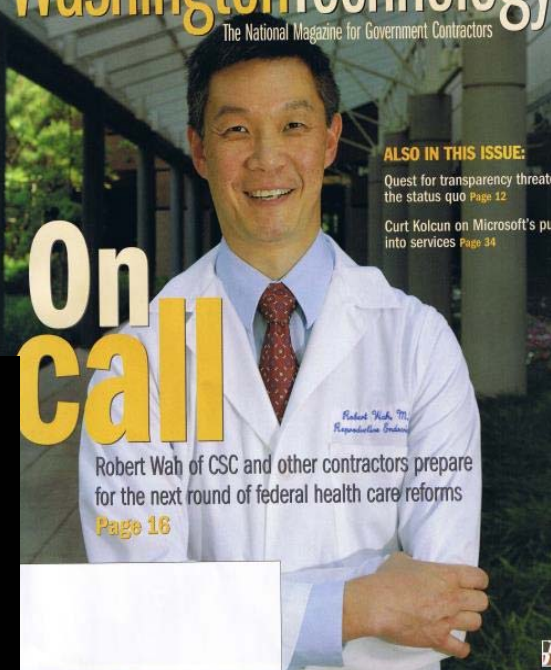
Navy Capt. Robert Wah, chief operating officer at the Office of the National Coordinator for Health Information Technology, ended his detail to ONCHIT and returned to the Defense Department last

coordinator, Brailer's message states. Wah has done a superb job since his appointment as acting deputy national coordinator in October 2005, and "we have been fortunate to have him with us".

07.14.08 • Cisco focuses on government PAGE 24 | BearingPoint aids Forest Service PAGE 26 | Vidio helps fight crime PAGE 28

WashingtonTechnology

The National Magazine for Government Contractors



On call

Robert Wah of CSC and other contractors prepare for the next round of federal health care reforms

Page 16

ALSO IN THIS ISSUE:
Quest for transparency threatens the status quo Page 12
Curt Kolcun on Microsoft's push into services Page 34

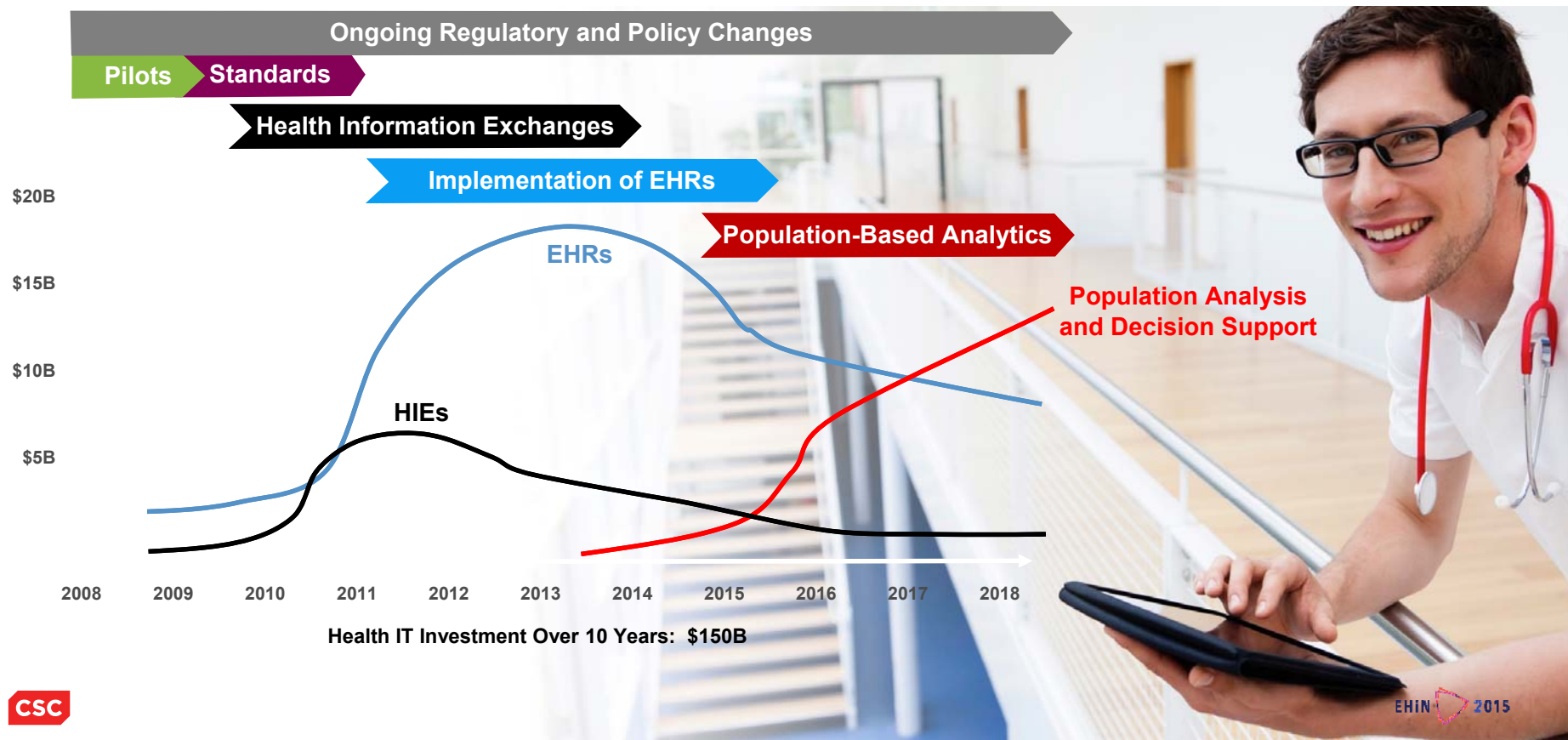


Robert M. Wah, MD
AMA President, 2014-2015




Three Waves of Health IT Investment

Health Information Exchanges (HIEs) • Electronic Health Records (EHRs) • Tools for Health Analytics



Shining a Light on Physician Dissatisfaction

- Cumbersome EHRs
- Burdensome regulations and compliance requirements
- Excessive productivity quotas
- Lack of autonomy



Priorities to Improve EHR Usability

- Enhance physicians' ability to provide high quality care
- Team-based care
- Care coordination
- Product modularity and configuration
- Reduce cognitive workload
- Promote data liquidity
- Digital and mobile engagement
- User input into product design and post-implementation feedback



Improving Care: Priorities to Improve Electronic Health Record Usability

EXECUTIVE SUMMARY

The American Medical Association (AMA) recognizes the potential value of electronic health records (EHRs). Effective use of EHRs is a key element in achieving the Triple Aim—improving the patient experience of care (including quality and satisfaction), improving the health of populations and reducing the per capita cost of health care. Adoption and effective use of EHRs has been slow, however, in large part due to shortcomings with early generation EHRs that were, and frequently remain, poorly optimized to support efficient and effective clinical work provided by physicians and other clinicians.

Although EHR adoption has increased over the past decade due to market and government incentives, including the federal Meaningful Use (MU) program,¹ how to effectively use EHR products is an ongoing concern for physicians. Research suggests that this is because of the challenges physicians have interacting with the EHR to safely and effectively deliver care.² These challenges can be classified as usability issues—i.e., the design and implementation of EHRs do not align with the cognitive and/or workflow requirements and preferences of physicians within and across specialties and settings.

Achieving the Goal of Improved EHR Usability

Improving EHR usability and finding its proper place in the overall health information technology (health IT) ecosystem is an important goal for our nation's health care system. National leaders in health IT usability also

have identified this national priority and have made recommendations to improve usability.³ The AMA adds its voice to this call and believes that it is imperative to step back and reframe the discussion around the desired future capabilities of the EHR, making clinical care improvements the primary focus.

It is within this framework that the AMA identified key challenges physicians face with current EHRs and recommends eight EHR usability priorities to be urgently addressed. Additionally, AMA urges continued research to advance EHR usability through understanding and measuring its effectiveness for physicians and other health care professional users who increasingly rely on this technology.

The AMA recognizes that many of the recommendations can only be implemented in the long term due to vendor product development life-cycles, limitations of current legacy systems and existing contracts, regulations and institutional policies. However, there is a great sense of urgency to improve EHRs because every patient encounter and the physician's ability to provide high-quality care are affected by the current state of usability. Improving EHR usability requires significant effort among all stakeholders—vendors, physicians, other health care professionals, institutions, patients, researchers and policymakers.

Eight EHR Usability Priorities

1 **Enhance Physicians' Ability to Provide High-Quality Patient Care.** Effective communication and engagement between patients and physicians should

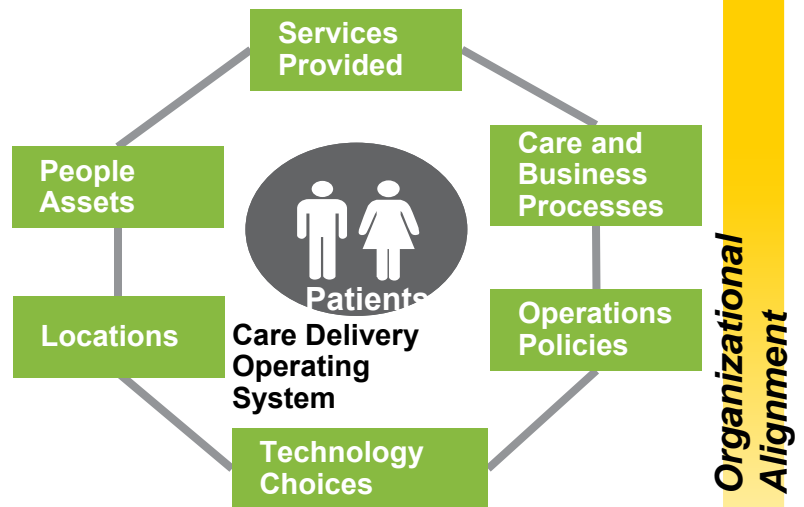
3 Middlebrooks, JL, Iltis, Steven M, Dente, M, et al. Enhancing patient safety and quality of care by improving the usability of electronic health record systems: recommendations from AMA. *J Am Med Inform Assoc.* 2013; 20: 62-68.

¹ The Health Information Technology for Economic and Clinical Health (HITECH) Act, part of the American Recovery and Reinvestment Act (ARRA) enacted into law in 2009, was designed to create incentives for providers to adopt EHR technology (HITECH) provides approximately \$26 billion in financial incentives to eligible professionals and other providers who treat Medicare and Medicaid patients. Physicians and other eligible professionals must meet federally outlined criteria and utilize federally certified EHR technologies to receive reimbursement. This incentive program is known as the Meaningful Use (MU) program.

² *J Am Med Inform Assoc.* 2014; 21(6): e1-11.

Care Coordination Maturation

Organizational Alignment



LEVEL 5: PREDICTIVE COORDINATION

- Patient and provider behavior change achieved
- Outcomes improved
- Big data and predictive analytics

LEVEL 4: COORDINATION

- Outcomes impacted
- Communication and collaboration bridges adopted
- Coordinated Care Program matured, part of organizational DNA
- Workflows socialized
- Patients engaged in their health
- Analytics impacting outcomes

LEVEL 3: COLLABORATION

- Robust coordinated care program — care coordination workflow/workspace established
- Coordinated Care record
- Increased patient engagement (teleservices)

LEVEL 2: COMMUNICATION

- Provider workflow (care transitions and notifications)
- Message and data exchange (DIRECT, CCD)
- Basic reporting program initiated

LEVEL 1: INFRASTRUCTURE

- Technical infrastructure
- Data ingestion
- Information exchange
- Base lifetime EHR
- Begin workflow process changes
- Program planning
- Organizational alignment
- Governance

CURRENT STATE

- Traditional approaches to case and disease management

BIG DATA

Predictive

Analytics

Business Intelligence

Reporting



Half a Million Registered Users Have Access to Critical Healthcare Information Systems

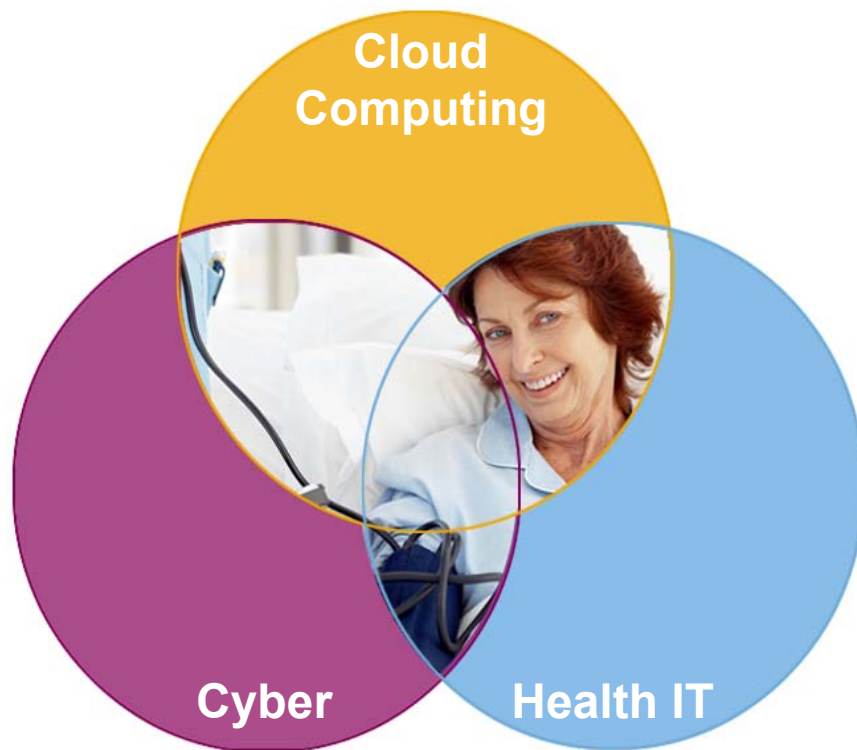
- **25 million patient records** under management
- Nationwide, hosted IT infrastructure
- Supporting government health objectives of patient choice, patient-centric care, safety and clinical efficiency
- Largest supplier of hospital EPR and PAS systems



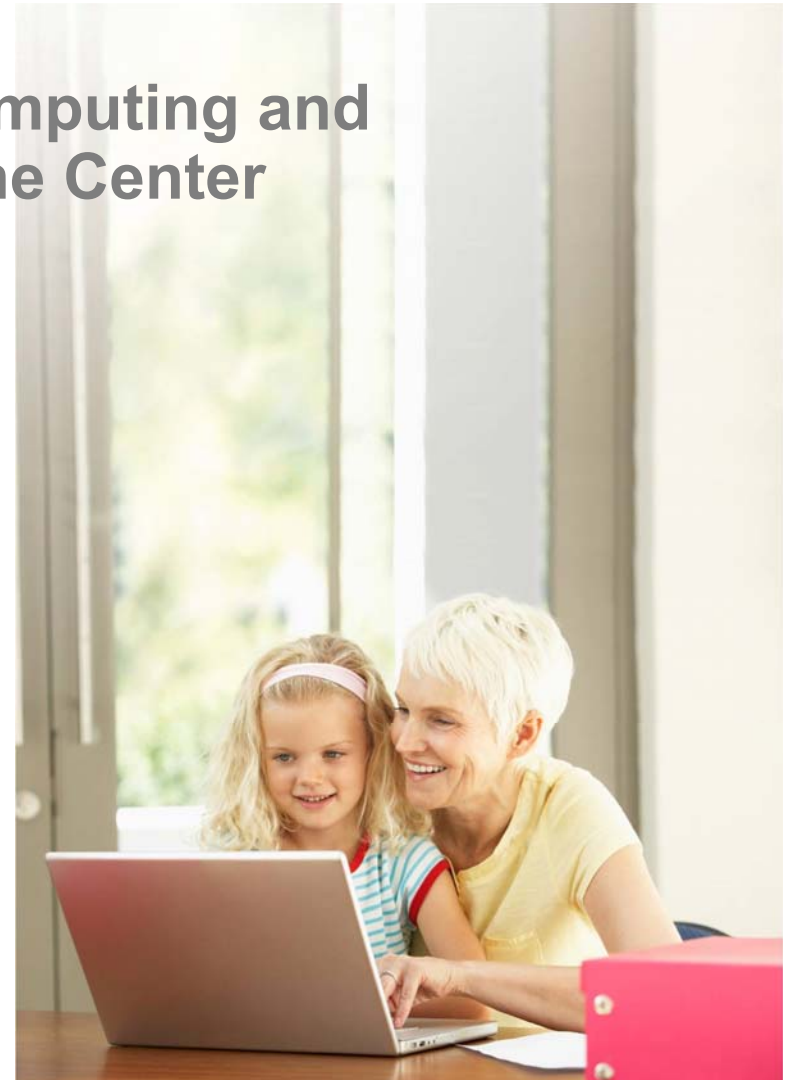
- ✓ **100+** hospitals EPR and PAS systems
- ✓ Departmental systems including Medication Management and Laboratory Systems
- ✓ **c.2,000** primary care / community care patient admin and practice management systems
- ✓ Emergency services system for **c.1,400** ambulances across eight organizations
- ✓ **c.140** primary care patient admin and practice management systems in prisons



Intersection of Health IT, Cloud Computing and Cybersecurity with the Patient in the Center

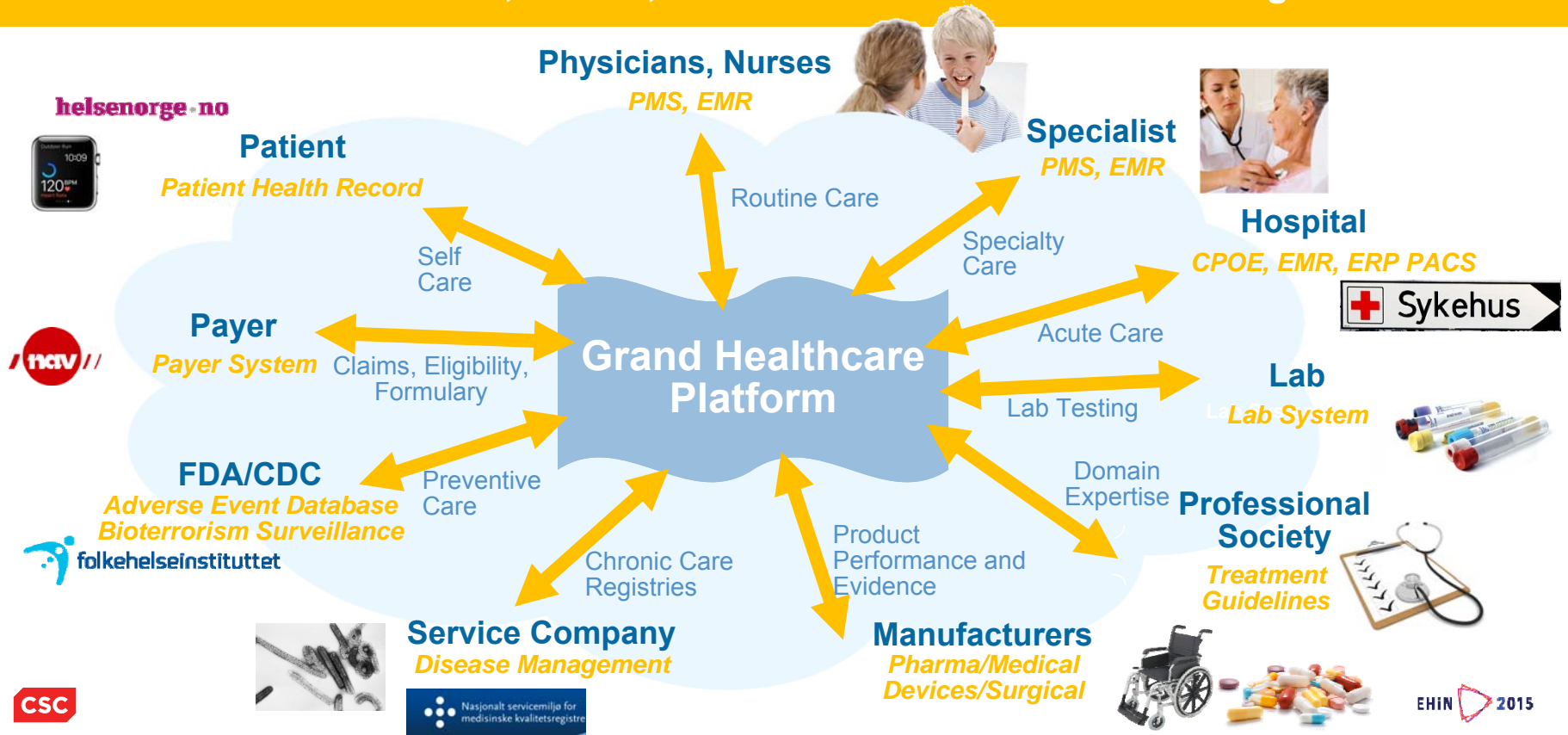


CSC



The Future

Interconnected, Private, Secure Health Information Exchange



Better Information for Better Health Care Decisions

QUALITY OF CARE IS IMPROVED WITH BETTER INFORMATION - SAVING LIVES AND MONEY



Patients make better decisions about their care, their physicians, and their health



Physicians make better decisions for their patients



Government makes better decisions about quality of care, biosurveillance, utilization, integrity and transparency

Questions?

Robert M. Wah, MD

rwah@csc.com

Robert.Wah@ama-assn.org

Follow me [@RobertWahMD](https://twitter.com/RobertWahMD)

