



# **Connecting the Unconnected: How to Reach Unaffiliated Physicians Through Health Information Exchange**

Dial-in information:  
**1.800.705.5308**

November 2, 2011

# About eHealth Initiative (eHI)

- Since 2001, only national, non-partisan group that represents all the stakeholders in health care.
- Mission to promote use of information and technology in healthcare to improve quality, safety and efficiency.
- Focused on education and advocacy.
- Coalition of over 200 organizations is one of most influential groups in data issues, HIT and HIE.
- eHI is the only group tracking the progress of over 260 regional, state and local initiatives working on health information exchange for 8 years.



# What Does eHI Do?

- Work with our members to influence policy
- Convene multi-stakeholders to build consensus
- Members contribute through virtual forums:
  - Meaningful Use and Health Reform Policy
  - Connecting Communities through Health Information Exchange
  - HIT Infrastructure for Accountable Care
  - Using Health IT to Coordinate Care
  - Data Analytics and Research
- Inform and mobilize reports, weekly newsletters, educational events and policy alerts.



# Housekeeping Issues

- All lines are muted
  - To ask a question or make a comment, please submit via the chat feature and we will address them in the order received at the appropriate time
- The webinar is being recorded.
  - Members can access slides and replays of any webinar for free from eHI's store
  - Non-members can purchase access to any webinar replay for \$25.00
  - eHI Store
    - <http://www.ehealthinitiative.org/store.html>



# Thank You to Our Sponsor



# Overview of Our Agenda

- **Introduction and Welcome (3:00 – 3:05 PM)**
  - Jason Goldwater, Vice President, Research and Programs, eHealth Initiative
- **Introduction (3:05 – 3:15 PM)**
  - Dr. Tom Stevenson, Chief Medical Officer, Covisint
- **Connecting the Unconnected (3:15 – 3:30 PM)**
  - Scott Afzal, Program Director, HIE, CRISP
- **Connecting the Unconnected Through HIE/HIT (3:30 – 3:45 PM)**
  - Dr. Steven Stack, Chair-Elect, Board of Trustees, American Medical Association
- **Health Information Exchange: Last Mile Providers (3:45 – 4:00 PM)**
  - Dr. Steven Waldren, Director, Center for Health IT, American Academy of Family Physicians
- **Questions and Final Thoughts (4:00 – 4:25 PM)**
- **Closing (4:25 – 4:30 PM)**
  - Jason Goldwater, Vice President, Research and Programs, eHealth Initiative



# Dr. Tom Stevenson

## Chief Medical Officer, Covisint



# Scott Afzal

## Program Director, HIE, CRISP







**CRISP**

*Connecting Physicians With Technology  
to Improve Patient Care in Maryland*

Chesapeake Regional Information System for Our Patients

# Maryland's Health Information Exchange

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Connecting the Unconnected

November 2<sup>nd</sup>, 2011



# What is CRISP?

Chesapeake Regional Information System for Our Patients

- CRISP (Chesapeake Regional Information System for our Patients) is Maryland's statewide health information exchange (HIE) and Regional Extension Center (REC)
  - **Health Information Exchange**, or HIE, allows clinical information to move electronically among disparate health information systems. The goal of HIE is to deliver the right health information to the right place at the right time—providing safer, more timely, efficient, effective, equitable, patient-centered care.
  - **Regional Extension Center** (REC) is a program created by the ONC that is funded through the stimulus bill. RECs will offer technical, implementation, and educational assistance to facilitate providers' adoption and meaningful use of electronic medical records (EMRs).



# Numbers at a Glance

Chesapeake Regional Information System for Our Patients

- Live Hospitals: **29 (48 expected by early December)**
- Live Labs and Radiology Centers: **5**
- Live Clinical Data Feeds: **28**
- Live VPNs: **55 (47 hospital connections)**
- Executed Participation Agreements: **60 (43 Hospital Agreements)**
- Identities in MPI: **~1.7M**
- Opt-Outs: **~500**
- Active Users (log-in w/in past 60 days): **176**
- Queries (past 30 days): **703**
- Lab Results Available: **~2.4M**
- Radiology Report Available: **~1M**
- Clinical Documents Available: **~5.5K**



# Connectivity Efforts Today

Chesapeake Regional Information System for Our Patients

- Much of what HIEs do today is establishing connectivity (connectivity is defined here beyond the stricter technical definition)
  - Typically over VPNs or web services and mapping various types of HL7 messages (i.e. labs, radiology results, clinical reports) to meet a centrally defined specification (as defined by the HIE's technology vendors) so that they can be processed, routed, or made available for searching in the future.
- These efforts are achieving critical connections, making data available to providers, and establishing essential and foundational infrastructure
- It also proves to our stakeholders that they can work together without sacrificing business objectives or competitiveness in the marketplace



# Connectivity vs Interoperability

Chesapeake Regional Information System for Our Patients

- However, that connectivity is far from interoperability....
- Interoperability Challenge
  - Transport
  - Message
  - Semantic / Vocabulary
- HL7 is a valuable message standard but with very loose implementation guidelines causing lots of variation
- Inconsistent and patchy use of various vocabularies and clinical terms creates even deeper interoperability challenges



# Lab Results Delivery Example

Chesapeake Regional Information System for Our Patients

## Connectivity:

1. Technical connectivity must be established from lab to HIE and HIE to practice
2. HL7 ORU message must be transformed to inbound specification of HIE then outbound specification of destination EMR
3. Lab to EMR result compendiums must be developed to map result values into destination spec (lab calls potassium “K” but the EMR calls it “P”)
4. Patient matching issues must be addressed

## Interoperability:

- 1) Consistent connectivity pathway is utilized
- 2) Lab and EMR vendor adhere to the same HL7 specification and LOINC code their lab results
- 3) HIE routes results to the ordering provider
- 4) Enough patient data is include in the result message to map the result into the patient chart



# Changing Environment

Chesapeake Regional Information System for Our Patients

- National strategy has shifted focus from standards-based query capabilities to deployment of DIRECT capabilities (both from an HIE and EHR perspective).
- Stage 1 MU has resulted in a focus on EHR deployment and upgrades rather than exchange of data capabilities. Getting the attention of vendors to work on basic HL7 integration has been extremely difficult.
- In the face of a changing environment and with the benefit of our experience to date, ambulatory engagement strategies must serve the physician community well, must be scalable, and must be rational in the context of available resources.



# The New Reality and the (Potential) Power of a Universally Adopted Standard

Chesapeake Regional Information System for Our Patients

The following are new assumptions that we will be evaluating, as we consider new strategies around the DIRECT standard:

- The vendor community will continue to make only moderate progress in deployment of the IHE specification for data exchange
- ONC has embraced DIRECT as a clinical messaging standard
- DIRECT style messaging will be part of Certification and a component of Meaningful Use Stage 2

How should we consider the DIRECT standard as a pathway to beyond the simple use cases?





# CRISP as a HISP

Chesapeake Regional Information System for Our Patients

- Is there first mover advantage?
- Does offering HISP services represent a viable path towards broad ambulatory engagement?
- How does DIRECT impact our patient engagement strategy?
- How does DIRECT impact our overall Query strategy?

# Dr. Steven Stack

## Chair-Elect, Board of Directors, American Medical Association



# Connecting the Unconnected through HIT/HIE

Steven J. Stack, MD

Chair-elect, AMA Board of Trustees

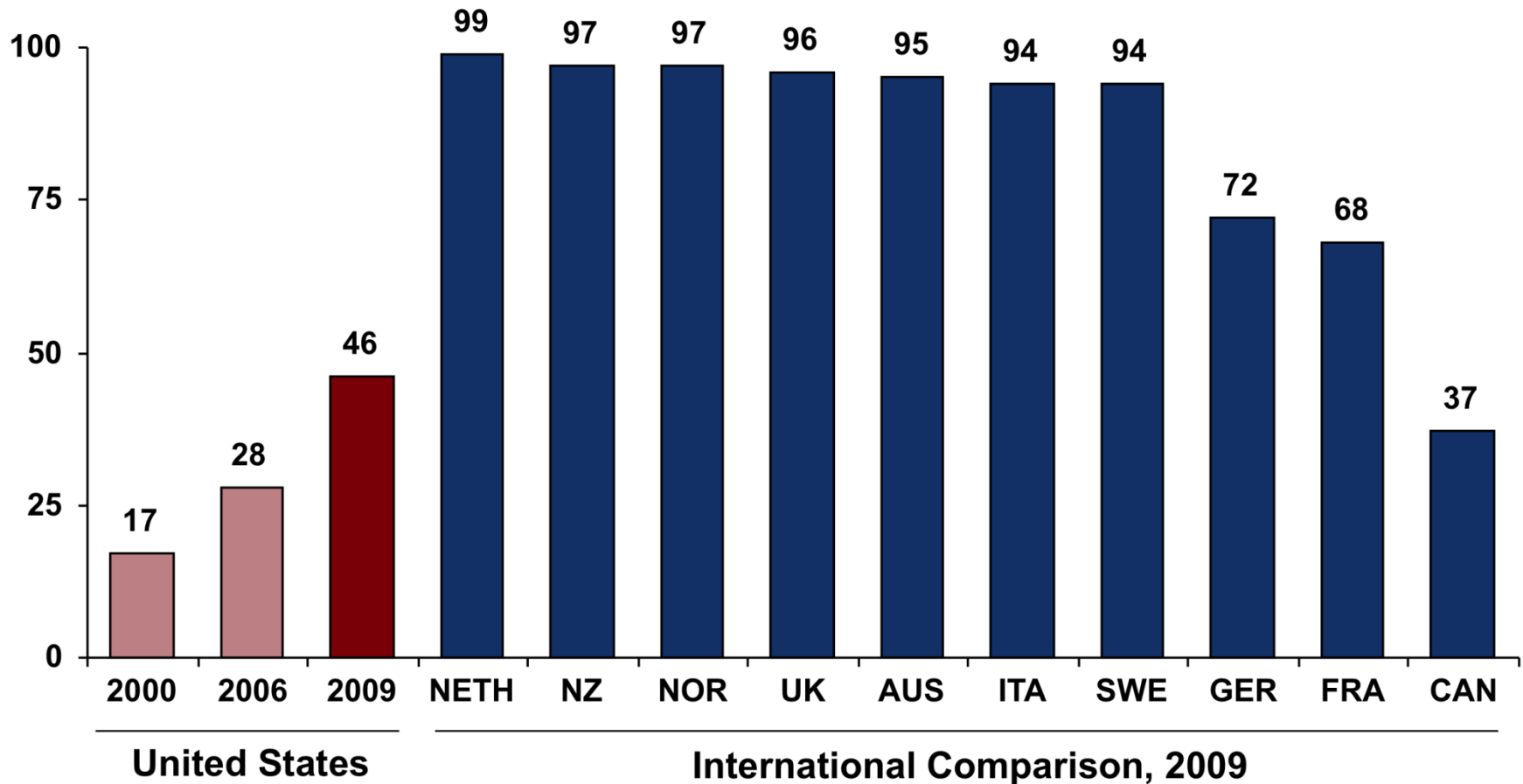
November 2, 2011



# Where is adoption now?

## Use of Electronic Medical Records

Percent of primary care physicians using electronic medical records

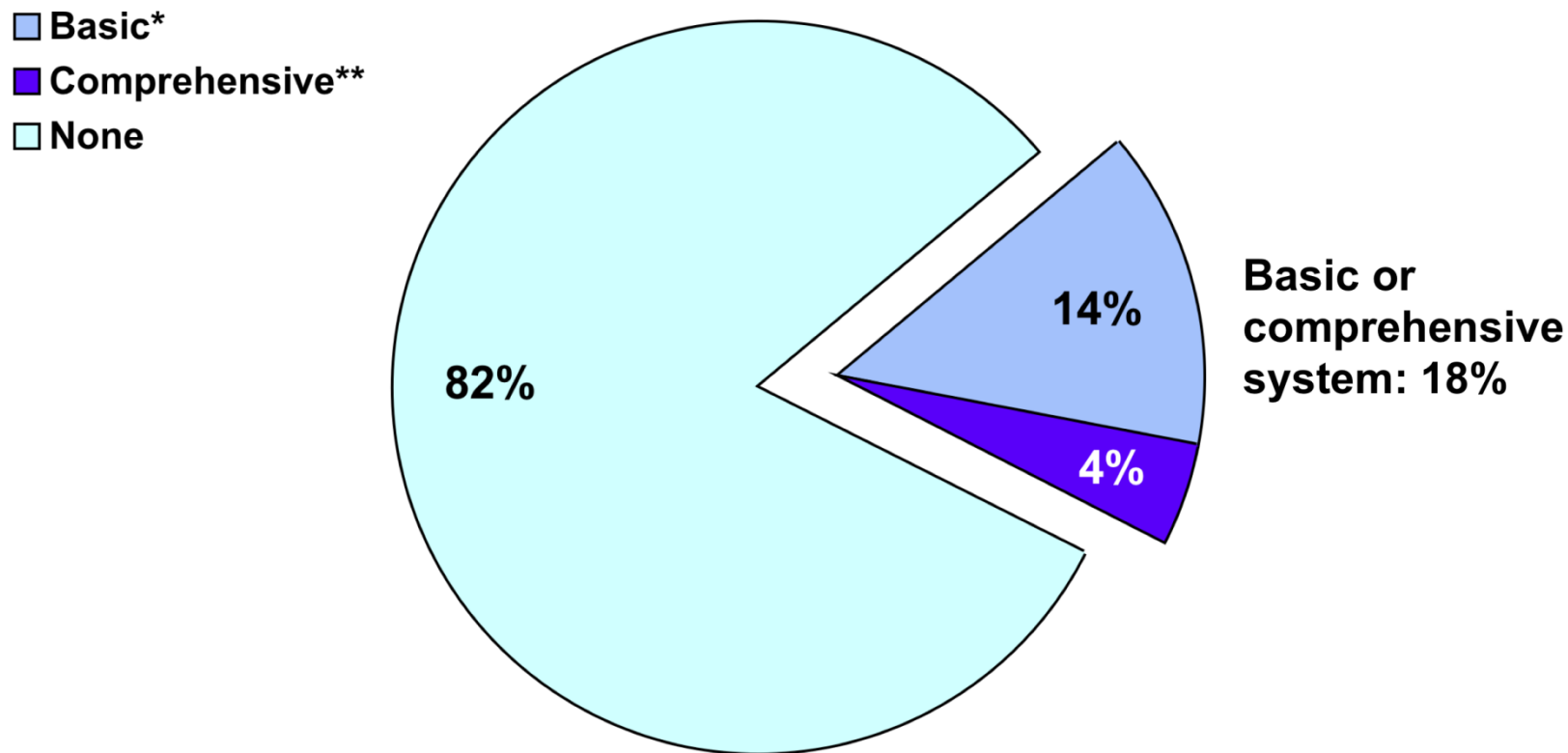


AUS=Australia; CAN=Canada; FRA=France; GER=Germany; ITA=Italy; NETH=Netherlands; NZ=New Zealand; NOR=Norway; SWE=Sweden; UK=United Kingdom.

Data: Commonwealth Fund International Health Policy Survey of Physicians.

## Adoption of Comprehensive and Basic Electronic Record Systems, 2009

Percent of hospitalized patients received care in hospitals with basic, comprehensive, or no electronic record system



\* Basic electronic record system defined as having 10 functions deployed in at least one hospital unit. See Appendix B for a description of electronic functionalities.

\*\* Comprehensive electronic record system defined as having 24 functions deployed in all hospital units.

Data: A. Jha, Harvard School of Public Health analysis of American Hospital Association Annual Survey Health Information Technology Supplement.



# Meaningful Use Program



# September 2011 EHR Incentive Program

## Active Registrations

REGISTRATIONS	September-11	YTD
Medicare Providers	16,900	88,399
Medicaid Providers	6,812	24,030
Medicaid/Medicare Hospitals	282	2,215
<b>Total</b>	<b>23,994</b>	<b>114,644</b>

PAYMENTS	September-11	YTD
Medicare-only Providers	\$28,715,329	\$75,472,845
Medicaid-only Providers	\$39,105,578	\$175,824,314
Medicaid/Medicare Hospitals (Medicare Pymt)	\$61,012,517	\$281,926,545
Medicaid/Medicare Hospitals (Medicaid Pymt)	\$70,077,233	\$338,944,994
<b>Total</b>	<b>\$ 198,910,657</b>	<b>\$ 872,168,698</b>

### Notes:

- Active Registrations = All Eligible Professional and Hospital registrations that have been fully completed
- Providers must successfully demonstrate Meaningful Use, and meet the allowable-charges threshold as well as all program requirements to be included in this report
- 59 Hospitals have been paid under both Medicare and Medicaid.
- Medicaid YTD Payment totals reflect different payment periods for different provider types. Such as Fiscal Year for Eligible hospitals and Calendar Year for Eligible professionals

States open for registration in September 2011 = Alabama, Alaska, Arizona, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Mississippi, Missouri, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Washington, West Virginia, Wisconsin

<http://www.cms.gov/EHRIncentivePrograms>







# September 2011 EHR Incentive Program

## Medicare Incentive Payments

	Sept 2011 Providers Paid	Sept 2011 Payments	YTD Providers Paid	YTD Payments
Eligible Professional	1,406	\$ 25,308,000	3,722	\$ 66,996,000
Medicare-only Hospital	3	\$ 3,407,329	8	\$ 8,476,845
Medicare/Medicaid Hospital (Medicare Payment)	30	\$ 61,012,517	150	\$ 281,926,545
<b>TOTAL</b>	<b>1,439</b>	<b>\$ 89,727,845</b>	<b>3,880</b>	<b>\$ 357,399,390</b>

YTD Eligible Professionals	
Specialty	Count
Internal Medicine	808
Family Practice	741
Cardiology	358
Podiatry	209
Gastroenterology	153
Urology	142
Nephrology	134
General Surgery	128
Orthopedic Surgeons	126
Neurology	108
Other	815

### NOTES:

• Providers must successfully demonstrate Meaningful Use, and meet the allowable-charges threshold as well as all program requirements to be included in this report

• 59 hospitals have received payments under both Medicare and Medicaid.

<http://www.cms.gov/EHRIncentivePrograms>





# September 2011 EHR Incentive Program

## Medicaid Incentive Payments

	Sept 2011 Providers Paid	Sept 2011 Payments	YTD Providers Paid	YTD Payments
Eligible Professional	1,428	\$29,990,850	6,361	\$133,790,065
Medicaid-only Hospital	4	\$9,114,728	19	\$42,034,249
Medicare/Medicaid Hospital (Medicaid Payment)	82	\$70,077,233	387	\$338,944,994
<b>TOTAL</b>	<b>1,514</b>	<b>\$109,182,811</b>	<b>6,767</b>	<b>\$514,769,308</b>

YTD Providers		
Specialty	Providers	Payment
Physician	4,801	\$ 100,640,065
Nurse Practitioner	1,137	\$ 24,161,250
Cert. Nurse- Midwife	99	\$ 2,125,000
Dentist	253	\$ 5,376,250
Physicians Assistant	70	\$ 1,487,500
Acute Care Hospitals	394	\$ 341,902,256
Children's Hospitals	13	\$ 39,076,988
<b>Total Medicaid</b>	<b>6,767</b>	<b>\$ 514,769,308</b>

### NOTES:

\* States disbursing payments through the month of September 2011 = Alabama, Alaska, Connecticut, Florida, Georgia, Indiana, Iowa, Kentucky, Louisiana, Michigan, Mississippi, Missouri, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, West Virginia, Wisconsin.

\* Year to Date totals reflect different payment periods for different provider types. Such as Fiscal Year for eligible hospitals and Calendar Year for eligible professionals

<http://www.cms.gov/EHRIncentivePrograms>



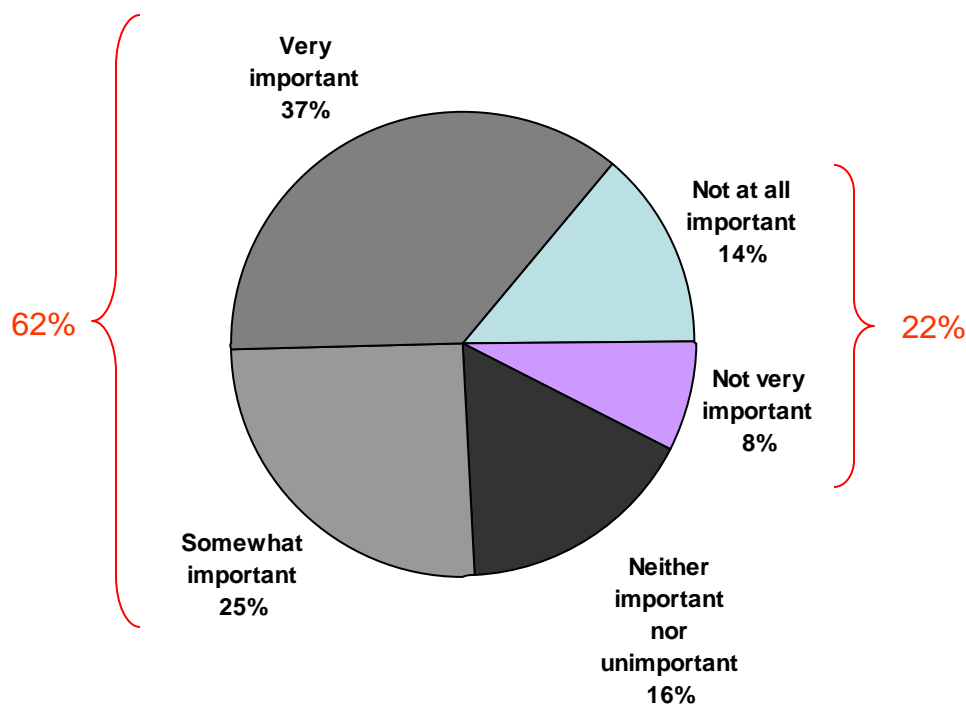


# Physician HIE Survey

## Survey Methodology:

A link to a 10-minute survey was emailed to a random sample of approximately 40,000 opted-in physicians from the AMA's Masterfile. After approximately 2 weeks in the field, the survey was closed on August 31, 2011. A total of 535 respondents who indicated they are practicing physicians completed the survey which equates to a 1% response rate. Results were analyzed using SPSS statistical software.

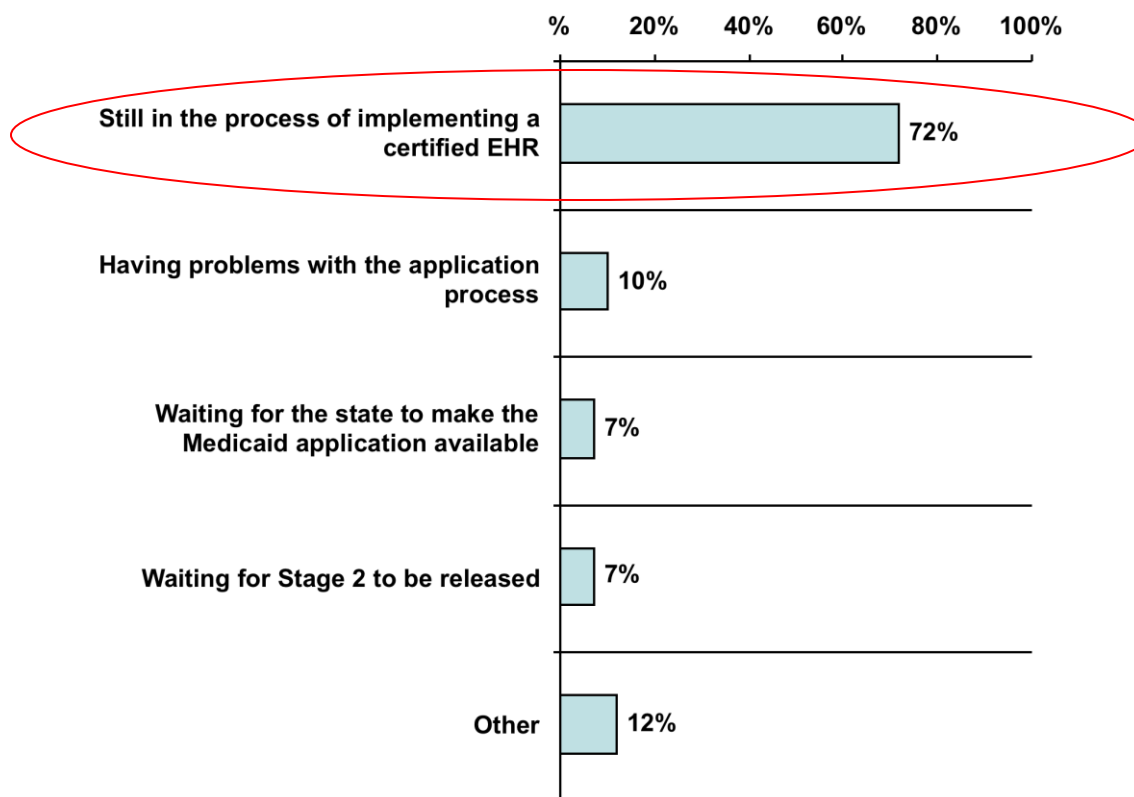
Almost two-thirds (62%) of practicing physicians say it is important that they be able to obtain funds through the Medicare/Medicaid EHR incentive program.



*Question: How important is it to you or to your practice to obtain incentive funds from the federal government through the Medicare/Medicaid EHR incentive programs in the next five years?*

N=535

Among those who have not yet applied for funds, the majority (72%) indicate it is because they are still in the process of implementing a certified EHR.

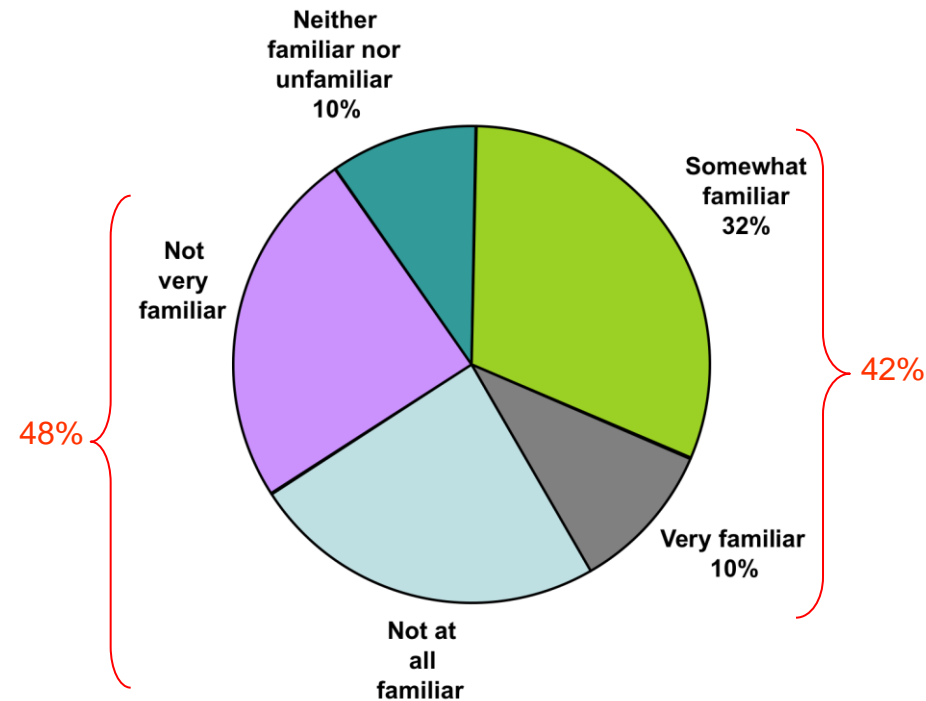


Question: Please indicate why you or your practice have not yet applied for incentive funds. (Select all that apply.)

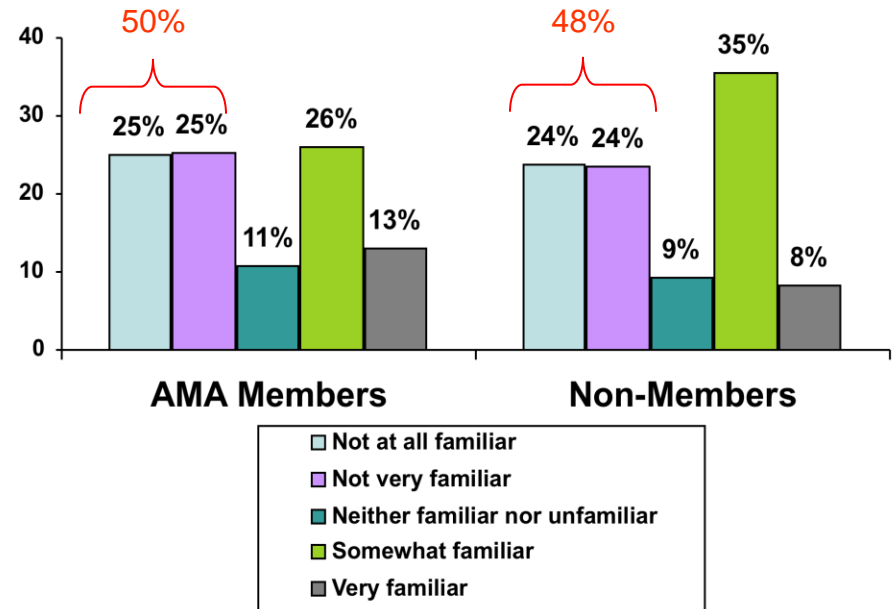
N=122

About half (48%) of practicing physicians say they are not familiar with HIEs in general, while 42% say they are familiar with them.

Total Respondents



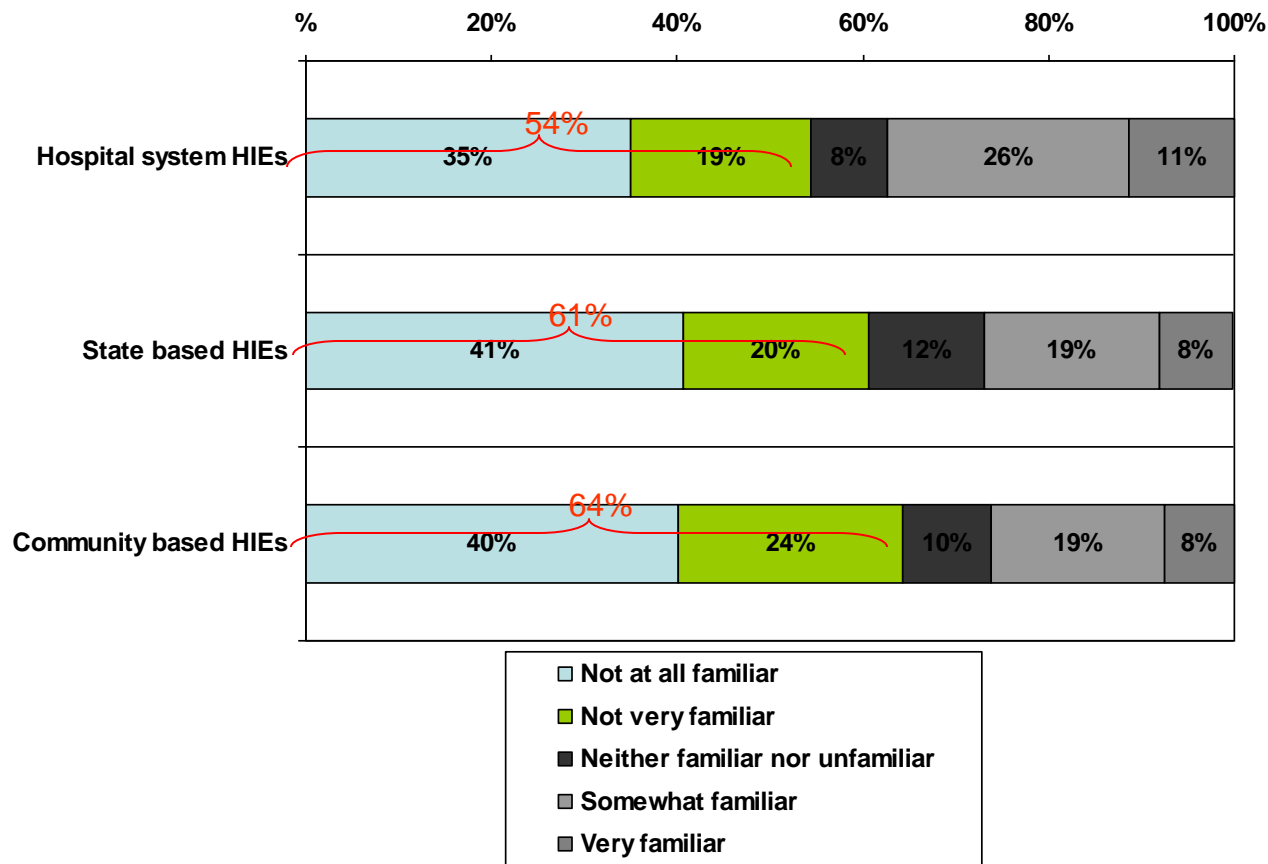
Members vs. Non-Members



Question: Overall, how familiar are you with what Health Information Exchanges (HIEs) are and what they do?

N=535

Most physicians also indicate they are not familiar with hospital system HIEs (54%), state based HIEs (61%) or community based HIEs (64%).



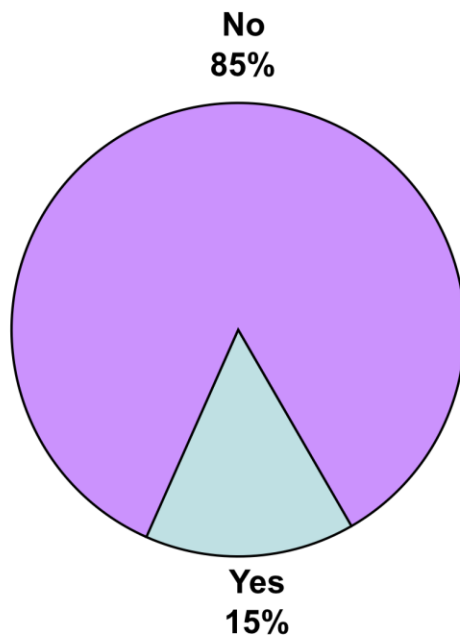
Question: How familiar are you with the following types of Health Information Exchanges?

N=535

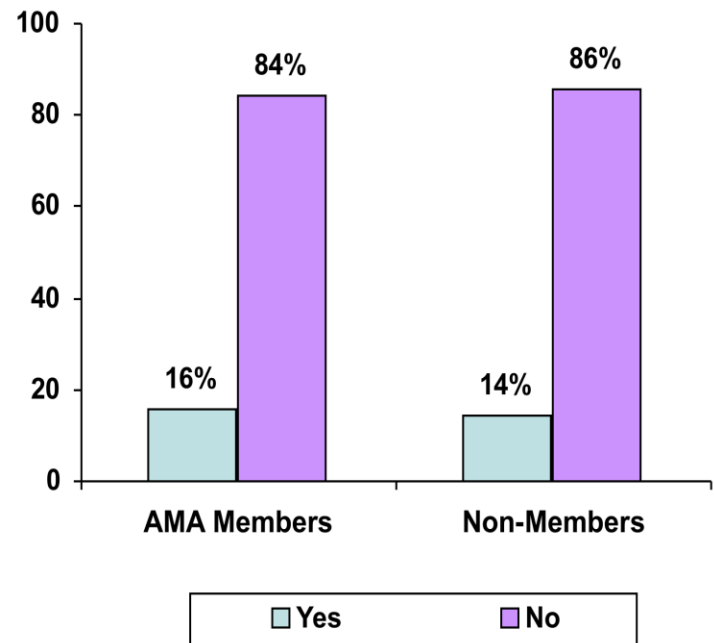


The majority of physicians (85%) indicate they have not participated in an HIE in the last year. AMA members are neither more nor less likely than non-members to have participated.

Total Respondents



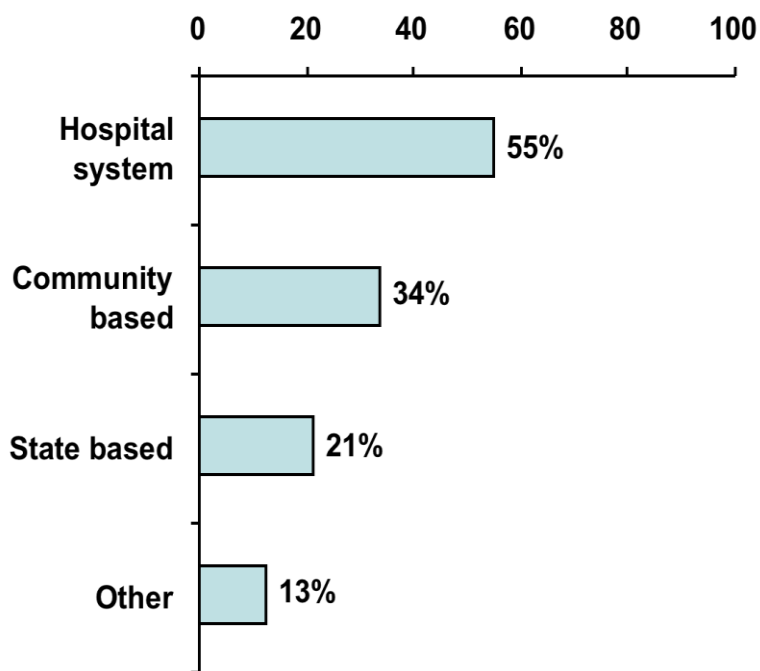
Members vs. Non-Members



Question: In the last year, have you participated in an HIE?

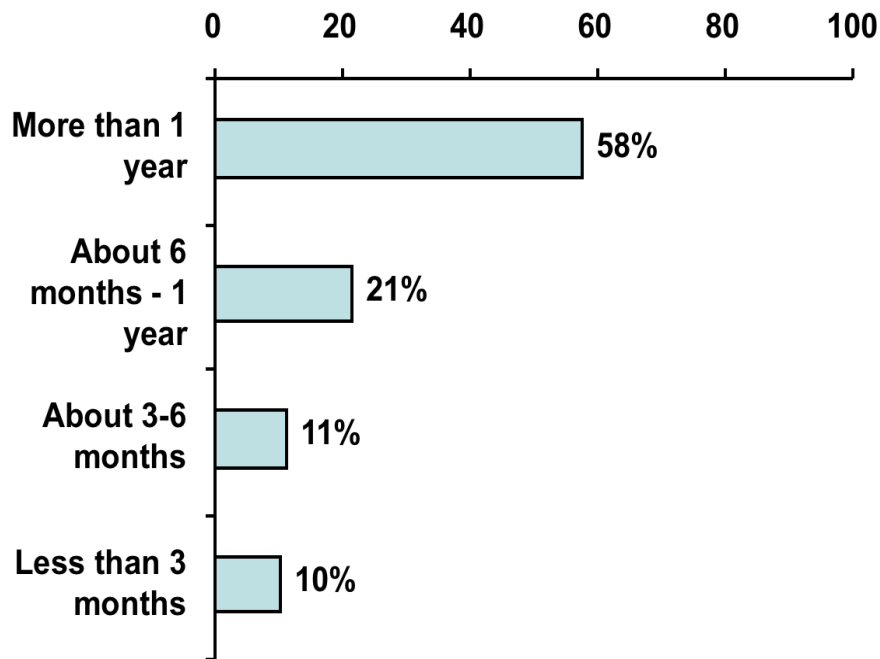
N=535

While half (55%) of HIE physicians participated in a hospital-system HIE in the last year, another third (34%) participated in a community-based HIE. About 58% have participated for longer than one year.



Question: What type of HIE have you participated in?

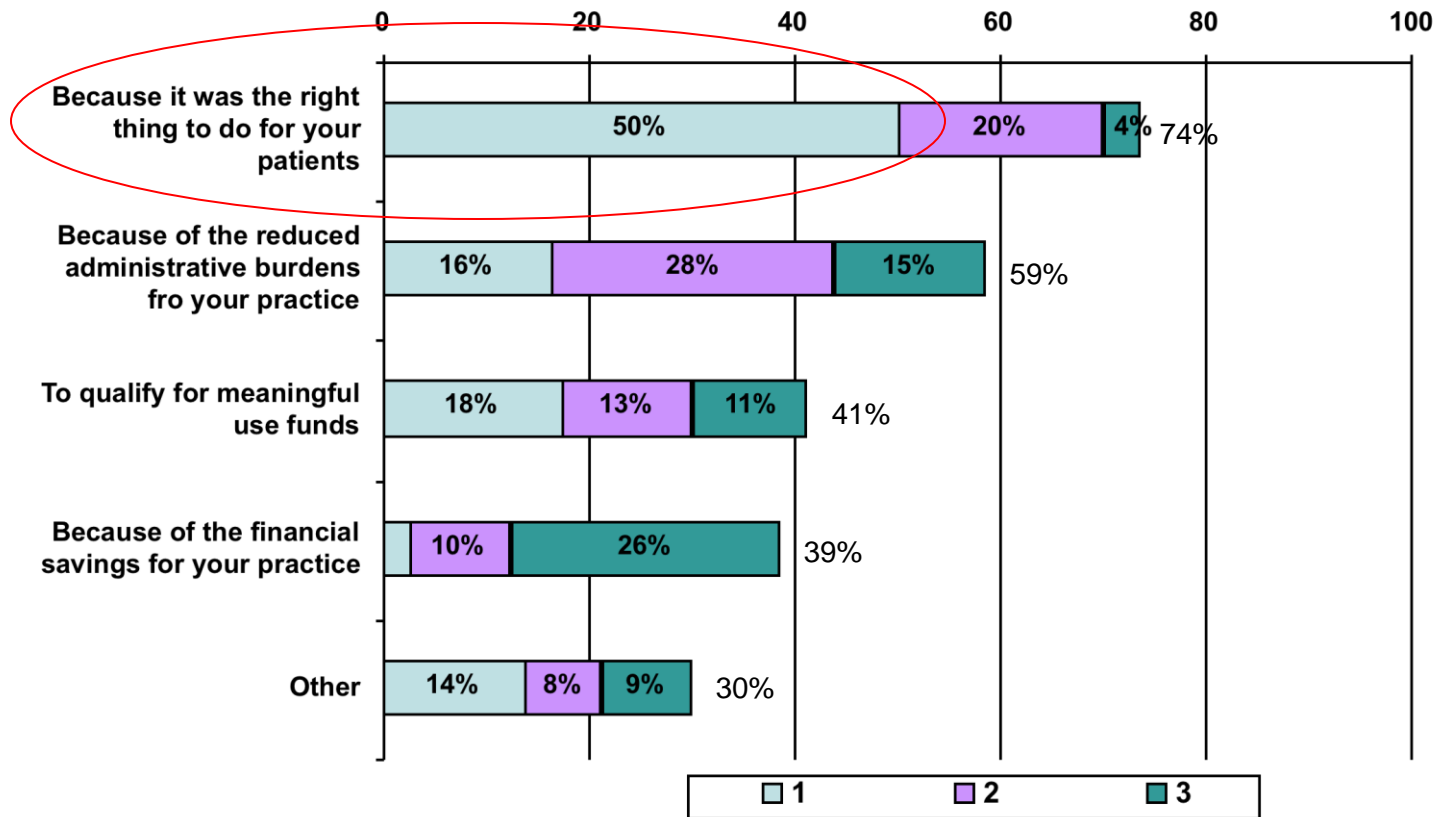
N=80



Question: How long have you been participating in an HIE?

N=80

Physicians chose to join HIEs primarily because they believed it was the right thing to do for their patients (50%).



Question: What are the main reasons why you decided to participate in an HIE? Rank your top 3 reasons by typing a 1 next to the most pertinent reason, a 2 next to the second most pertinent reason, and a 3 next to the third most pertinent reason.

N=80

## Other reasons why physicians decided to participate in an HIE include.....

### Had to do it - no choice

- *That is how the Veterans Administration works*
- *Our group mandates it*
- *Because my health system did*
- *Facilitated by the hospital*
- *It is up to the hospital*
- *Government BS*
- *Military uses it*
- *Need to get it done*

### Because of the benefits to patients

- *To be able to get information about patients*
- *It is essential for patient management within a specific hospital system*
- *Right thing to do for clinical colleagues and medical community*
- *More easily spot drug-seeking behavior*
- *We have a patient registration system*

### Administrative Reasons

- *Saves time*
- *Less paper*
- *Timing is right financially and administratively*
- *I don't think I could practice without it*

### To try the new technology

- *It's new and innovative*
- *Experiment*
- *Unbiased objective evaluation of IT products and services*

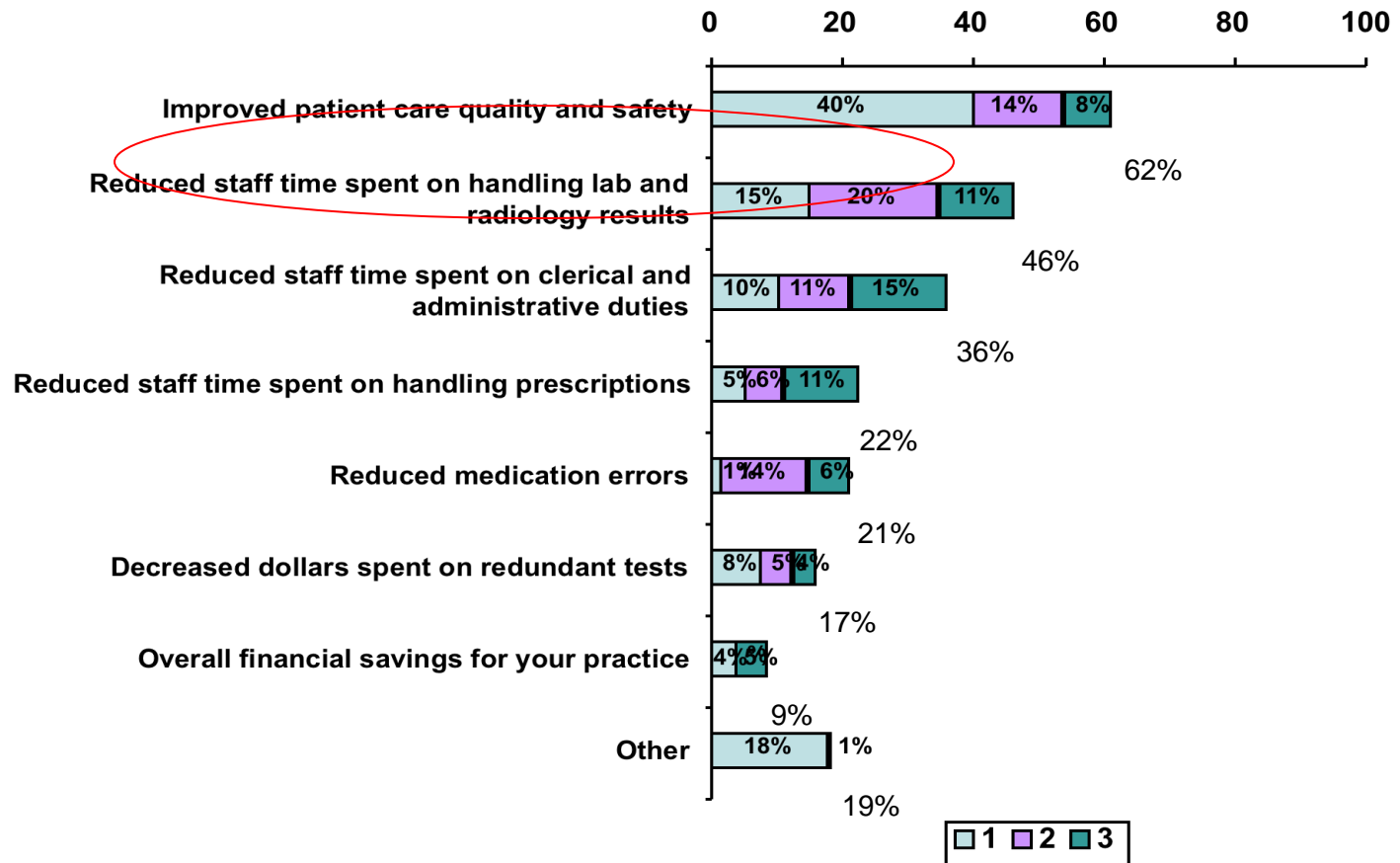
### Other

- *Poor hand writing skills*

Question: What are the main reasons why you decided to participate in an HIE? Rank your top 3 reasons by typing a 1 next to the most pertinent reason, a 2 next to the second most pertinent reason, and a 3 next to the third most pertinent reason.

N=21 Open Ended Comments

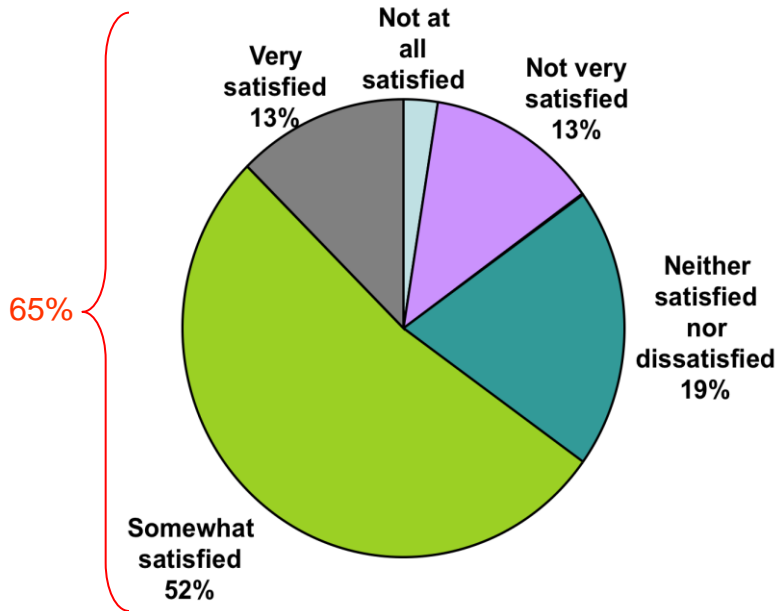
Forty percent (40%) of physicians agree improved patient care quality and safety has been the #1 benefit of their HIE participation.



Question: What are the main benefits that you have experienced during your participation in the HIE? Rank your top 3 benefits by typing a 1 next to the most pertinent benefit, a 2 next to the second most pertinent benefit, and a 3 next to the third most pertinent benefit.

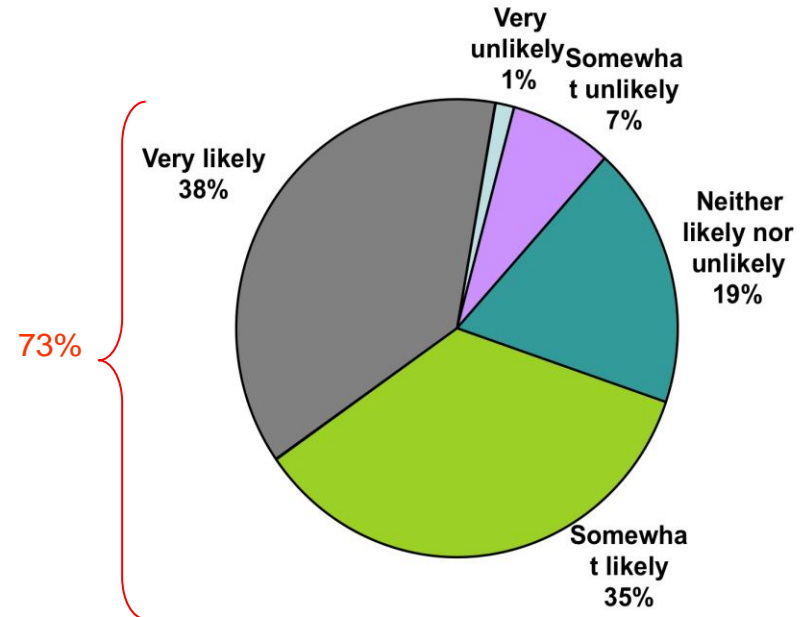
N=80

HIE participants are generally satisfied (65%) with their HIE, and they are likely to recommend participation to other physicians (73%).



Question: Overall, how satisfied have you been with your participation in an HIE?

N=80



Question: How likely are you to recommend participation in an HIE to another physician?

N=80

# Reasons why some physicians indicate they are dissatisfied with their HIE participation include.....

## Technology Issues

- *Local hospital is part of a nation-wide Catholic system. The process to remote into their system takes one through multiple log-in screens (3, I believe) that often time out. The difficulty is not on my end but is traffic-related on their end. It can take 15-20 minutes to successfully log-in. What physician do you know who has 15-20 minutes to successfully log into a computer? Their process impacts the ability to take care of patients in a timely manner. This causes inefficiency instead of creating efficiency.*
- *Cumbersome. It would be better if it were simply integrated into our health information system. It is clunky to have to go into another system and not have it show up in our main system.*
- *Poor transfer of information, downtime of the IT service.*

## Time Consuming

- *It takes time away from my practice.*
- *It is too cumbersome to use and slows down patient management in most cases.*
- *Much more work for the medical providers as we are now forced into less productive secretarial duties with order entry, chart construction and editing.*

## Data Issues

- *Poorly populated. There is not high quality data in our HIE.*
- *There are a lot of problems with the data. It seems we are frequently having to send in dates of when well child exams were done. The HIE will often have no records of these visits even when the patient is up to date.*
- *Low overall participation*

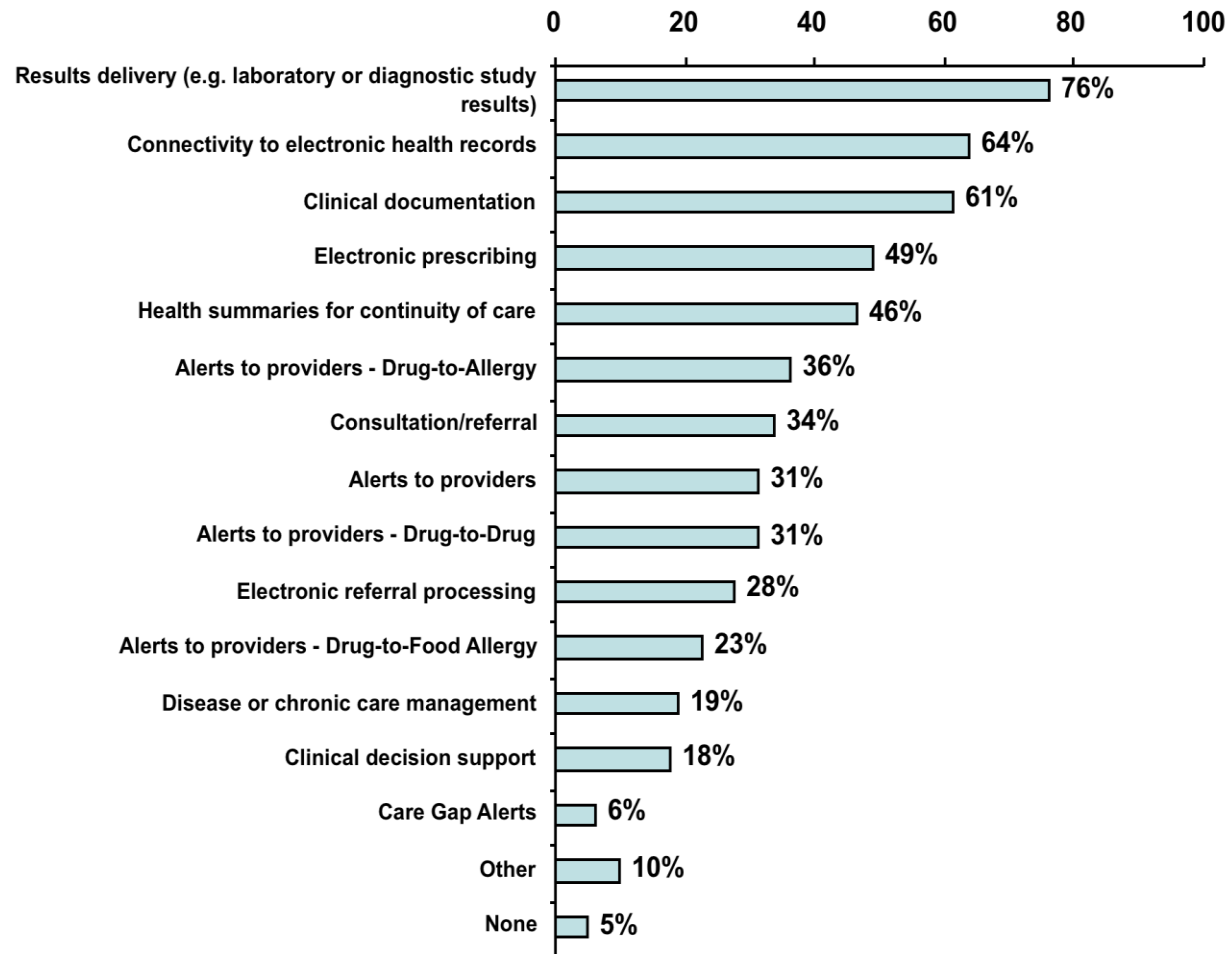
## Other

- *Disorganized*
- *Pay is too low.*
- *All of these systems are BS. Government and AMA-driven to make money and farm patient and physician data. This data will be used against patients and doctors.*

Q. Overall, how satisfied have you been with your participation in an HIE?

N=9 Open Ended Comments

The clinical functions that most HIE participants can access are results delivery (76%), connectivity to health records (64%) and clinical documentation (61%).



Question: Which of the following clinical functions are currently available through your HIE? (Select all that apply.)

N=80

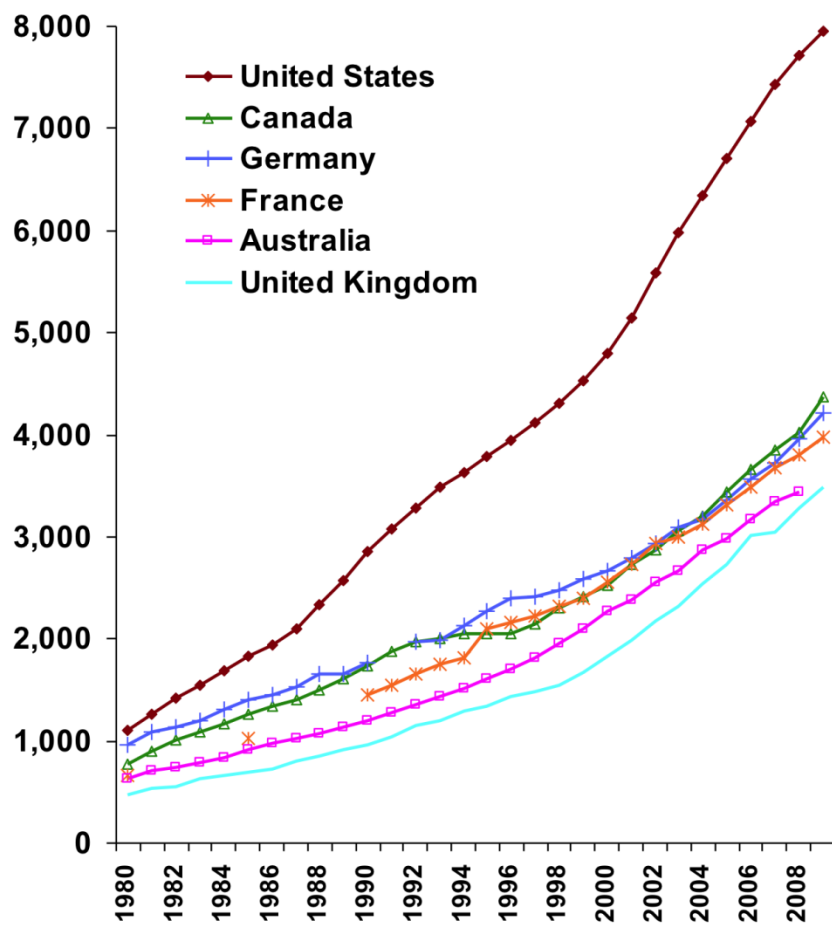




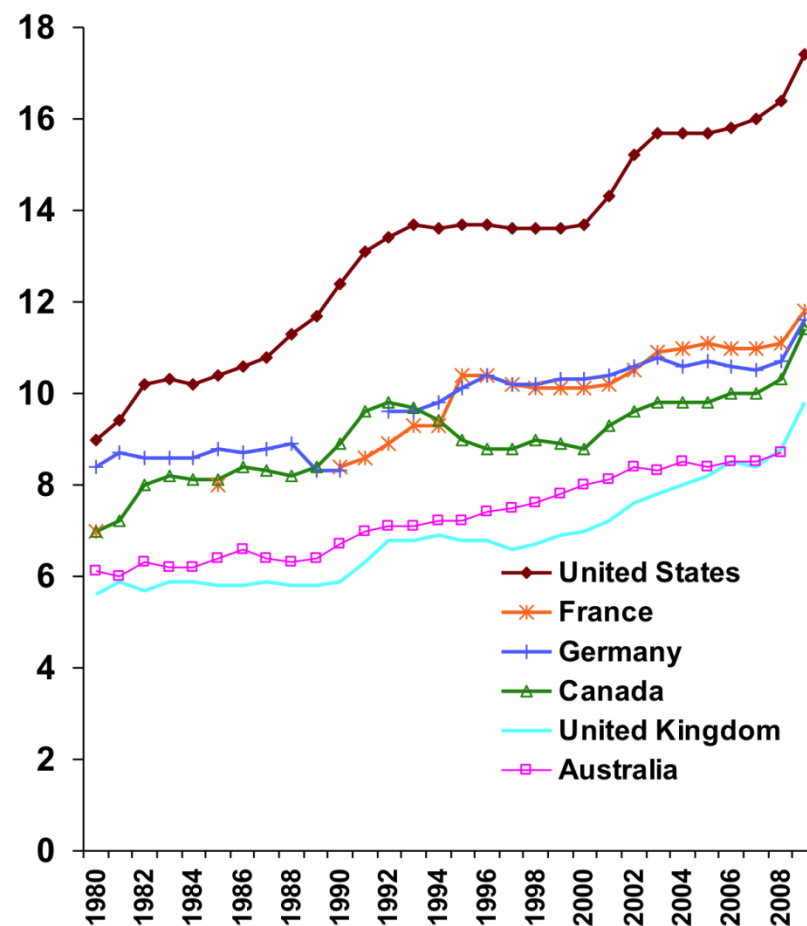
# Why HIE?

# International Comparison of Spending on Health, 1980–2009

Average spending on health per capita (\$US PPP\*)



Total expenditures on health as percent of GDP

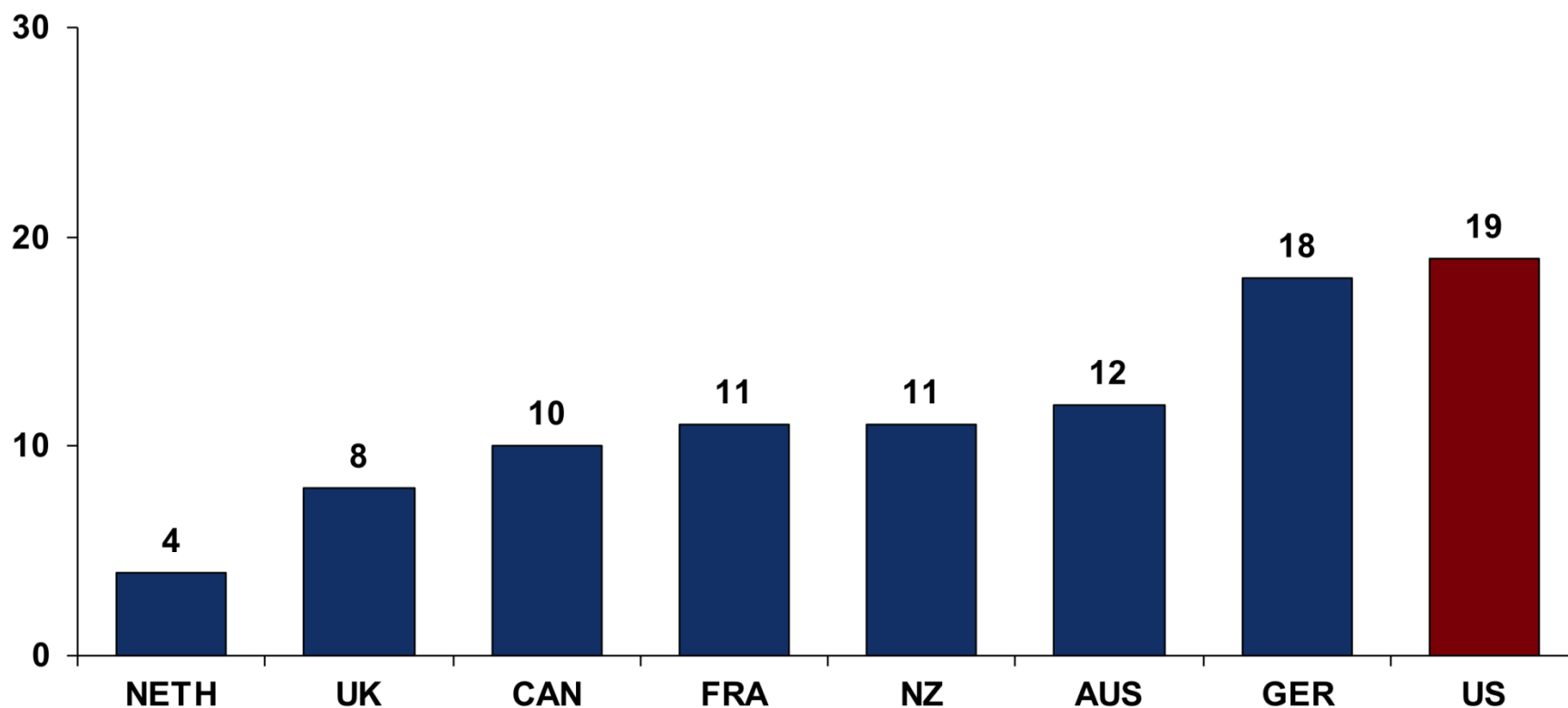


\* PPP=Purchasing Power Parity.

Data: OECD Health Data 2011 (database), version 6/2011.

## Duplicate Medical Tests, Among Sicker Adults, 2008

Percent of adults reported that doctor ordered test that had already been done in past two years

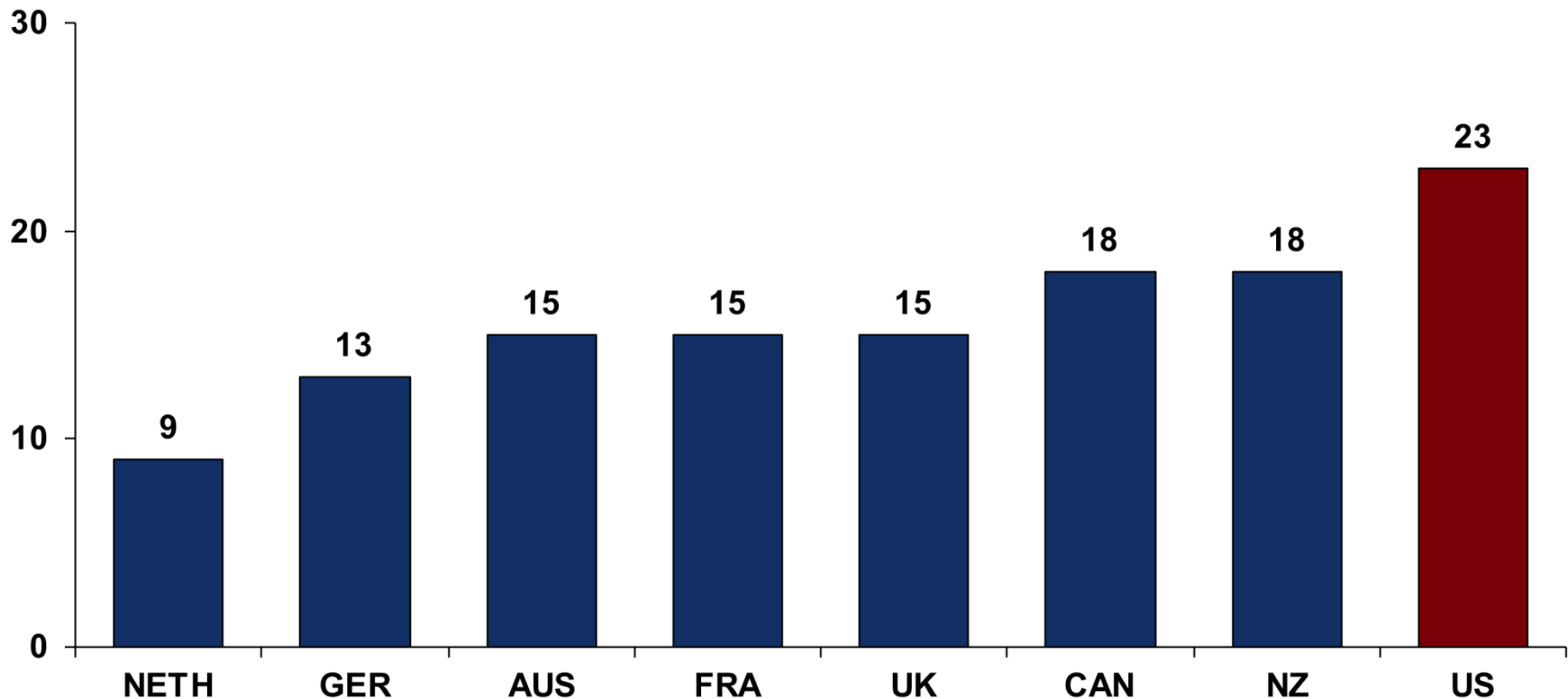


Sicker adults met at least one of the following criteria: health is fair or poor; serious illness in past two years; or was hospitalized or had major surgery in past two years. AUS=Australia; CAN=Canada; FRA=France; GER=Germany; NETH=Netherlands; NZ=New Zealand; UK=United Kingdom; US=United States.

Data: 2008 Commonwealth Fund International Health Policy Survey.

## Test Results or Medical Records Not Available at Time of Appointment, Among Sicker Adults, 2008

Percent of adults reported test results or records were not available at time of appointment in past two years



Sicker adults met at least one of the following criteria: health is fair or poor; serious illness in past two years; or was hospitalized or had major surgery in past two years. AUS=Australia; CAN=Canada; FRA=France; GER=Germany; NETH=Netherlands; NZ=New Zealand; UK=United Kingdom; US=United States.

Data: 2008 Commonwealth Fund International Health Policy Survey.



# How to spur HIE use?



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# Resources

- AMA Health IT: <http://www.ama-assn.org/go/hit>
- AMA Advocacy: <http://www.ama-assn.org/go/advocacy>
- Solutions for Managing Your Practice: <http://www.ama-assn.org/ama/pub/physician-resources/solutions-managing-your-practice.page?>
- Online Health IT Modules: [http://www.ama-cmeonline.com/health\\_IT/](http://www.ama-cmeonline.com/health_IT/)
- ONC Health IT: <http://www.healthit.gov/>





# Dr. Steven Waldren

Director, Center for Health IT,  
American Academy of Family  
Physicians



# Health Information Exchange: Last Mile Providers

November 2, 2011

Steven E. Waldren MD, MS



AMERICAN ACADEMY OF  
FAMILY PHYSICIANS

STRONG MEDICINE FOR AMERICA

# Welcome to the Practice's World

Health Reform

Comprehensive Primary Care

Accountable Care Organizations

Certified EHR technology

E-prescribing Incentive

ICD-10

Meaningful Use

Patient Empowerment

Quality Reporting

Care Coordination

Looming SGR Cuts

HIE

Seeing patients

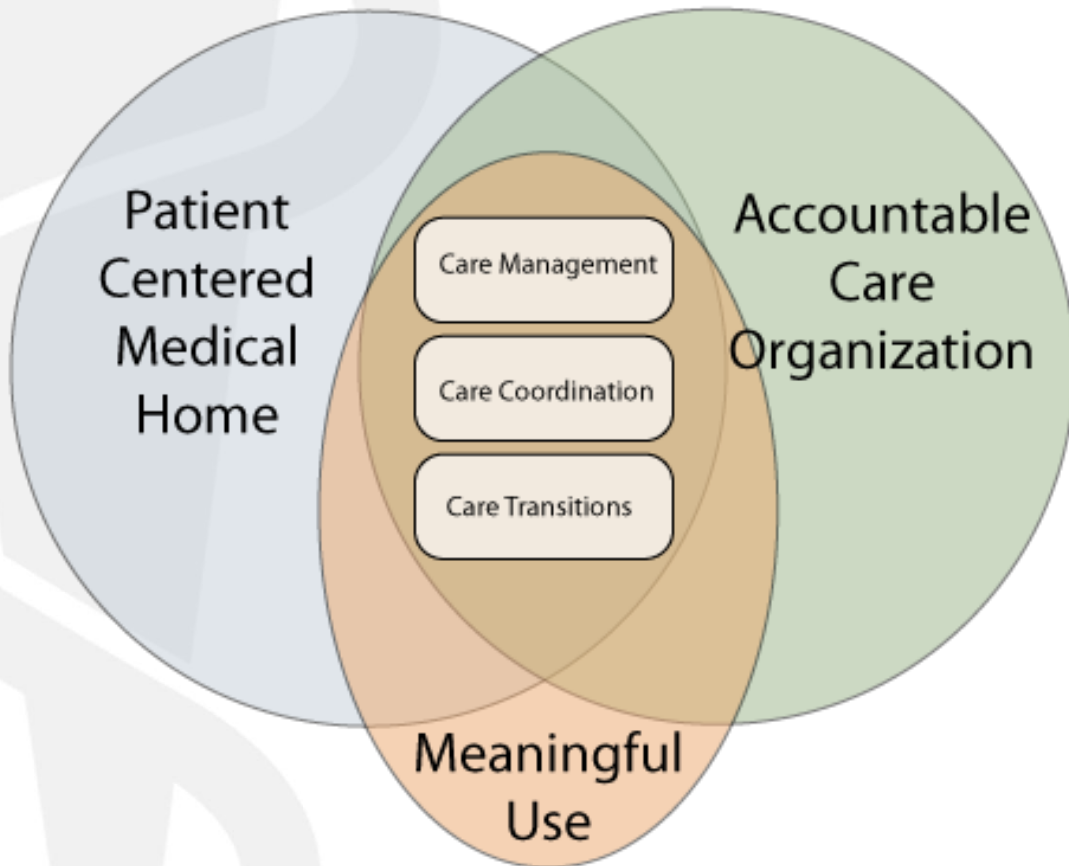
Patient-centered medical home

Pay for Performance

Weak Economy

Private practice vs. Employed

# Why Connect?



- Access to data
- Increase efficiency
- Improved quality
- Ensure safety



# Barriers

- Fragmented exchange
- Workflow integration
- Technical
  - Lack of connectivity
  - Burden of technology support
  - Dependence on EHR vendor
- Cost

# Fragmented Exchange

## Metcalf's Law

The value of a telecommunications network is proportional to the square of the number of connected users

- Connect as many users as possible
- Focus on high volume data sources
- Focus on high value providers
- Leverage existing networks

# Workflow Integration

## Workflow

The sequence of steps to be performed to accomplish a desired task

- Focus on the practice not the provider
- Integrate into existing applications
- Identify key steps where HIE can assist and streamline
- Eliminate side steps



# Technical

Connectivity

Support

Vendor Dependence

- Connectivity is a prerequisite to exchange
- Decrease the technology administration burden
- Provide basic network administration support
- Identity vendor market share to focus efforts
- Identity providers planning to purchase EHRs

# Cost



- Understand where it is a barrier and not a crutch
- Create solutions that assist providers in achieving other goals
- Bags of money will not help nor will free products – must provide value

# AAFP Physicians Direct

- An approach to address barriers
- Partnered with Surescripts Clinical Interoperability Network
- Simple, low-cost Web portal
- Built on Direct and other standards
- Integration with EHRs
- Ability to “send to anyone”

[www.aafp.org/physiciansdirect](http://www.aafp.org/physiciansdirect)

# Health Information Exchange: Last Mile Providers

November 2, 2011

Steven E. Waldren MD, MS

[swaldren@aafp.org](mailto:swaldren@aafp.org)



AMERICAN ACADEMY OF  
FAMILY PHYSICIANS

STRONG MEDICINE FOR AMERICA

# Questions

# Final Thoughts



# Thank You to Our Speakers

- Dr. Tom Stevenson, Chief Medical Officer, Covisint
- Scott Afzal, Program Director, HIE, CRISP
- Dr. Steven Stack, Chair-Elect, Board of Trustees, American Medical Association
- Dr. Steven Waldren, Director, Center for Health IT, American Academy of Family Physicians



# Slides/Recording for Sale

## ■ Slides and recording of webinar

- Members can access slides and replays of any webinar for free from eHI's store
- Non-members can purchase access to any webinar replay for \$25.00
- eHI Store
  - <http://www.ehealthinitiative.org/store.html>



# Take Advantage of eHI Resources

## ■ Upcoming Conferences

- 2012 eHI Annual Conference – Cancer, Diabetes and Heart Disease: Improving Care Through eHealth
  - January 11 and 12, 2012 - Washington, D.C.

## ■ Upcoming Webinars

- *Connecting Healthcare Communities: Health Information Exchange Across Pennsylvania, featuring KeyHIE*
  - Wednesday, November 9, 2011

## ■ Reports and Directories

- Vendor Report
- List of HIEs and Selected Vendors
- Sustainability Report





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