

Secrets Of My Success (and Failures): Productive Practitioner-Researcher Collaboration



Joe Gibson, MPH, PhD
Director of Epidemiology

Marion County Public Health Department



Arthur Davidson, MD, MSPH

Director of Informatics, Epidemiology, & Preparedness

Denver Public Health



Objectives



- ☕ Give examples of successful researcher-practitioner collaborations
- ☕ Illustrate how communication and partnerships were central to success
- ☕ Discuss how to leverage our complementary knowledge, skills, & missions










Setting



- ☕ Regenstrief Institute (RI) & Indiana Health Information Exchange (IHIE)
 - Lab. results delivery to >90% central Indiana MDs
 - Access to cross-provider data at ED admit
 - Links many systems. Some central storage.
 - Strong research mission and funding (RI)
- ☕ Health dept. director with informatics vision
 - IT development is a priority
 - Supports informatics vision
 - Active in regional informatics initiatives








Key Moments in History



-  1970' s: RI develops electronic medical record for Indianapolis' s public hospital
-  1990' s: Hospitals and health dept. fund what becomes IHIE.
 -  Core: electronic delivery of lab. result (\$ saving).
-  1995: PH gets reportable disease lab. results
-  2005: PH gets ED data (syndromic surveillance)
 -  state contract
-  2008 – RI gets significant PH Informatics grant
 -  2008-2010: Accelerating PH Situational Awareness
 -  2009-(2011): Center of Excellence in PH Informatics

Successes – PH value via HIE



-  PH alerts via lab. results delivery system
-  ED data for syndromic surveillance
-  TB case follow-up notices
 -  TB screening
-  Infrastructure
 -  Share experience
 -  Mirth

Successes – PH value via HIE



Reportable disease laboratory results

- Notifiable Condition Detector (NCD)
- MD contact information enhanced
- Patient contact information enhanced
- Improved transmission mode
- Augment reportable disease lab reports with related clinical data (in progress)

In Progress



- ☕ Partially completed case report forms
- ☕ De-duplicate our core data system
- ☕ MPI
 - Shared learning, oriented us
 - May use Regenstrief' s MPI
- ☕ Reportable disease case information
 - Access for 90 days, electronically triggered
 - Reduce burden on hospital & health dept.

Setbacks & Challenges



- ☕ Community needs assessment statistics
- ☕ Health department lab. data into HIE
- ☕ Unfunded assessments

How & Why



- ☕ Shared Goal: Leverage HIE to improve PH
- ☕ Tacit Commitment to Work Together
 - Recognizing each other's expertise
 - Knowing (& saying) what we needed
 - Recognizing (& saying) what we won't use
- ☕ Incremental changes, small wins
 - Periodic meetings, front-line knowledge
 - Low hanging fruit is not obvious
 - Usually revealed during discussions between practitioner & systems tech. or researcher

Funding



- Early: little funding, scant interaction, slow progress
- PH Situational Awareness grant (2008-2010)
 - Multiple projects,
 - Good progress,
 - Much more interaction
- Center of Excellence grant – continued good work
- Future – little funding
 - Decreased interaction
 - Work together seeking grants
 - Look for “piggy-back” opportunities

Setting



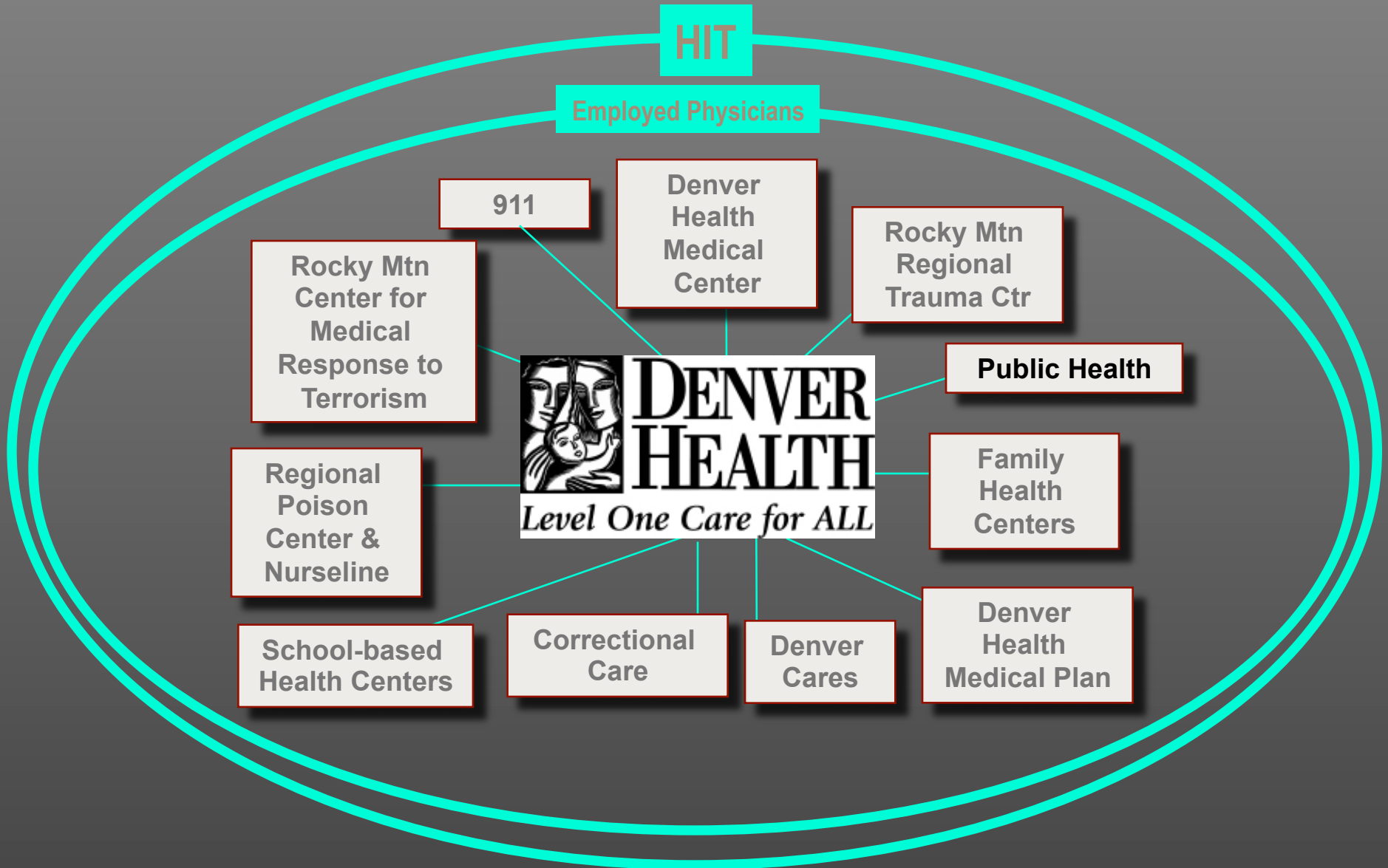
Denver Health and Hospital Authority

- Safety-net integrated healthcare system
- Access to cross-provider data through integrated EMR
- Links many systems. Large data warehouse and central storage.
- Research within its mission and aggressively seeks funding

Denver Public Health

- Leadership places IT development as a priority
- Limited internal funds to support the vision
- Active in regional informatics initiatives

Denver Health: Integrated Health Care System



Timeline of Key Events



- ☕ 1980' s DPH becomes core site for AIDS Surveillance
 - Begin development of electronic surveillance activities
- ☕ 1997: DHHA established as an independent authority recognized by state
 - Still responsive to needs of City and County residents
 - Begins a massive investment in informatics >\$250M
 - Partners with Siemens
- ☕ 1999: DPH gets CDC Advanced Practice Center grant
- ☕ 2003: DHHA begins sending ELR to CDPHE
- ☕ 2004: UCD receives AHRQ State HIE demonstration grant
- ☕ 2009-(2011): Collaborator with Center of Excellence in PH Informatics – University of UT

Successes – PH value (not yet via HIE)



- ☕ Contribute to development of statewide immunization registry
- ☕ Contribute to ELR from a health care system
- ☕ ED data for syndromic surveillance
 - 2006 - BioSense site
 - 2008 - Expanded for Democratic National Convention

In Progress



- ☕ Develop a business intelligence environment
 - Improve data-driven public health programs
 - Address accreditation needs
- ☕ Work on national federated query exchange (AHRQ)
 - SAFTINet (asthma, CVD)
 - SPAN (obesity, ADHD)
- ☕ Work on local federated query exchange projects
 - NIH – Colorado Clinical Translational Sciences Institute,
 - CDC – Community Transformation Grant)
 - Obesity and Cardiovascular Disease Risk community registries

Setbacks & Challenges



- ☕ Business intelligence is complex and highly dependent on expensive technology investments
- ☕ Creating partnerships for exchange of chronic disease data with community health care systems is time consuming
- ☕ HIE busy promoting EHR implementation for personal health care; limited resources for population-based activities at present (need common Master Person Index)

How & Why



- ☕ Shared Goal: Leverage business intelligence to improve population health
- ☕ Institutional Commitment to Work Together
 - Recognizing each other's expertise
 - Knowing how to build toward a common goal – business intelligence on an enterprise level
 - Leveraging the IT infrastructure to support personal and population health care (Patient relationship manager)
- ☕ Emphasis on 'Lean' and performance improvement
 - Focus on business processes, monitoring and efficiencies
 - Generate value by reducing waste
- ☕ Attract external partners with infrastructure capabilities

Funding



Early:

- HIV/AIDS expanded surveillance 1990-2003 (CDC)
- Advanced Practice Center 1999-2004 (CDC)
 - Initial work on syndromic surveillance
 - Establish ELR with CDPHE

Recent:

- Biosense Eval. 2006-2008 (CDC): syndromic surv. (JHU)
- Center of Excellence (CDC) – good surveillance efforts (U UT)

Current:

- Federated Queries (AHRQ): infrastructure (UCD)
- Community Transformation Grant (CDC) – leverage emerging HIE and EHR investment

Lessons Learned



- ☕ Find opportunities to interact
- ☕ Share ownership in grant applications
 - More than a letter of support
- ☕ Have periodic meetings, accountability
 - Project status updates
 - Semi-annual prioritization discussions
 - Assert needs
 - “What have you done for me lately?”

Lessons Learned: Love & Money



The engine needs fuel & oil

 Fuel: Dollars for people's time

- Most setbacks were from lack of resources

 Oil: trust & respect

- Learn the other's guiding principles
- Understand the other's responsibilities
- Know each side brings essential expertise
- Inform and involve each other in decision-making
- Foster ownership and control through proactive governance

Next Steps:

Getting to Distributed Products



- ☕ What role moves things from research or pilots to a product ready for distribution?
- ☕ How do we organize a system that goes from concept to product distribution?
 - Companies have research, development, and marketing
 - Universities have research
 - Health Department have operations

Development vs. Implementation



 Importance of Business Process Analysis

 Related Projects

- Business Process Library (JPHIT/PHII)

 - Catalog of PH business processes

- Problem Bank (coi-EPHI)

 - Catalog of PH informatics challenges

 - <http://www.phconnect.org/group/CoiePHI>

- Standards & Interoperability Framework (ONC)

 - To support EHR Meaningful Use data exchange

 - <http://wiki.siframework.org/>

Discussion



- ☕ Do these “lessons learned” reflect your experience?
- ☕ If these lessons are true, what could ISDS do to foster these relationships and collaborations?
 - What should researchers & practitioners understand about each other to work together more effectively?
 - How can we help make that happen?
- ☕ What is required (e.g., roles, resources, structures) to move successful or promising proof of concept efforts (e.g., research or pilot) to a functioning product for distribution?



Thank you!

Joe Gibson

JGibson@HHCorp.org

Art Davidson

adavidson@dhha.org