Volunteer eHealth Initiative

State and Community Efforts to Foster Connectivity

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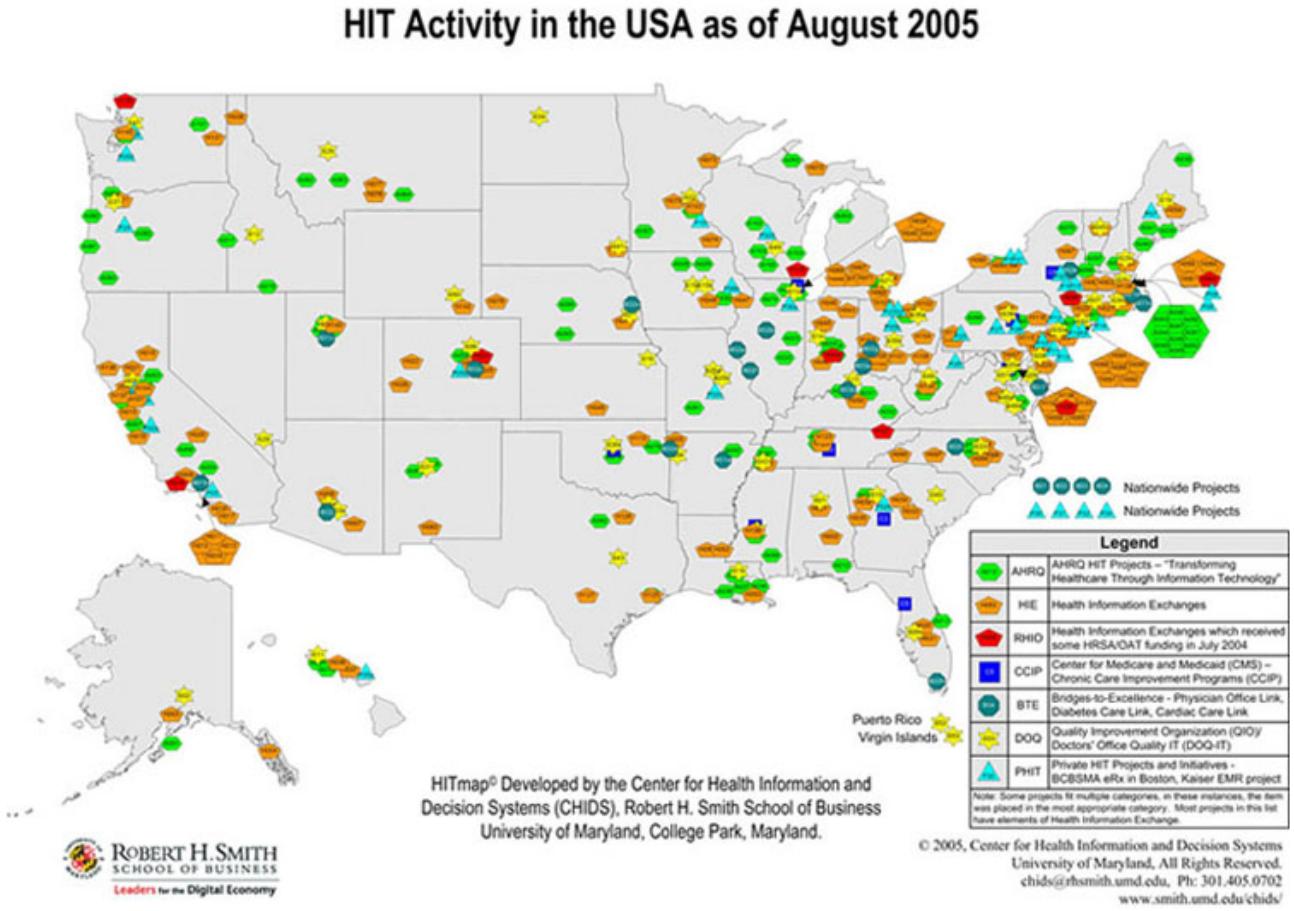
Activity in Every State



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Why States?

- The health of the public
- Convening power
- Legislative power
- Regulatory power – administrative and clinical
- Employer power
- Payer power - Medicaid
- The uninsured
- Hospitals – rural and urban – in jeopardy
- Business growth
- The evolution of markets

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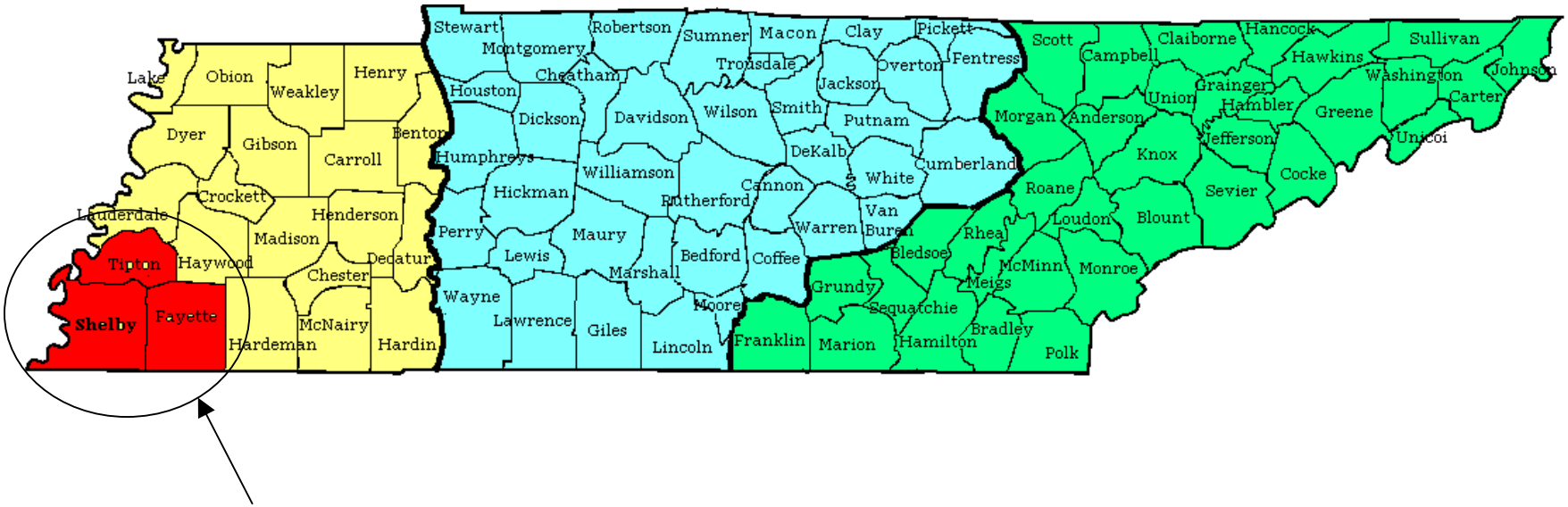
One of Multiple Initiatives In Tennessee



Our initiative covers 3 counties and includes Memphis.
Other initiatives include Shared Health (Blue Cross / Cerner); CareSpark (Tri-Cities – NE TN); eastern TN Health Information Network; Tennessee borders 8 other states. It is a long state Tri-Cities are 370 miles from Canada and 430 miles from Memphis! (Same as San Diego to San Franscisco)

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Why Memphis?

- Major financial and management problems at the Regional Medical Center (“The MED”)
- A large concentration of uninsured and Medicaid patients
- A governor committed to improving health care who wanted to start with the major hospitals and then use the infrastructure to improve rural care. “portfolio of initiatives”
- A recognition that the problems of “the MED” are regional care delivery problems
- A region committed to improving quality & care for all
- An interim technology solution available through Vanderbilt and implemented at the request of the Governor

What Did We Do?

- Learned from the lessons of others
- Began a six-month planning exercise 2005
- Focused on technical and governance issues.
- Looked for immediate return – emergency departments
- Funding from AHRQ and the State of Tennessee
- Organizational framework – supported by the State
- Fully-implemented legal framework – based on the Markle Connecting for Health Framework
- Operational system with 12 data sources in less than two years

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Our Approach

- We are building a system to understand the issues critical to more effective use of health information
- Our system is working in Memphis today
- Our system is focused on hospitals and large clinics in anticipation of a broader infrastructure to all caregivers
- We want to understand the business case, the technical issues, the privacy issues, and the organizational issues
- We do not claim to have “the answer” but only to ask some of the “right questions.”
- Our system will be replaced at some future date through an open bidding process. Timing will depend on extent to which the nation can arrive at standardized approaches.

Core Data Elements

- Demographic information
- Hospital labs
- Hospital dictated reports
- Radiology reports
- All other relevant clinical information hospital can make available in electronic format
- Allergies (when standards arrive)
- Retail pharmacy medications (2007)
- Ambulatory notes (2007 – 2008)

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The Process

- Planning (June 2004 – January 2005)
- Implementation (October 2004 – present)
- Memoranda of Understanding / Bus. Assoc. Agreements
- Secure data connections and data feeds
- Test data (June 2005) and production data (Aug 2000)
- Multiple regional workshops
- Formation of 501(c)3 – MidSouth eHealth Alliance
- Implementation of legal and policy infrastructure largely based on Markle Connecting for Health Framework
- Pilot work in the Med Emergency Department (May 2006)

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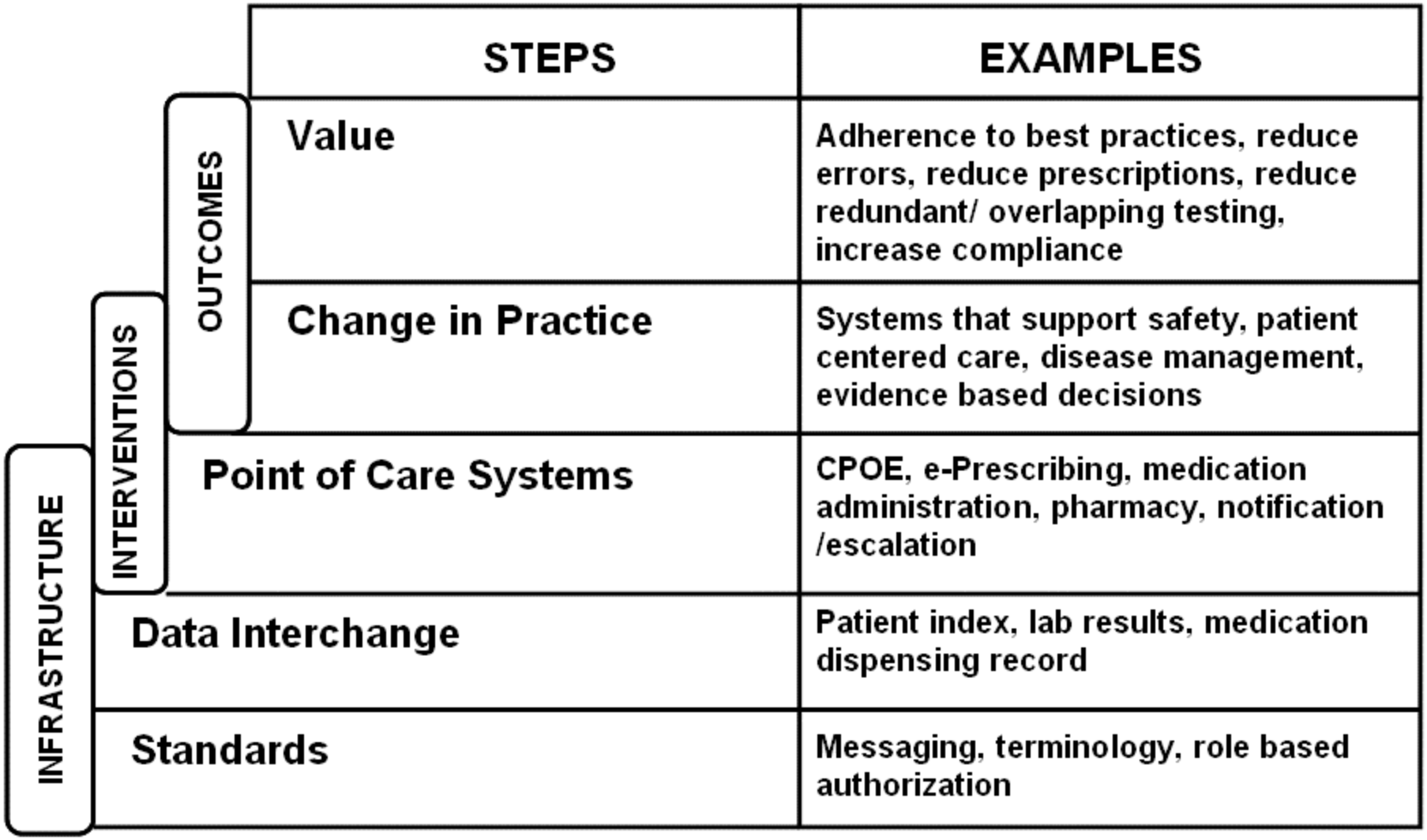
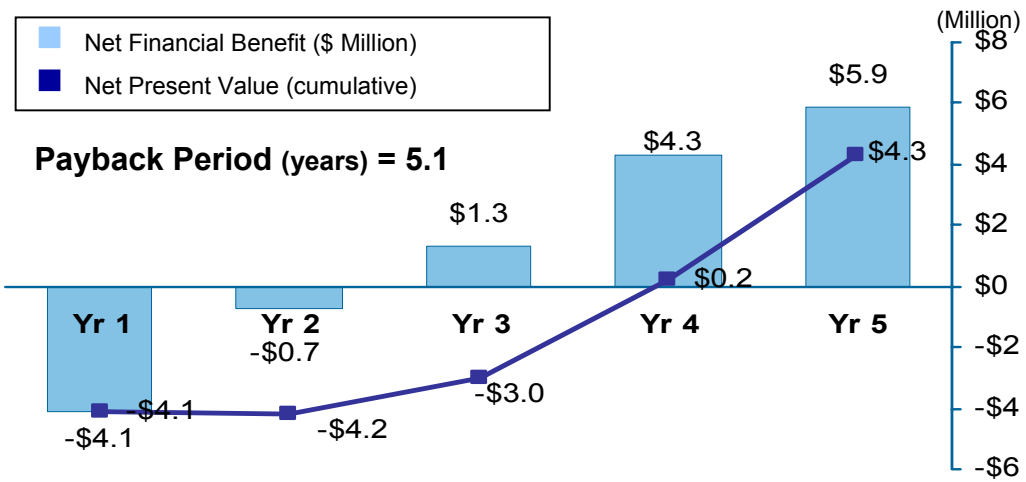
AHRQ / Tennessee: An Intervention Framework



Example: NPV to ED Provider



The State of Tennessee and the Core Healthcare Entities realize a higher financial gain when you consider the different stakeholder contributions.

State of Tennessee	Core Healthcare Entities
Payback Period = 2.7	Payback Period = 1.2
Return on Investment = 1.6	Return on Investment = 8.2

Assumptions

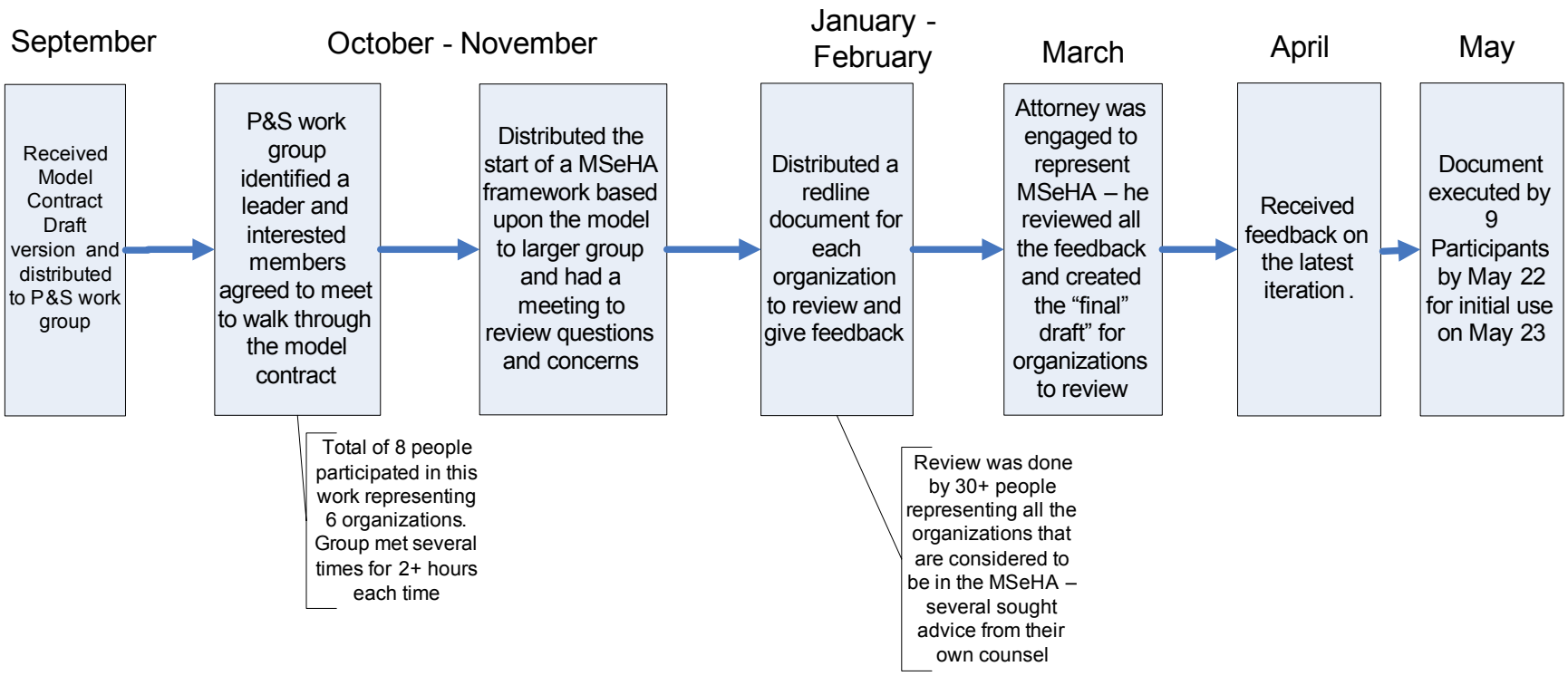
- Based on data obtained on the core healthcare entities and Memphis Managed Care
- Research factors are applied to calculate the benefits
- Deployment schedule is limited initially to EDs and Labor & Delivery; years four and five will extend to all healthcare providers
- Inflation and volumes remain constant
- The costs to move and support the RHIO data center are not included in the five-year forecasts
- The RHIO support desk infrastructure is not established; Vanderbilt will provide this service
- Labcorp will not charge the project for their effort
- The average cost for a core healthcare entity for implementation and operation activities is $30,000 per year.

Privacy, Confidentiality, and Security

- Technology design set only boundary conditions for implementation and has evolved over time.
- From the outset, system was driven by policies; policies were not driven by technology constraints.
- We underestimated the magnitude of effort; we thought these issues would be a three-month task; we now see no end in sight! 25 members meet a half-day each month.
- We implemented an extensive set of agreements based on the Markle Connecting for Health Framework

Approach to the Regional Data Exchange Agreement

Note: Our overall approach was to do as much work as we possibly could without incurring legal fees



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Policy and Legal Challenges

- Consensus takes time and deep understanding. One cannot reach absolute consensus.
- Getting more than 9 attorneys to agree requires education and leadership
- Time requirements were considerable – hundreds of collective hours
- Legal fees (despite Markle “boost” were significant). When and how to engage counsel is a major decision
- Policies and procedures will evolve as use evolves to include broader population-based work and other types of clinical applications

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Next Steps

- Reconcile Memphis regional project with overall state strategy and other regional and TN-wide efforts
- Refinement of system and roll-out in all emergency departments
- Re-build infrastructure to be completely open-architecture and component-based. Integrate emerging standards.
- Integrate with medication history and other sources of plan and laboratory information
- Build business model for a “utility” supporting all certified point-of-care systems in use in the region
- Expand use to public health, quality initiatives

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What It Took

- Leadership – from the Governor and Commissioner of Finance and Administration
- Commitment – from the health care leaders in Memphis
- Focus – didn't try to do it all at first; focused on EDs
- Low-profile – no promises that can't be kept
- Common challenges – understanding that plan-based systems, quality initiatives, P4P and other changes are best addressed through dialogue
- Passion from the clinical community – the "wow" factor from emergency department physicians
- Legal and policy infrastructure

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Summary of our Lessons

- Strong leadership – almost coercive – required to initiate the effort
- Possession of patient data should not confer a competitive advantage
- Data exchange does not have to be expensive and can evolve
- Technologies can be inclusive & create markets
- Addressing major impediments to regional data exchange is essential for any advanced use of health information technology
- Current approaches may not reach potential in the current payment climate; states must foster sustainability models
- Federal guidance will make a difference
- If you build your institutional system right and evolve collectively, you can create enormous value on the margin
- Things are going to happen no matter what the federal appetite