Patient Centered Care – The Real Purpose of Meaningful Use

Key Health Alliance

Regional Extension Assistance Center for HIT

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College of Saint Scholastica
June 10, 2014

Conflict of Interest

- Dr. Kleeberg is the Clinical Director for the Minnesota - North Dakota Regional Extension Assistance Center for HIT (REACH) – An ONC REC
- Dr Kleeberg also serves on the Physician Advisory Board for Elsevier
- No other conflict of interest

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Objectives

- Know why there is urgency to implement EHRs
- Be able to identify reasons why patient engagement is important
- Understand how effective patient engagement leads to better health and better health care
- Be able to identify the ways meaningful use fosters patient engagement
- Leave with a vision of how to begin engaging and empowering the lives in your care

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Outline

- **Review Why**
- Evidence for EHRs
- Meaningful use driving adoption
- The big deal about patient engagement
- Meaningful use and patient engagement
- So how do we do this?

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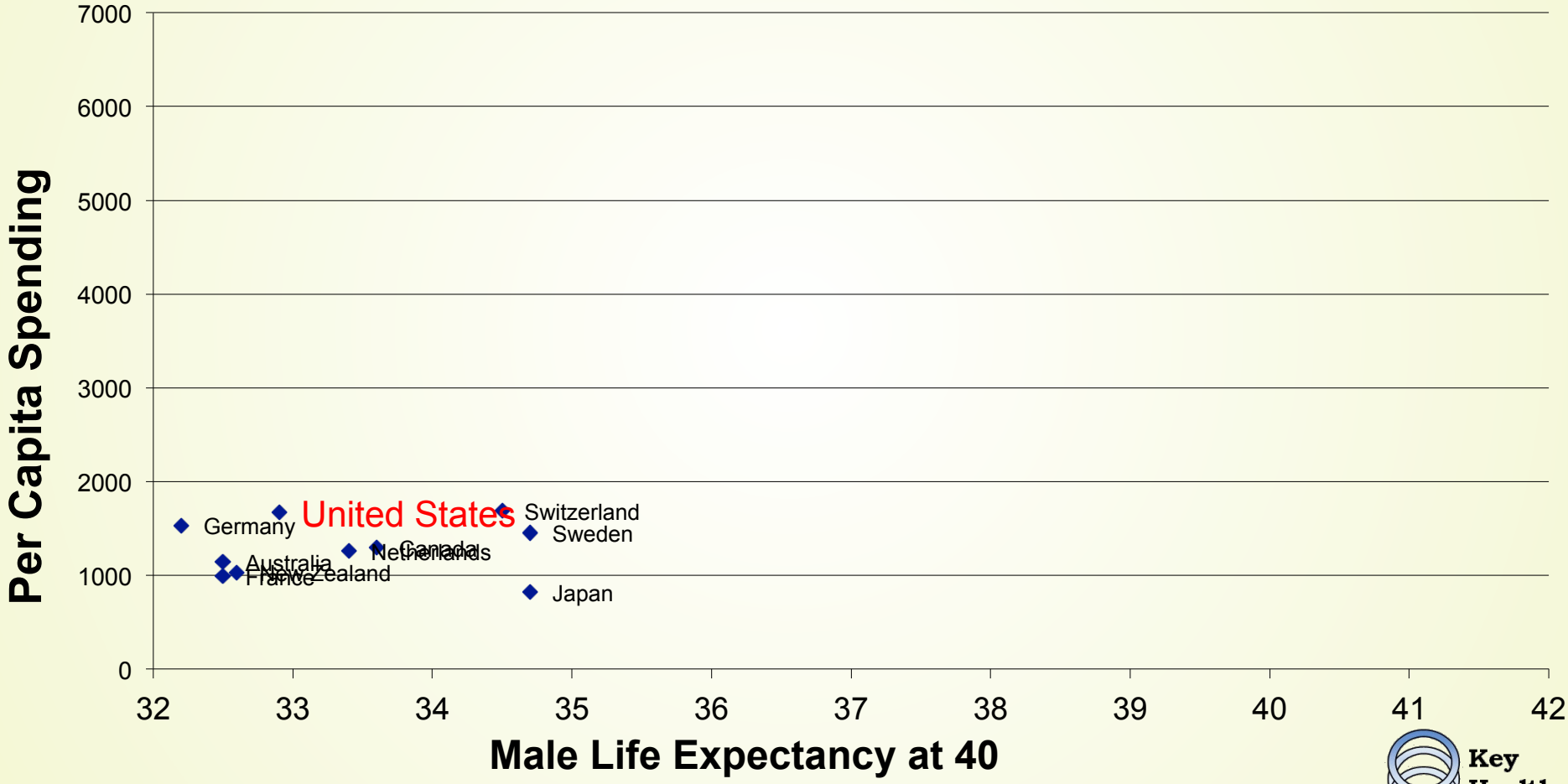
Spending and Life Expectancy 1976



Adapted from a slide by Sherry Glied, Wagner School, NYU

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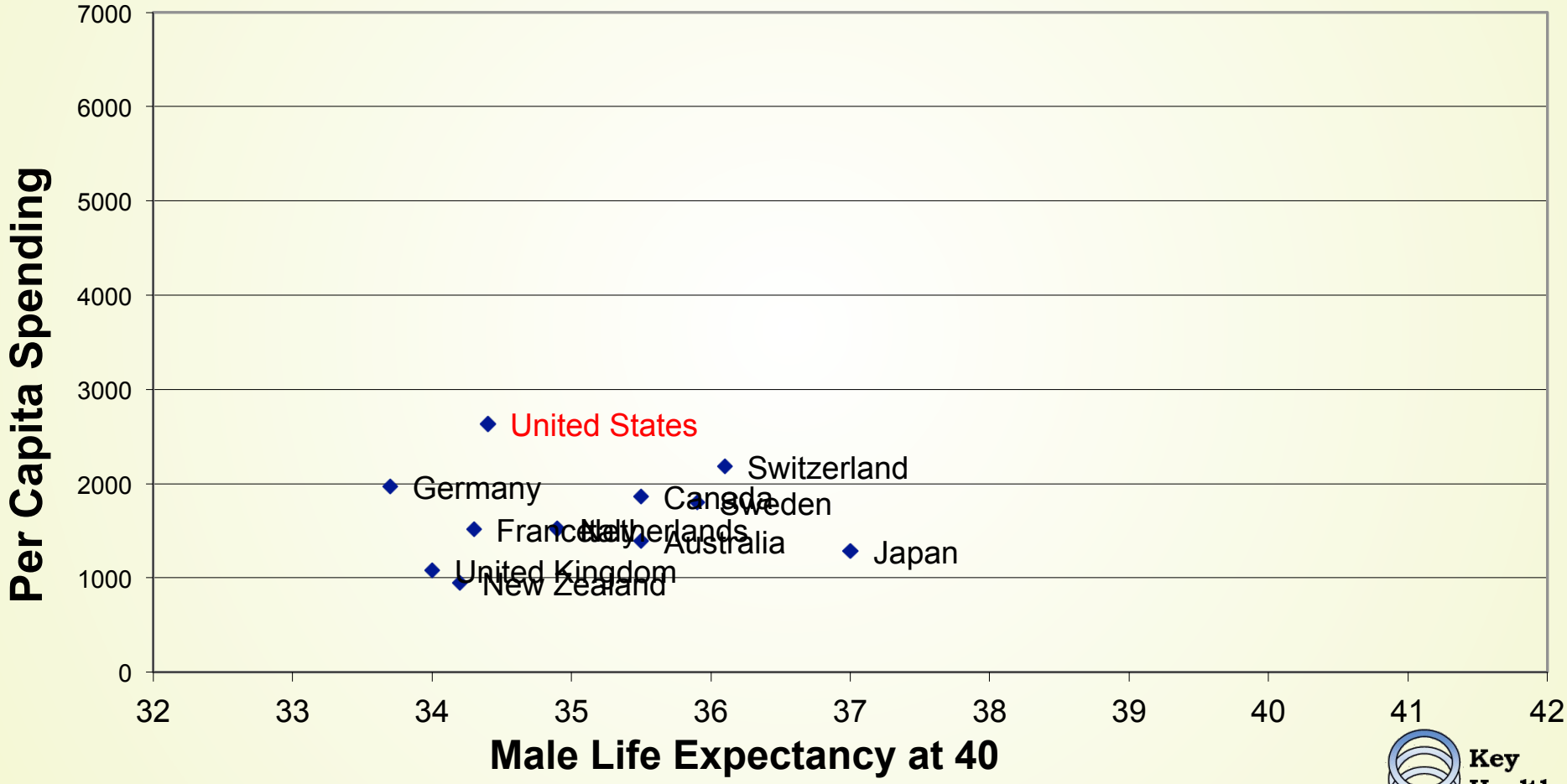
Spending and Life Expectancy 1986



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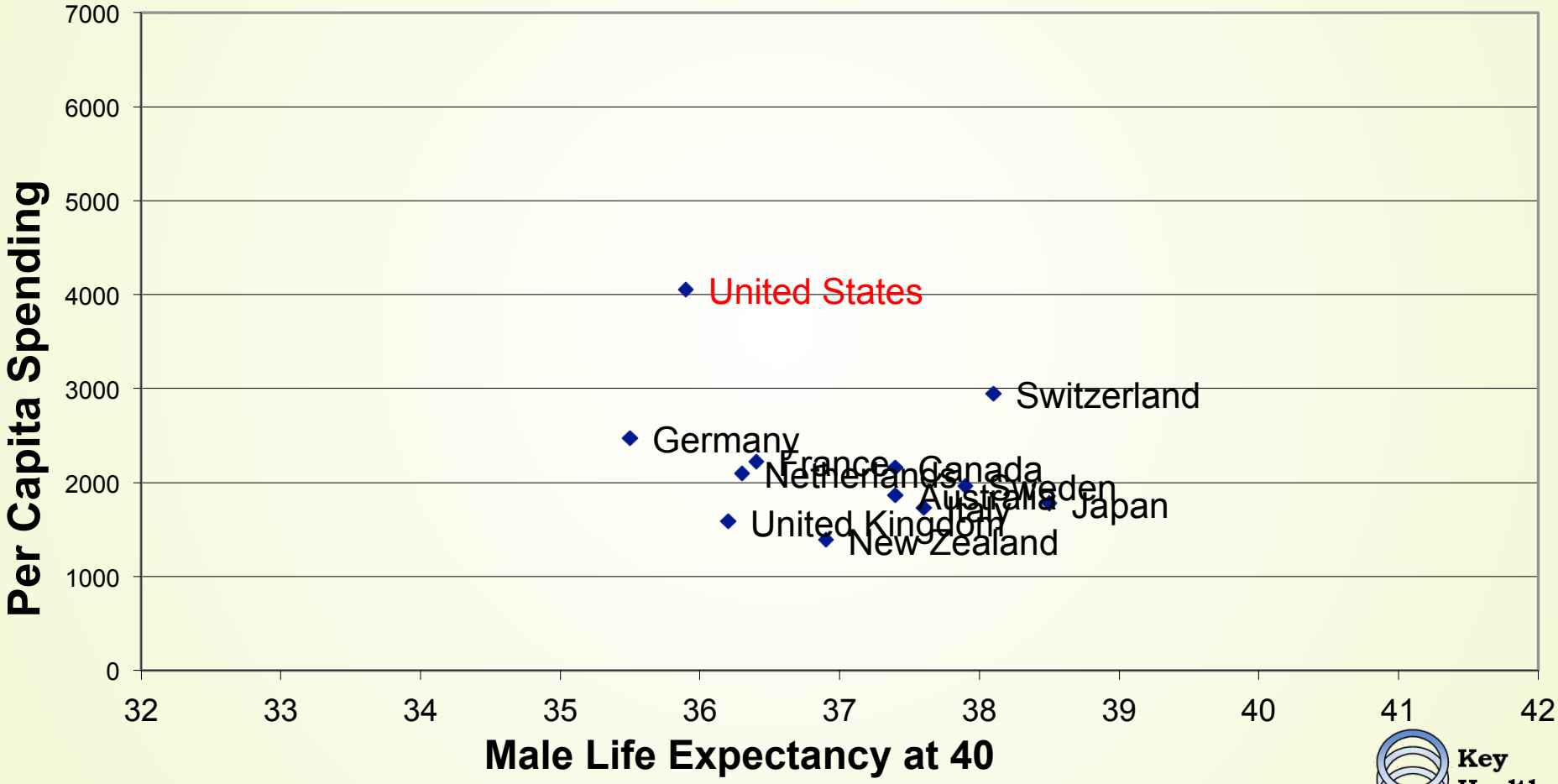
Spending and Life Expectancy 1996



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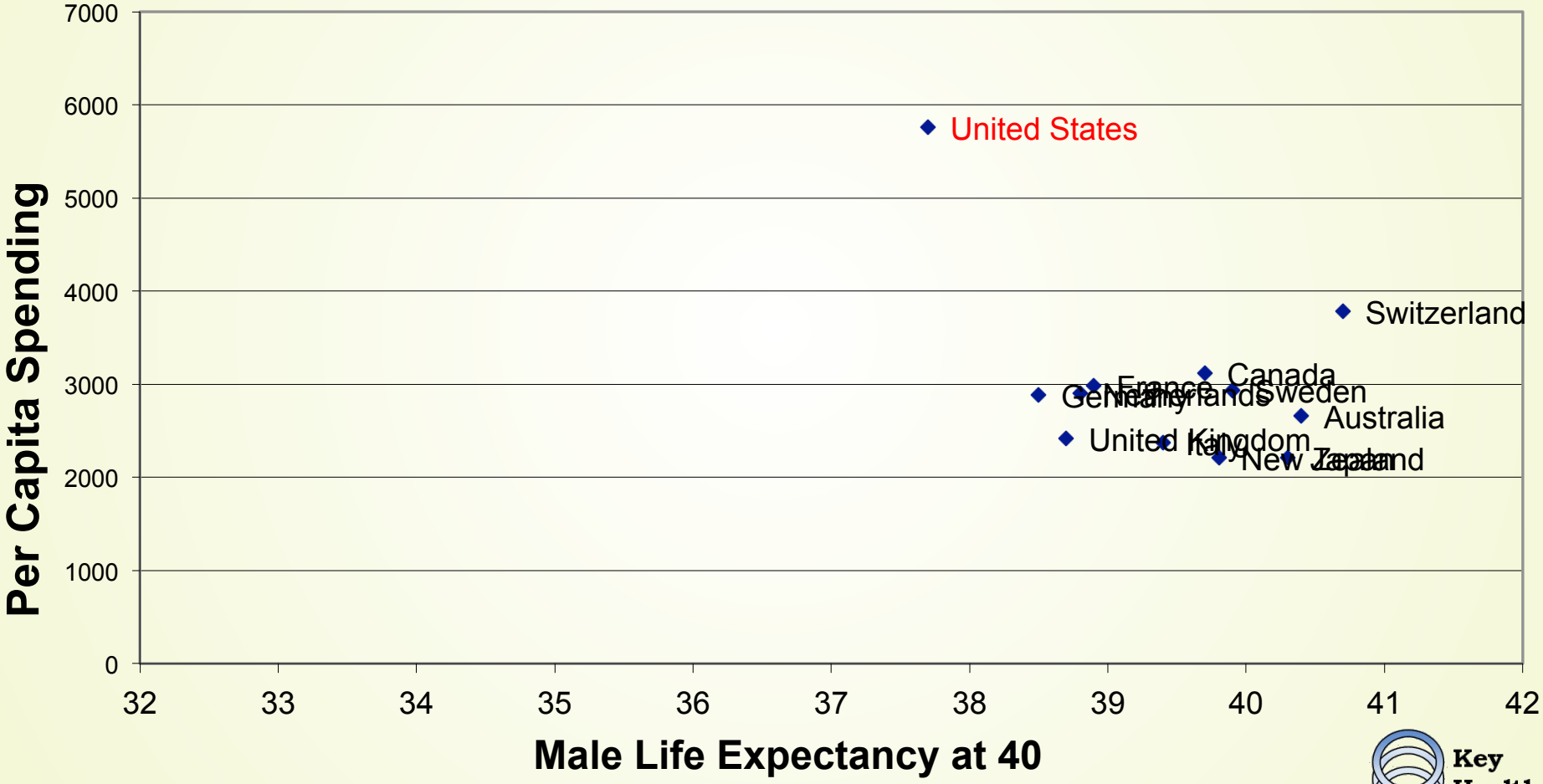
Spending and Life Expectancy 2006



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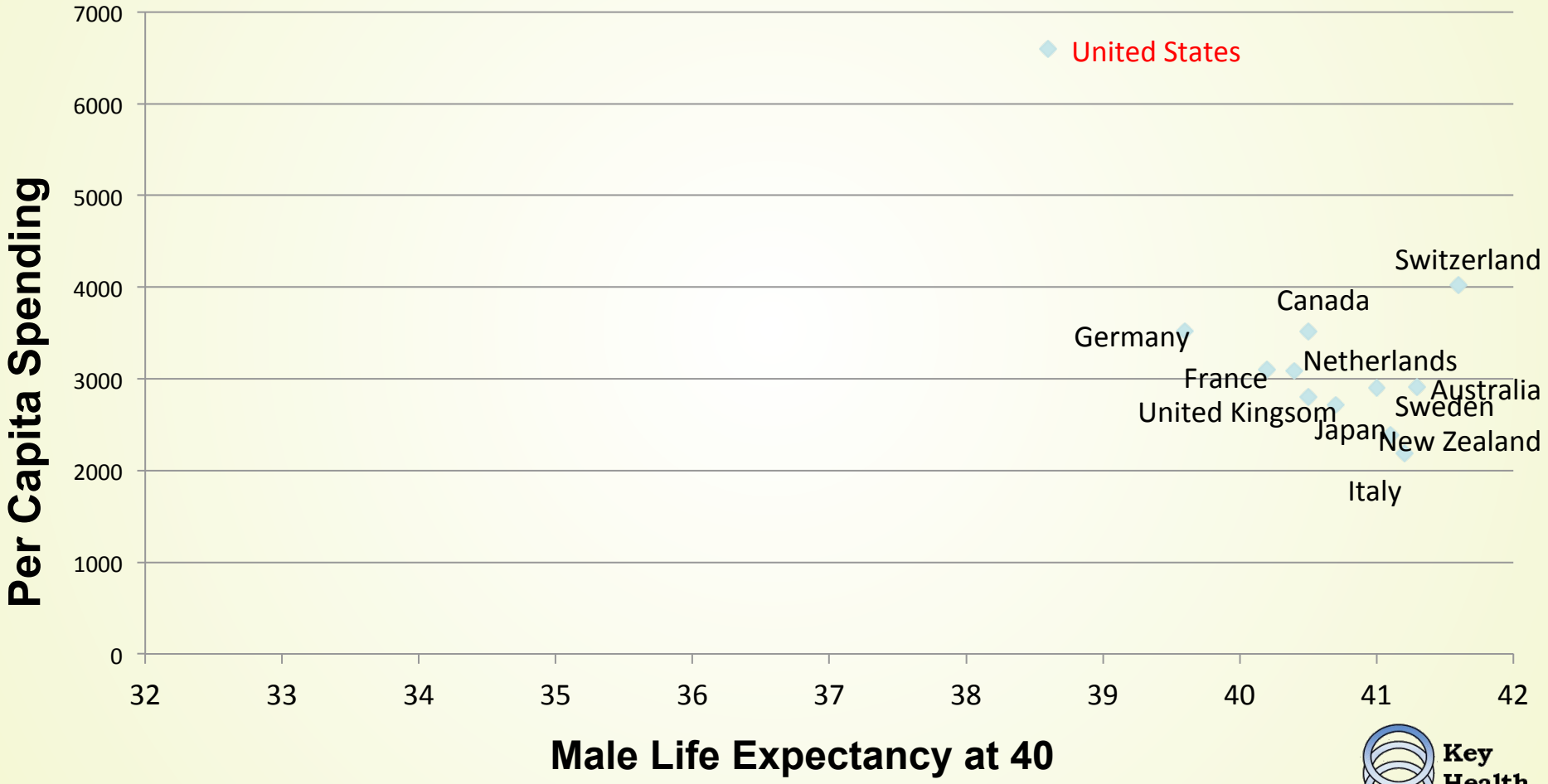
Spending and Life Expectancy 2011



Modeled after slides by Sherry Glied, Wagner School, NYU

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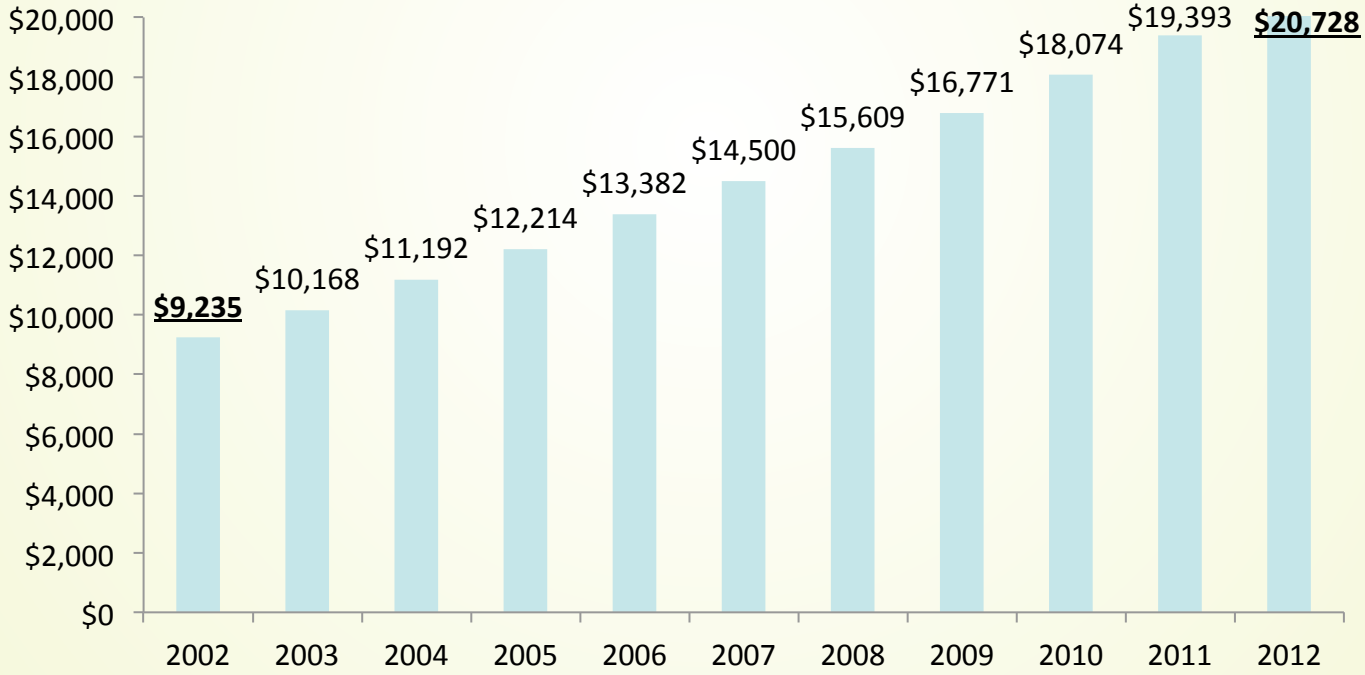
Medical costs for a family of four >doubled in 10 years

The proportion of U.S. workers covered by employer health insurance fell from 69% in 2010 to 61% in 2012. Covered workers are also facing more complex CDHP financial arrangements along with clinical decision making responsibilities.



Source: Milliman Medical Index, 2004-2012

Slide courtesy of Jan Oldenburg, Oldenburg Consulting and Mary Griskewicz, HIMSS

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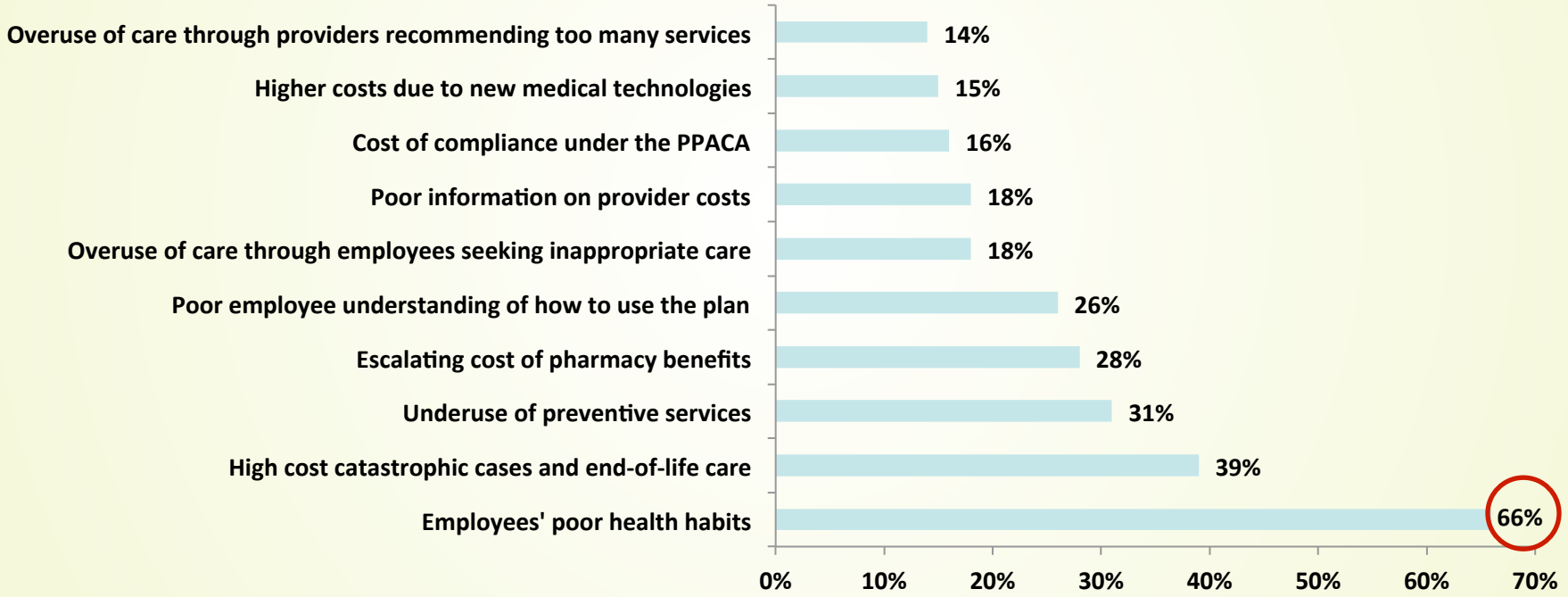
Growing incentives for wellness at the workplace: Addressing workers' bad health habits is #1 job for employer health benefit programs

Employers are allocating resources to wellness programs and population health management that targets both biometrics (e.g., lowering BMI) and specific health conditions such as diabetes and heart disease.



Source: The Road Ahead: Shaping Health Care Strategy in a Post-Reform Environment, Towers Watson and National Business Group on Health, March 2011

Slide courtesy of Jan Oldenburg, Oldenburg Consulting and Mary Griskewicz, HIMSS

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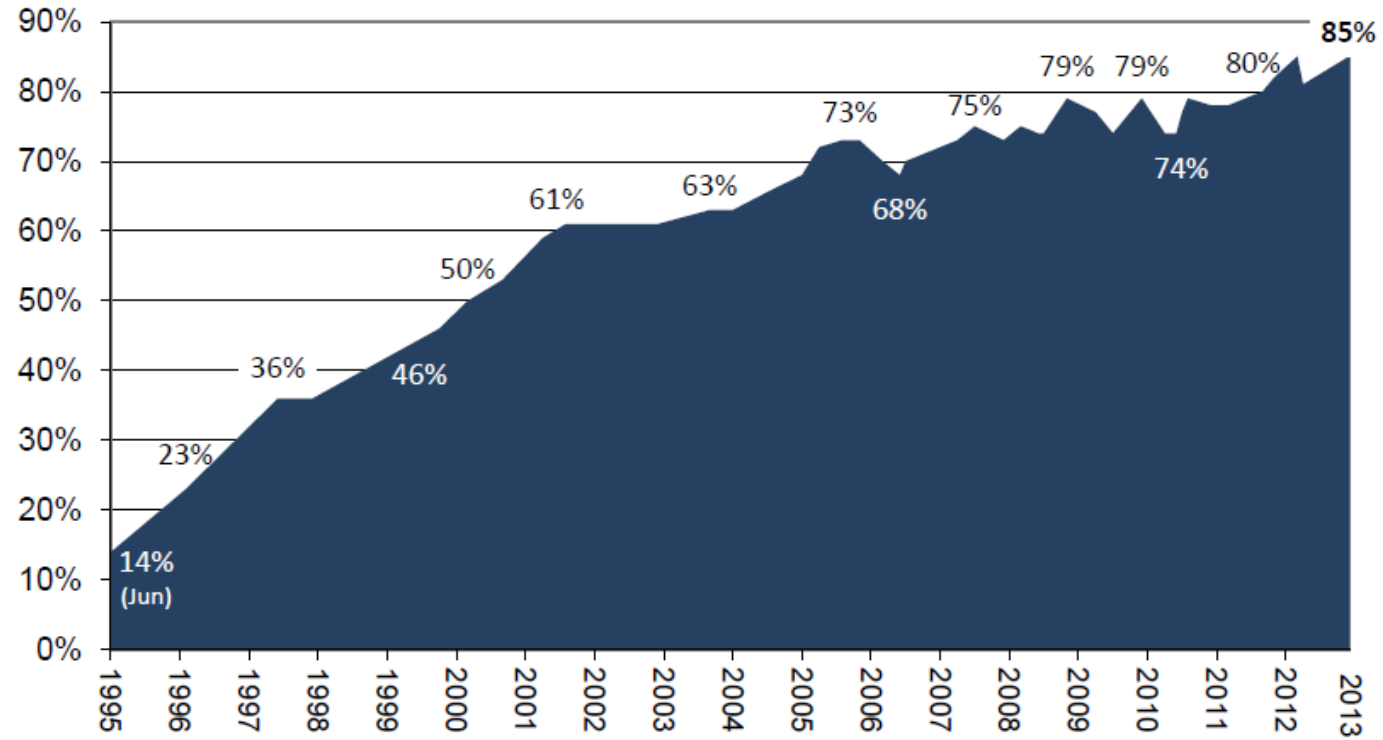
Internet Adoption 1993-2013

% of American adults (age 18+) who use the internet, over time. As of May 2013, 85% of adults use the internet.



Source: Pew Research Surveys, 1995-May 2013.

More: http://pewinternet.org/Trend-Data/Internet-Adoption.aspx

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Who is Using the Internet?

All Americans 18+ (n=2,252)	85%
Men (n=1029)	86%
Women (n=1,223)	85%
Race/ethnicity	
White, Non-Hispanic (n=1,571)	85%
Black, Non-Hispanic (n=252)	85%
Hispanic (Eng and Spanish-speaking (n=249)	76%
Age	
18-29 (n=404)	97%
30-49 (n=577)	93%
50-64 (n=641)	83%
65+ (n=570)	56%

Education Attainment	
No high school diploma (n=168)	59%
High school grad (n=630)	78%
Some college (n=588)	91%
College + (n=834)	96%
Household Income	
Less than $30,000 (n=168)	59%
$30,000 - $49,999 (n=374)	88%
$50,000 - $74,999 (n=298)	94%
$75,000+ (n=582)	96%
Urbanity	
Urban (n=763)	85%
Suburban (n=1,037)	86%
Rural (n=450)	80%

Source: Pew Research Center's Internet & American Life Project Spring Tracking Survey, April 17 – May 19, 2013. N=2,252 adults ages 18+. Interviews were conducted in English and Spanish and on landline and cell phones. The margin of error for results based on all adults is +/- 2.3 percentage points.

Source: http://pewinternet.org/Reports/2013/Non-internet-users/Summary-of-Findings.aspx

Patients Want More Accessible, Coordinated, Well-Informed Care

Percent reporting it is very important/important that:	Total very important or important
You have easy access to your own medical records	94%
All your doctors have easy access to your medical records	96%
You have information about the quality of care provided by different doctors/ hospitals	95%

Source: Commonwealth Fund Survey of Public Views of the U.S. Health Care System, 2008.

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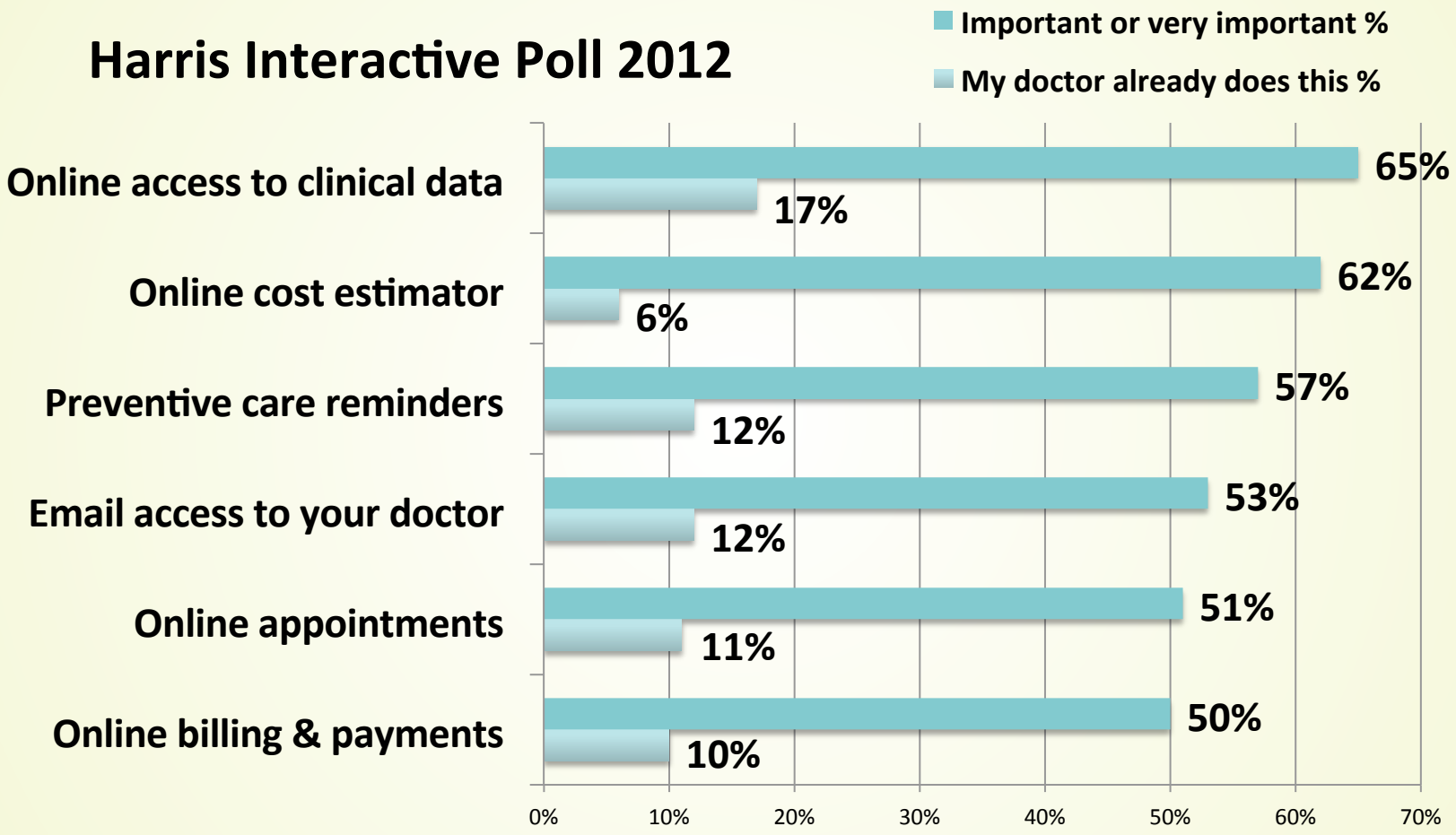
Our needs are not being met



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Health Information Technology Impact on Quality, Efficiency and Cost (2006)

- Wu, Shinyi, et al. “Systematic review: impact of health information technology on quality, efficiency, and costs of medical care.” Annals of internal medicine 144.10 (2006): 742-752.
- 257 studies met the inclusion criteria of which 25% were from 4 academic institutions with internally developed systems
  - Brigham and Women's Hospital in Boston
  - LDS Hospital in Salt Lake City
  - Vanderbilt University Medical Center in Nashville
  - The Regenstrief Institute in Indianapolis
- Those 4 institutions (and only those 4) demonstrated
  - Benefits on quality:
    - Increased adherence to guideline-based care
    - Enhanced surveillance and monitoring
    - Decreased medication errors.
  - Benefit of improvement
    - Preventive health (DVT, pressure ulcers and post-op infections)
  - Efficiency benefit
    - Decreased utilization of care.

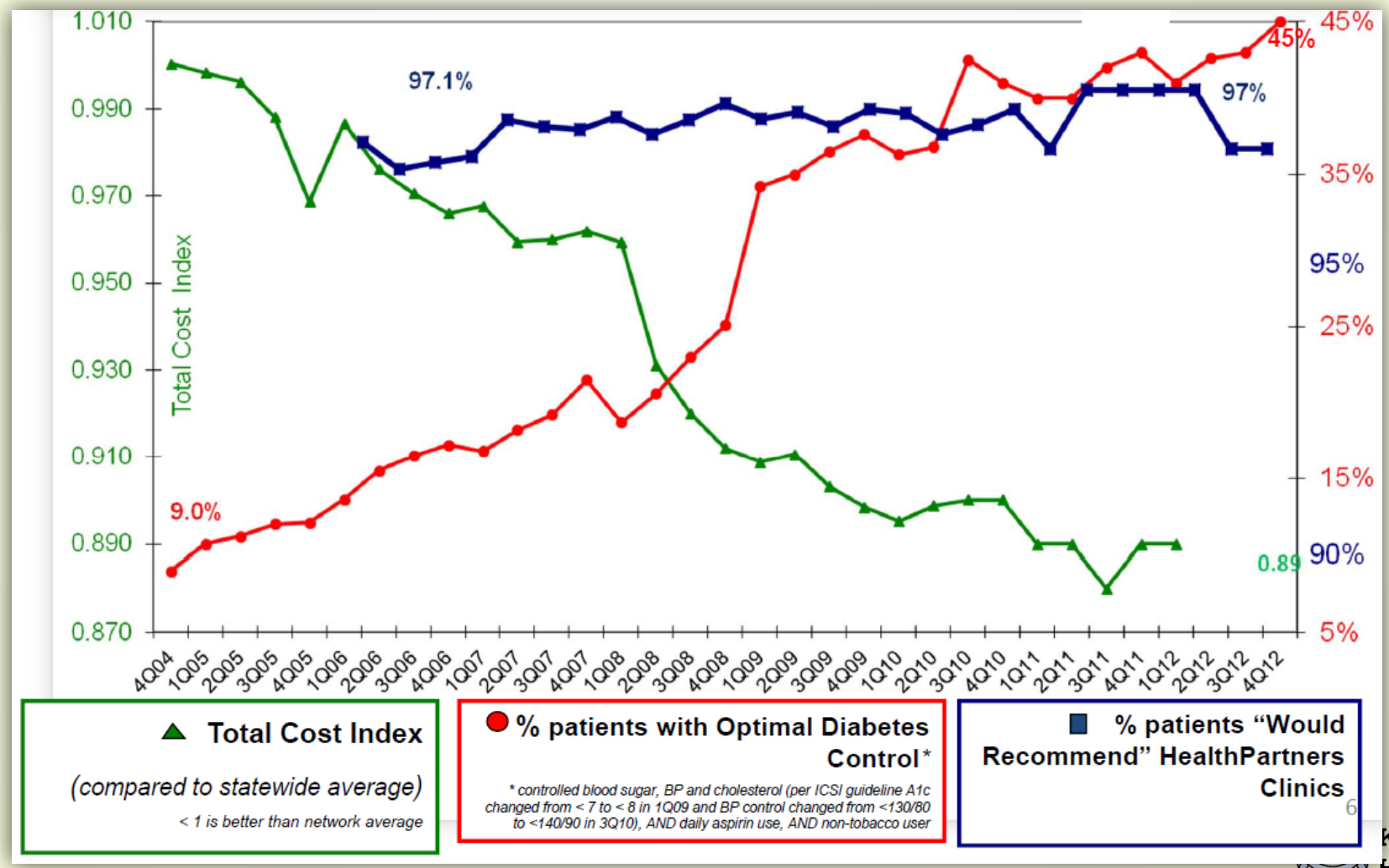
EHRs: Problems with Commercial Installations (2005 – 2007)

- Han YY, Carcillo JA, Venkataraman ST, et al. Unexpected increased mortality after implementation of a commercially sold computerized physician order entry system. Pediatrics. 2005;116(6):1506–1512
  - The rapid implementation of a minimally modified, commercially available CPOE system in a pediatric critical care unit was associated with an **increase in mortality rate** for children admitted via interfacility transport over a 5-month period.
- Linder, Jeffrey A., et al. "Electronic health record use and the quality of ambulatory care in the United States." Archives of Internal Medicine 167.13 (2007): 1400-1405.
  - Evaluated 50,000 patient records from over 1500 physician practices in 2003 and 2004 and found: "As implemented, EHRs were **not associated with better quality** ambulatory care."
  - Acknowledged the positive information came from 4 "benchmark" institutions

Local Customization of CPOE Improves Quality (2010 – 2012)

- Longhurst, Christopher A., et al. “Decrease in hospital-wide mortality rate after implementation of a commercially sold computerized physician order entry system." Pediatrics 126.1 (2010): 14-21. ↗
  - Pre and Post implementation of a locally modified CPOE and electronic nursing documentation system at quaternary care academic children's hospital demonstrated a monthly adjusted **mortality rate decreased by 20%**
- Bright, Tiffani J., et al. “Effect of clinical decision-support systems: a systematic review.” Annals of internal medicine 157.1 (2012): 29-43. ↗
  - A review of 148 randomized, controlled trials of electronic CDSSs implemented in clinical settings, used at the point of care and reported either clinical, health care process, workload, relationship-centered, economic, or provider use outcomes.
  - Both commercially and locally developed clinical decision-support systems (CDSSs) showed statistical **significance in improved health care process measures** related to performing preventive services, ordering clinical studies and prescribing therapies across diverse settings.

HealthPartner's Experience



Source: Alan Abramson, MN eHealth Conference May 2013
http://www.health.state.mn.us/e-health/summit/summit2013/s2013plenary2abramson.pdf

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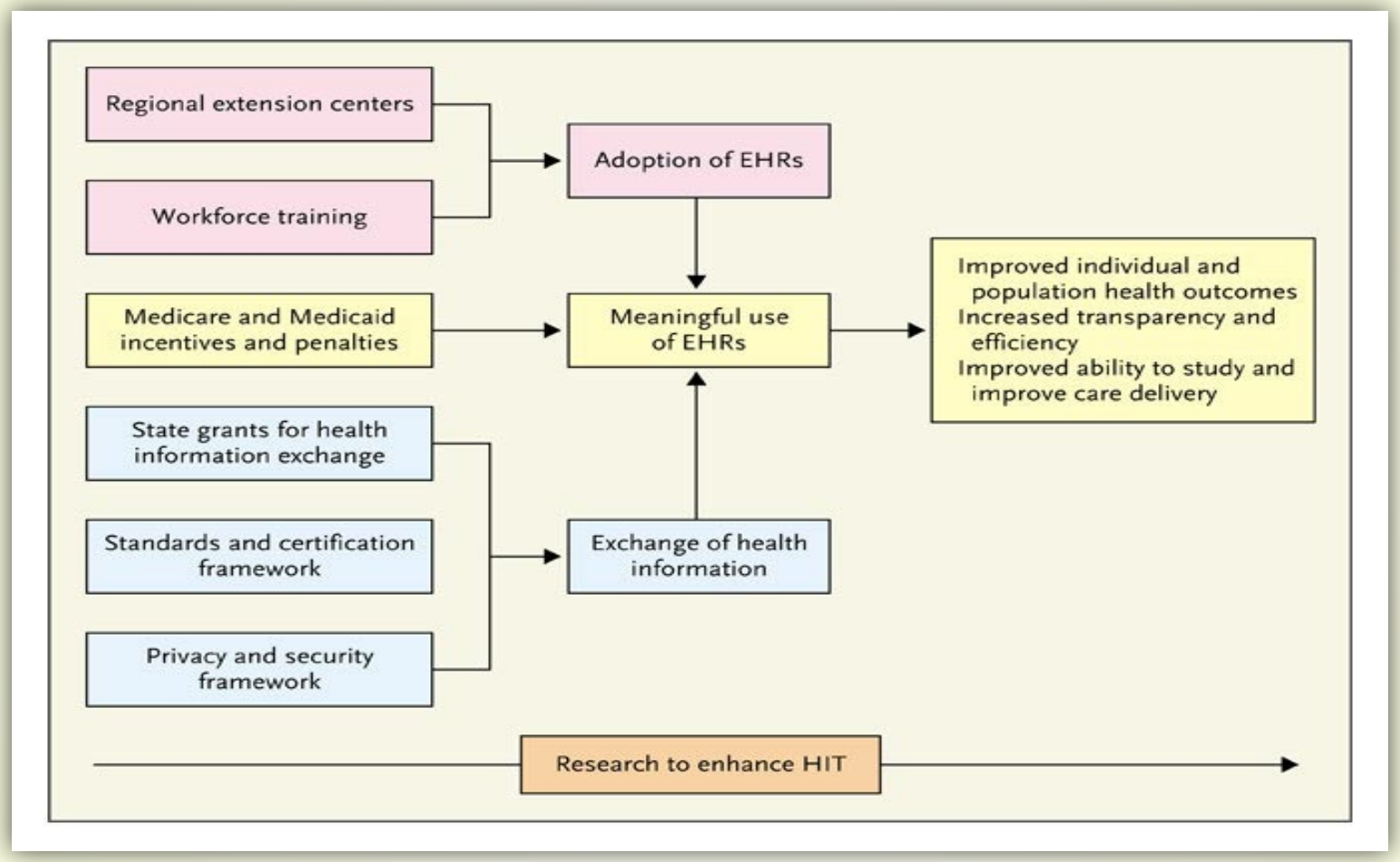
The Federal HITECH Act Framework



Blumenthal D. Launching HITECH. N Engl J Med posted online Dec 30 2009. http://healthcarereform.nejm.org/?p=2669

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ONC HIT Regional Extension Centers

- 62 HIT Regional Extension Centers nationwide
- Have subsidies to assist primary care providers in small practices and hospitals with under 50 beds to achieve meaningful use
- Regions do not overlap
- Collaborate with other RECs via the ONCs HIT Resource Center
  - Communities of Practice
  - Sharing of toolkits and resources

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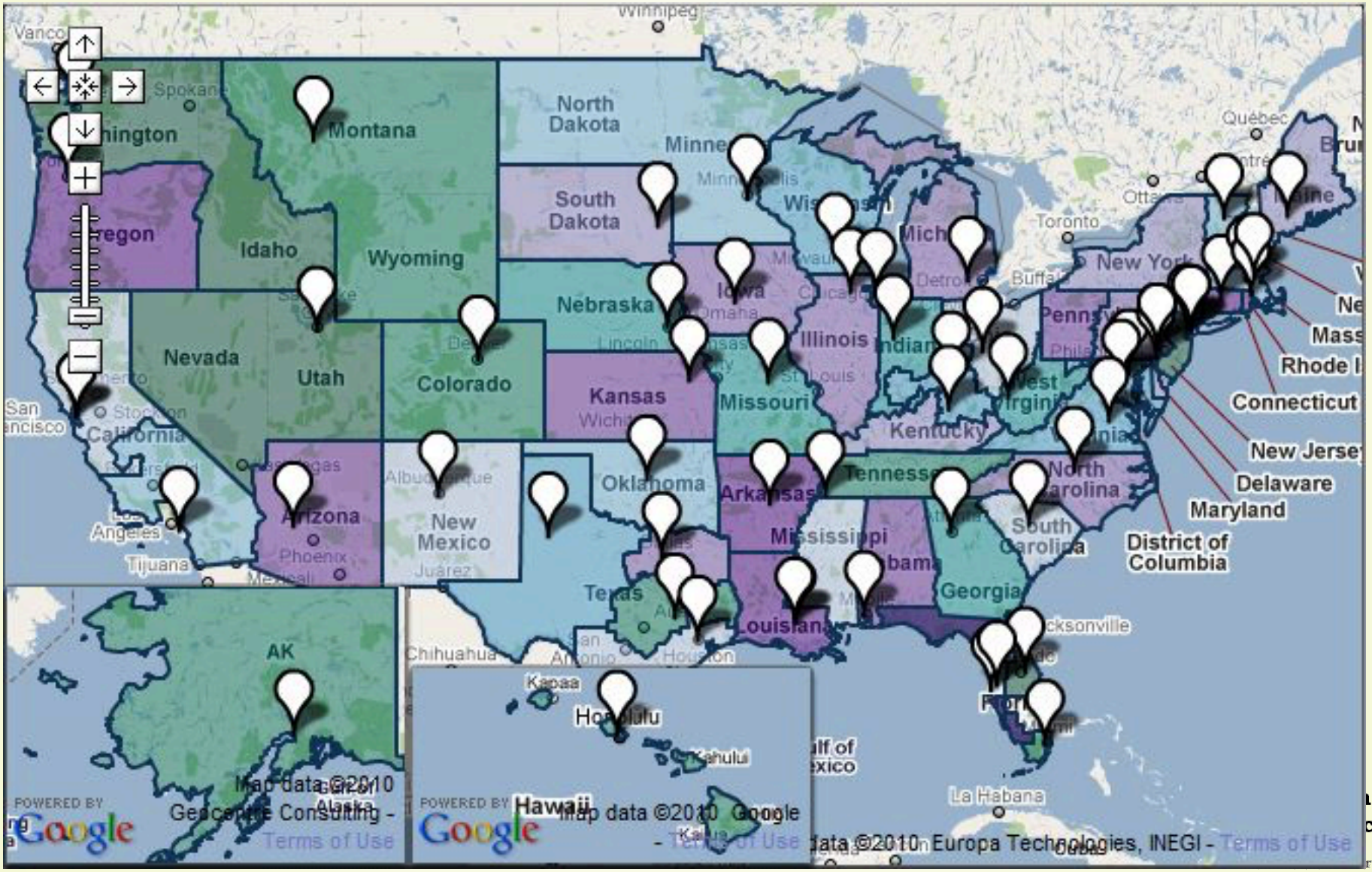
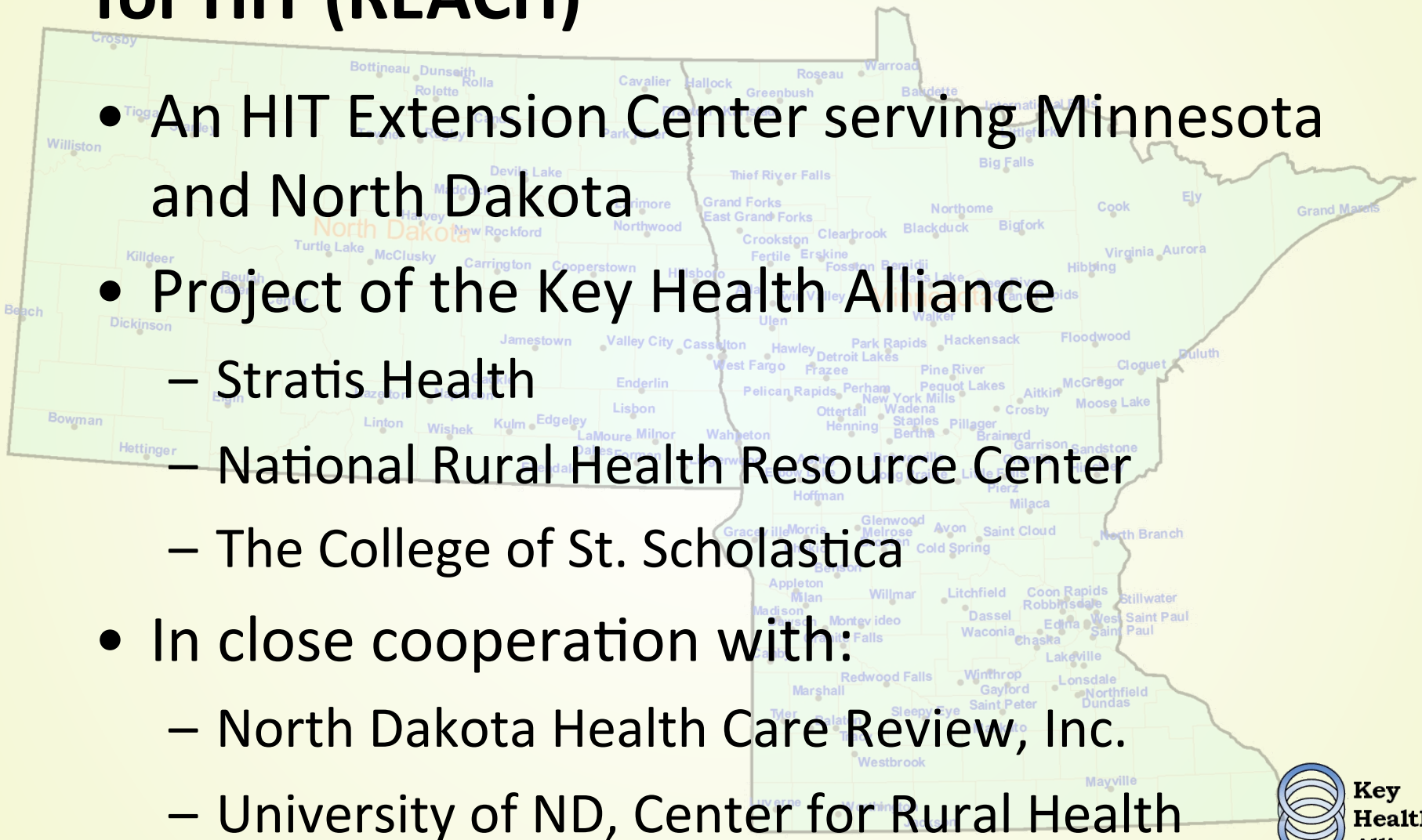
ONC HIT Regional Extension Centers



Regional Extension Assistance Center for HIT (REACH)



- An HIT Extension Center serving Minnesota and North Dakota
- Project of the Key Health Alliance
  - Stratis Health
  - National Rural Health Resource Center
  - The College of St. Scholastica
- In close cooperation with:
  - North Dakota Health Care Review, Inc.
  - University of ND, Center for Rural Health

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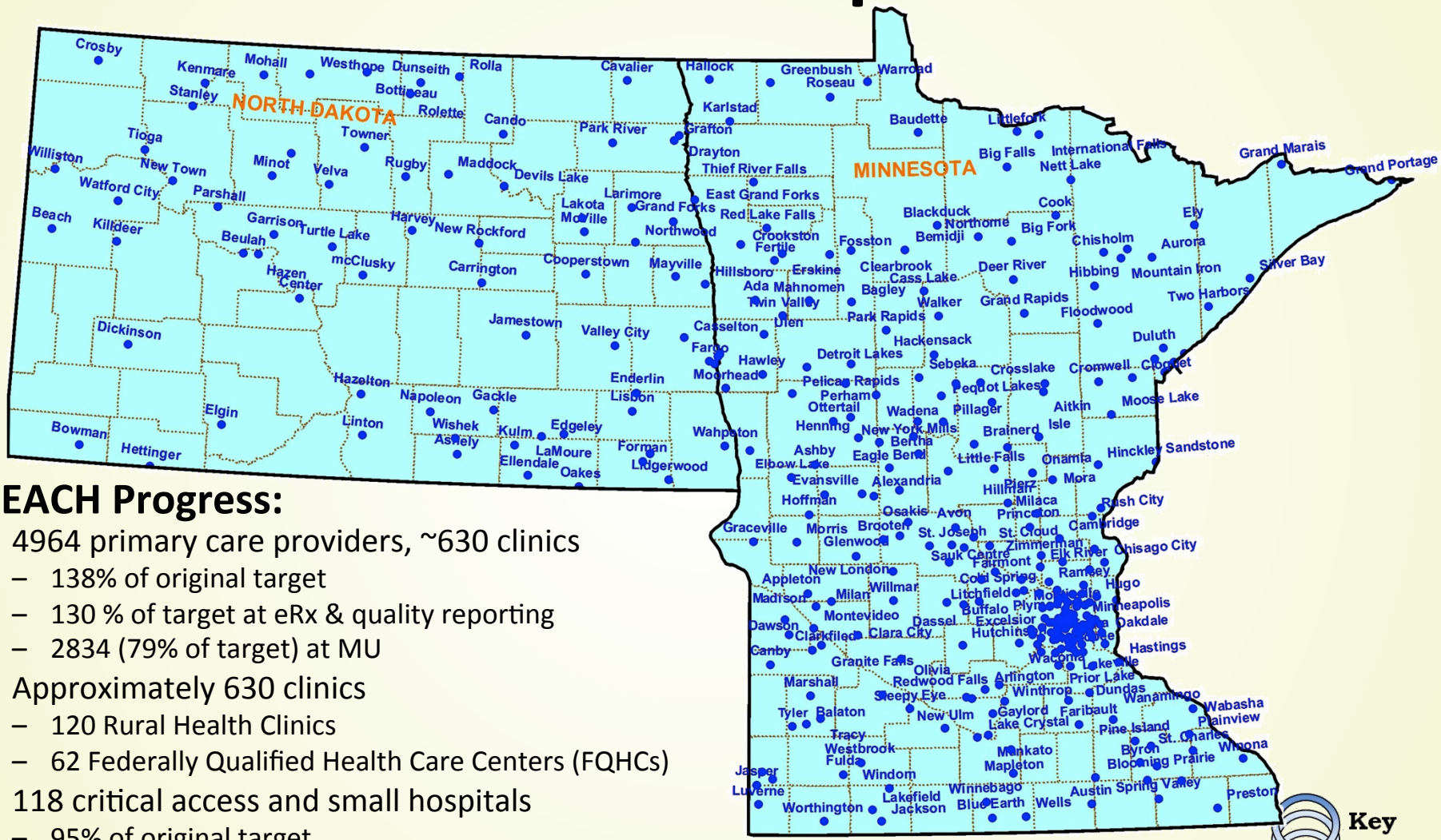
REACH Client Base – April 2014



REACH Progress:

- 4964 primary care providers, ~630 clinics
  - 138% of original target
  - 130 % of target at eRx & quality reporting
  - 2834 (79% of target) at MU
- Approximately 630 clinics
  - 120 Rural Health Clinics
  - 62 Federally Qualified Health Care Centers (FQHCs)
- 118 critical access and small hospitals
  - 95% of original target
  - 101 (81% of target) at eRx & quality reporting
  - 79 (64% of target) at MU

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Adoption

- Hospitals:[1]
  - Having a basic EHR System
    - 9.4% in 2008 – 44.4% in 2012
  - 85% possessed a certified EHR in 2012
- Professionals[2]
  - Using any type of EHR:
    - 18% in 2001 => 78% in 2013
  - Owned a basic system:
    - 11% in 2006 => 48% in 2013

1. ONC Data Brief #9, Mar 2013: http://www.healthit.gov/sites/default/files/oncdatabrief9final.pdf
2. CDC NCHS Data Brief Number 143, Jan 2014 http://www.cdc.gov/nchs/data/databriefs/db143.htm

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Regional Extension Centers

- As of November 2013:
  - 137,000 of the nation's primary care providers were enrolled with a REC (nearly half)
  - Of these, more than 124,000 (90%) went live with an EHR
  - Of these, over 85,000 (69%) have demonstrated meaningful use

http://www.healthit.gov/buzz-blog/regional-extension-centers/recs-surpassed-goals-increase-ehr-adoption/

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Canada EMR Adoption Model℠

Stage	Cumulative Capabilities	2011 Q2	2013	
Stage 7	Complete EMR; CCD transactions to share data; Data warehousing; Data continuity with ED, ambulatory, OP	0.0%	0.0%	
Stage 6	Physician documentation (structured templates), full CDSS (variance & compliance), full R-PACS	0.5%	0.6%	
Stage 5	Closed loop medication administration	0.2%	0.2%	
Stage 4	CPOE, Clinical Decision Support (clinical protocols)	1.7%	3.8%	+123%
Stage 3	Nursing/clinical documentation (flow sheets), CDSS (error checking), PACS available outside radiology	33.2%	32.2%	-3%
Stage 2	CDR, Controlled Medical Vocabulary, CDS, may have Document Imaging, HIE capable	23.9%	29.1%	+21%
Stage 1	Ancillaries – Lab, Rad, Pharmacy – All Installed	12.2%	14.5%	+19%
Stage 0	All Three Ancillaries Not Installed	28.3%	19.8%	-30%
		N = 639	N = 640	

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US EMR Adoption Model℠

Stage	Cumulative Capabilities	2011 Q2	2013	
Stage 7	Complete EMR, CCD transactions to share data; Data warehousing; Data continuity with ED, ambulatory, OP	1.1%	2.9%	+160%
Stage 6	Physician documentation (structured templates), full CDSS (variance & compliance), full R-PACS	4.0%	12.5%	+212%
Stage 5	Closed loop medication administration	6.1%	22.0%	+260%
Stage 4	CPOE, Clinical Decision Support (clinical protocols)	12.3%	15.5%	
Stage 3	Nursing/clinical documentation (flow sheets), CDSS (error checking), PACS available outside radiology	46.3%	30.3%	
Stage 2	CDR, Controlled Medical Vocabulary, CDS, may have Document Imaging, HIE capable	13.7%	7.6%	-45%
Stage 1	Ancillaries – Lab, Rad, Pharmacy – All Installed	6.6%	3.3%	-50%
Stage 0	All Three Ancillaries Not Installed	10.0%	5.8%	-42%
		N = 5439	N = 5458	

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Why is this important?

- Patients at higher levels of activation had more positive experiences than patients at lower levels seeing the same clinician
  - Greene, Jessica, et al. "When Seeing The Same Physician, Highly Activated Patients Have Better Care Experiences Than Less Activated Patients." *Health Affairs* 32.7 (2013): 1299-1305. http://content.healthaffairs.org/content/32/7/1299.short
- Activated patients have better health outcomes

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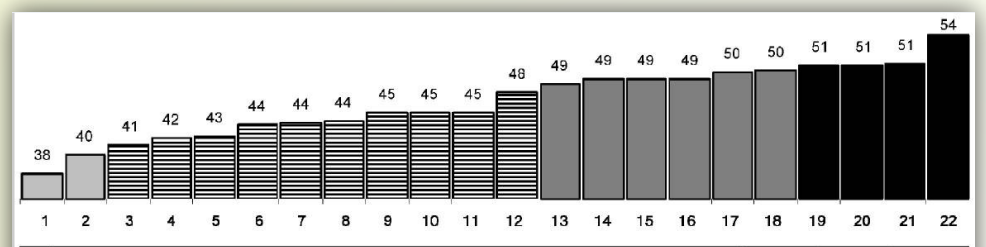
Patient Activation Measure



			SEM	Infit	Outfit
	Believes Active Role Important				
	1	When all is said and done, I am the person who is responsible for managing my health condition	0.39	0.92	0.88
	2	Taking an active role in my own health care is the most important factor in determining my health and ability to function	0.39	1.08	1.06
	Confidence and Knowledge to Take Action				
	3	I know what each of my prescribed medications do	0.44	1.02	0.99
	4	I am confident I can tell my health care provider concerns I have even when he or she does not ask	0.39	0.96	0.91
	5	I am confident that I can tell when I need to go get medical care and when I can handle a health problem myself	0.39	0.86	0.82
	6	I know the lifestyle changes like diet and exercise that are recommended for my health condition	0.39	0.71	0.67
	7	I am confident that I can follow through on medical treatments I need to do at home	0.39	0.92	0.94
	8	I am confident that I can take actions that will help prevent or minimize some symptoms or problems associated with my health condition	0.39	0.91	0.86
	9	I am confident that I can find trustworthy sources of information about my health condition and my health choices	0.38	0.85	0.81
	10	I am confident that I can follow through on medical recommendations my health care provider makes, such as changing my diet or doing regular exercise	0.38	0.92	0.88
	11	I understand the nature and causes of my health condition(s)	0.40	0.95	0.91
	12	I know the different medical treatment options available for my health condition	0.39	0.84	0.80
	Taking Action				
	13	I have been able to maintain the lifestyle changes for my health that I have made	0.37	0.91	0.90

- Criteria
  - Believes active role is important
  - Confidence and knowledge to take action
  - Taking Action
  - Staying the course under stress

Source: Hibbard, Judith H., et al. "Development of the Patient Activation Measure (PAM): conceptualizing and measuring activation in patients and consumers." *Health services research* 39.4p1 (2004): 1005-1026. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1361049/

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PAM Scores as a Predictor

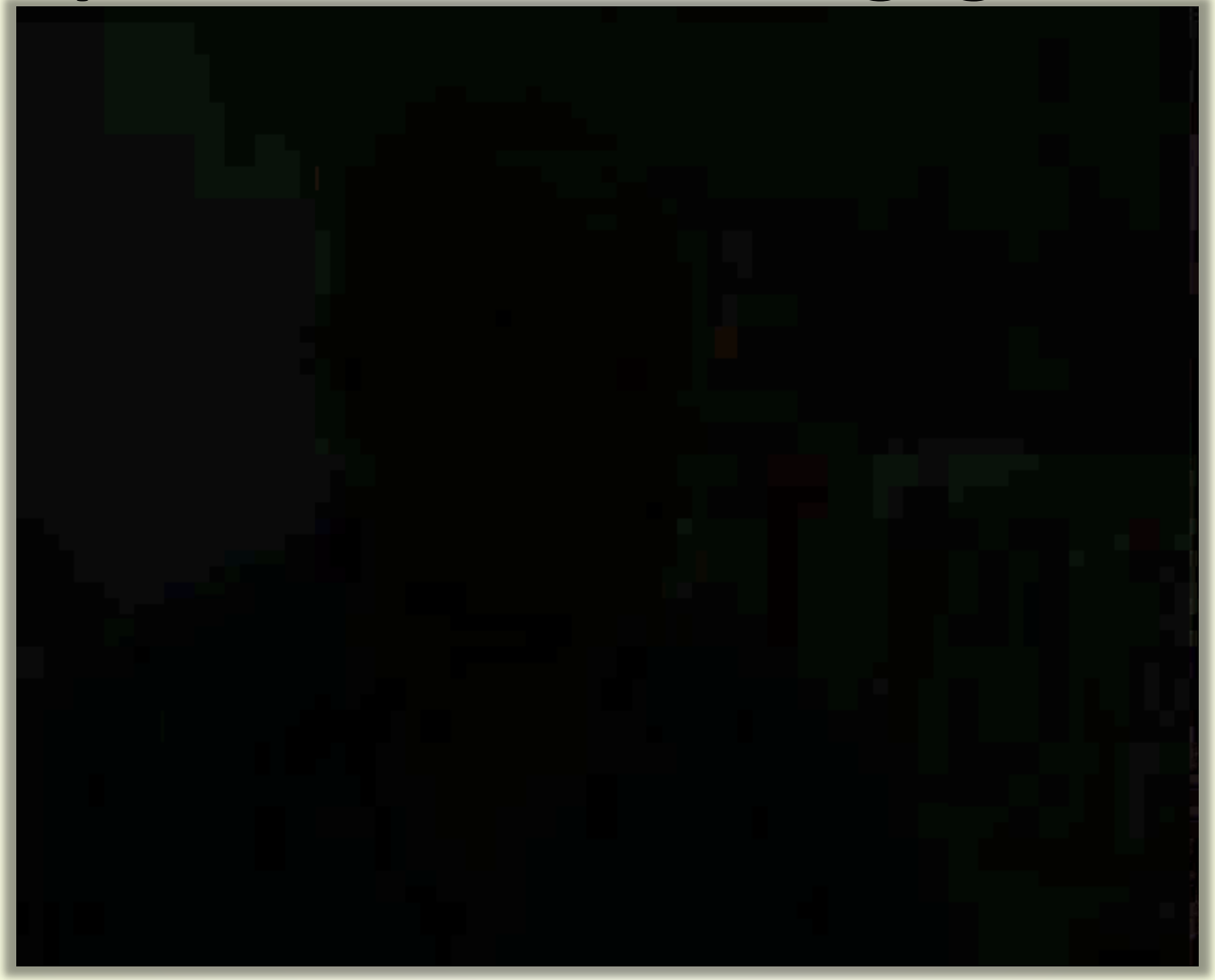
Study demonstrating PAM scores predict utilization and health outcomes two years into the future for diabetics

	% change for a 1 point change in PAM Score	Comparing a PAM Score of 70 (L4) vs. 50 (L2)	*P*
Hospitalization	1.7% decline	34% decreased likelihood of hospitalization	.03
Good A1c control (HgA1c < 8%)	1.8% gain	40% greater likelihood of good glycemic control	.01
A1c testing	3.4% gain	68% improvement in testing	.01
LDL-c testing			

Remmers, Carol Louise Guisinger. *The relationship between the patient activation measure, future health outcomes, and health care utilization among patients with diabetes*. Walden University, 2008.

Multivariate analysis which controlled for age group, gender, race, co-morbidities and number of diabetes-related prescriptions.

Compliance ≠ Patient Engagement



Source: AMA Health Literacy Video - Short Version
http://www.youtube.com/watch?v=ubPkdpGHWAQ

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Benefits of Patient and Family Engagement and Hospital Performance

- Overall improvements in quality and safety
  - A new visitation policy to promote patient and family engagement, corresponded with a 62 percent reduction in medication errors, a 40 percent reduction in falls, and a 50 percent decrease in length of stay
- Improved patient outcomes
  - Emotional health, symptom resolution, pain control, physiological measures.
  - Reduction in preventable readmissions
- Improved CAHPS Hospital Survey scores
  - Engagement strategies have led to an increase in patient satisfaction scores from the 10th to the 95th percentile.
- Better responses to the Joint Commission
  - Standards for patients and families to be active and informed decision-makers

AHRQ Guide to Patient and Family Engagement in Hospital Quality and Safety
http://www.ahrq.gov/professionals/systems/hospital/engagingfamilies/index.html

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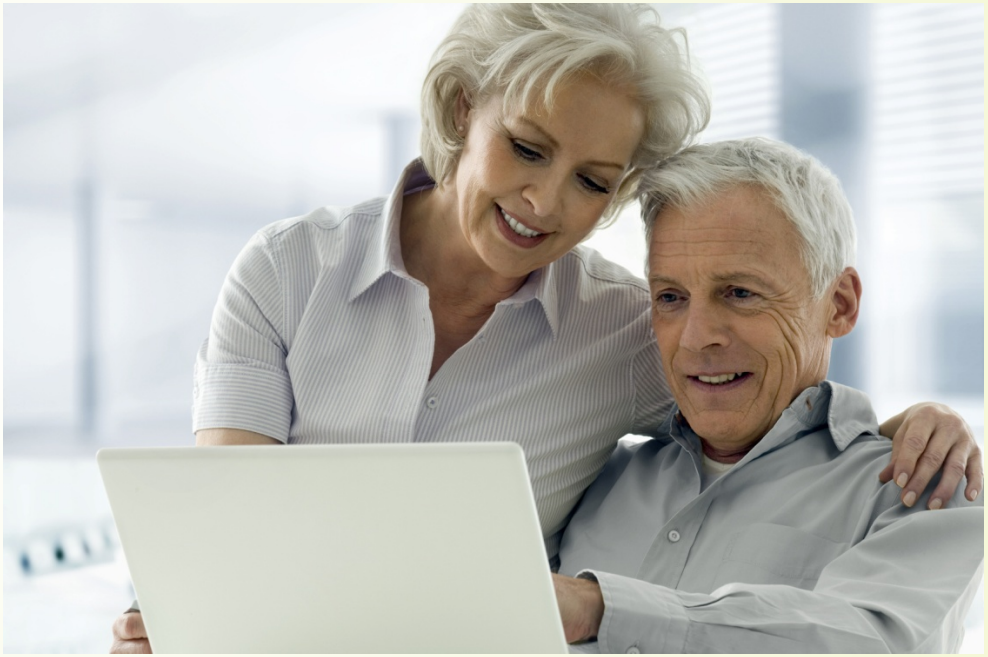
Benefits of Patient and Family Engagement and Hospital Performance

- Improved financial performance
  - Decreased litigation and malpractice claims
  - Lower costs per case due to complications
  - Improved patient flow
  - Less waste associated with higher call volume, repetitive patient educations efforts, diagnostic tests
- Enhanced market share and competitive
  - Increase in new and returning patients by incorporating patient- and family-centered care into their business model
- Increased employee satisfaction and retention
  - A facility decreased the average nurse turnover rate (from 21 to 7 percent)

AHRQ Guide to Patient and Family Engagement in Hospital Quality and Safety
http://www.ahrq.gov/professionals/systems/hospital/engagingfamilies/index.html

Part of Engaging Patients in Their Care

- Clinical summaries
- Patient-specific education resources
- Provide patients with electronic access to their health record
- Patient reminders for follow-up care
- Secure messages from patients



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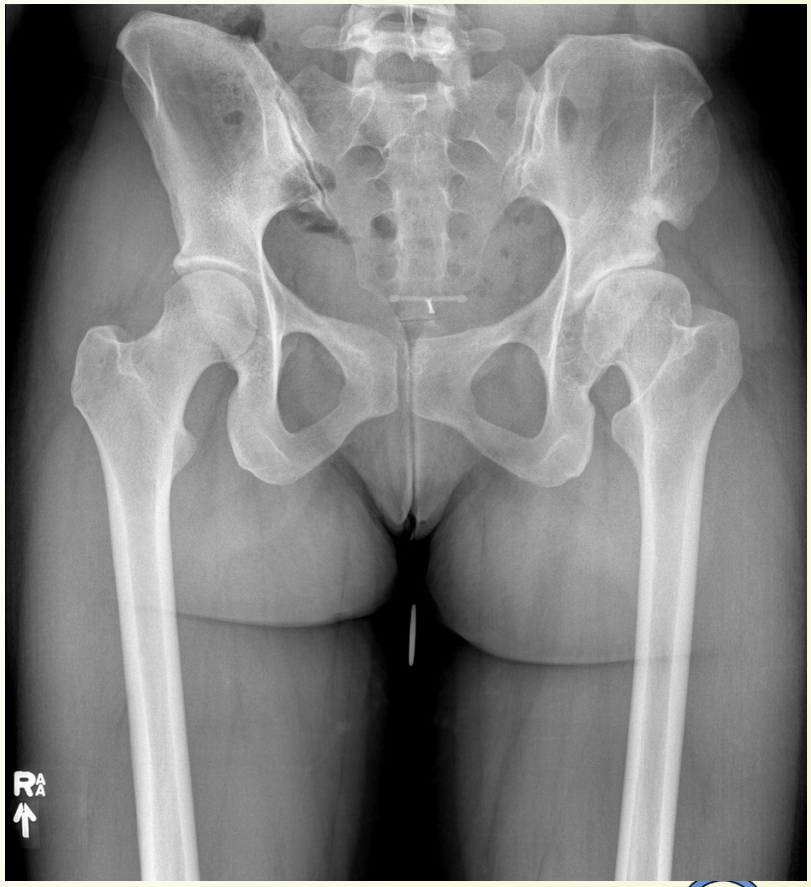
Information for patients and the provider

- Electronic Exchange of Information
- Referral/Transfer of care summary
- Imaging results
- Labs as structured data



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But….It's Not Really a Technology Problem

- eAccess is very important
- eAccess is not enough
- A paradigm shift that begins with seeing the patient as an active partner will naturally result in granting access to records
- A mandate to provide access to records will not naturally result in a paradigm shift to seeing the patient as an active partner

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Keys to successful patient engagement strategies

Convenience

- Meet them where they are
- Provide services that simplify their lives
- Make every interaction simple, seamless

Connection

- with caregivers and friends
- with their doctors and care team
- with people like them

Relevant & Timely Data

- about them
- about their diseases, conditions, drugs, tests
- that can help them make choices
- that can educate and encourage them

Slide courtesy of Jan Oldenburg, Oldenburg Consulting and Mary Griskewicz, HIMSS

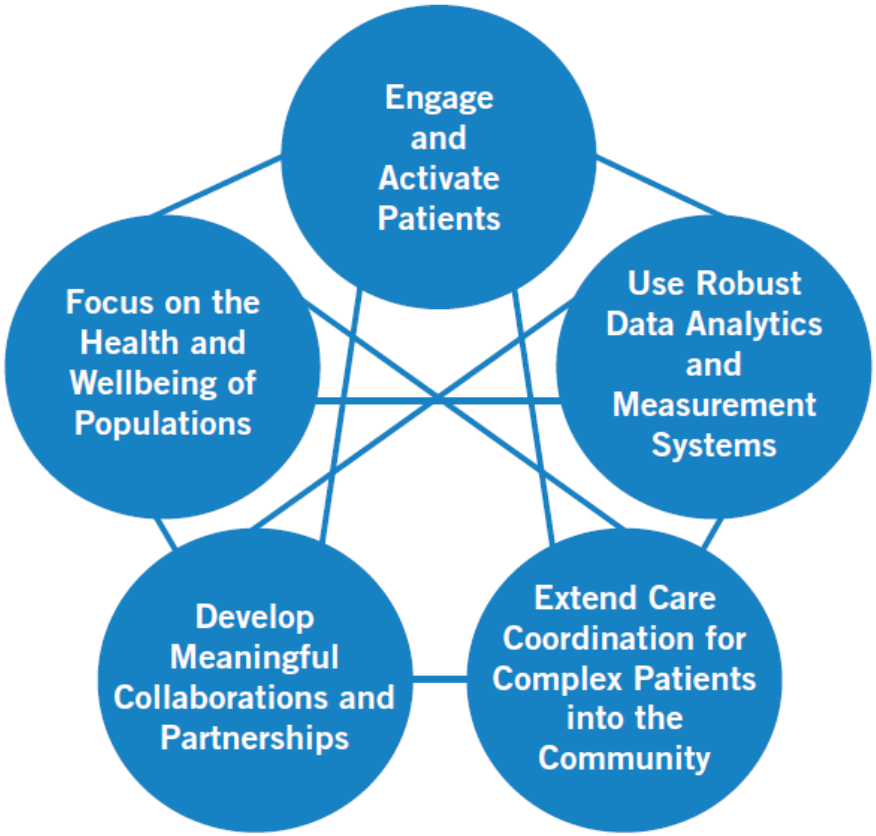
HEALTH REFORM

Actions to Build Capacity for the Triple Aim and Succeed in Multiple Payment Models

ACTIONS TO BUILD THE FOUNDATION

- Provide Visionary Leadership and Promote a Learning Culture
- Embed Strong Organizational Change Skills Supported by Quality Improvement Methods
- Redesign Care to Consistently Use Evidence-based or Best Practices
- Establish an Enabling IT Platform with Interoperable EHR and Effective HIE

ACTIONS TO BUILD RELATIONSHIPS, MANAGE POPULATIONS AND ADD VALUE



OUTCOMES

- Better Care
- Better Health
- Lower Cost

 Sources: *The Strategy that Will Fix Health Care,* Michael E. Porter and Thomas H. Lee, *Harvard Business Review,* October 2013. *The Chronic Care Model,* Edward H. Wagner.

Characteristics of Transforming Care in the Community

	WHAT NEEDS TO HAPPEN	TODAY	TOMORROW (3-5 YEARS)
BUILD THE FOUNDATION	Provide Visionary Leadership and Promote a Learning Culture	Acknowledging the status quo won't work and there will be financial implications	A vision exists for the new marketplace including the interdependent actions and cultural learning that is required to transform care
	Embed Strong Organizational Change Skills Supported by QI Methods	Working on a variety of independent improvement projects	A culture of continuous improvement enables small and large scale change in response to the rapidly evolving market
	Redesign Care to Consistently Use Evidence-based or Best Practices	Attempting to use existing evidence with variable impact on care and cost	Providers are accountable for care and rewarded across payers based on quality, patient experience, and cost performance
	Establish an Enabling IT Platform with Interoperable EHR and Effective HIE	Implementing and utilizing EHR and HIE with wide variation across settings	HIT is fully utilized for population management with a real ability to exchange information with multiple applications and the full array of care partners
BUILD RELATIONSHIPS, MANAGE POPULATIONS AND ADD VALUE	Engage and Activate Patients	Demonstrating significant variability in the level of patient engagement	Patients and families are engaged partners in their care, with preferences and values honored
	Use Robust Data Analytics and Measurement Systems	Growing expectation for quality measures and reporting	Data is used to drive decisions at the patient/population level and includes outcomes, social determinants of health, and resource utilization
	Extend Care Coordination for Complex Patients into the Community	Beginning to work on better care coordination to reduce hospital readmissions	Communication and hand-offs across settings appear seamless and are highly coordinated by a care team integrated with community resources
	Develop Meaningful Collaborations and Partnerships	Responding with affiliations that are imbalanced, limited in scope, and sporadic	Extensive mutually beneficial relationships are used to leverage and share resources across care settings and in the community
	Focus on the Health and Wellbeing of Populations	Community health needs not driving strategic planning	Prevention is a primary focus. Needs of populations (linguistic, cultural, socioeconomic) are understood and guide service development.

Resources

- HIMSS
  - http://www.himss.org/library/patient-engagement-toolkit
- Stratis Health/REACH
  - http://www.khareach.org/patient-engagement-portal
- AHRQ Guide to Patient Engagement for Hospitals
  - http://www.ahrq.gov/professionals/systems/hospital/engagingfamilies/index.html

Key Health Alliance
Regional Extension Assistance Center for HIT

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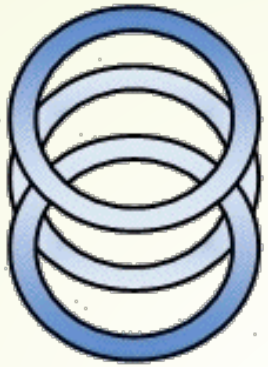
Stratis Health is a nonprofit organization that leads collaboration and innovation in health care quality and safety, and serves as a trusted expert in facilitating improvement for people and communities.



Key Health Alliance

Regional Extension Assistance Center for HIT

Key Health Alliance—Stratis Health, Rural Health Resource Center, and The College of St. Scholastica.

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