

OIT Senate Bill 07-196  
Health IT Advisory  
Committee



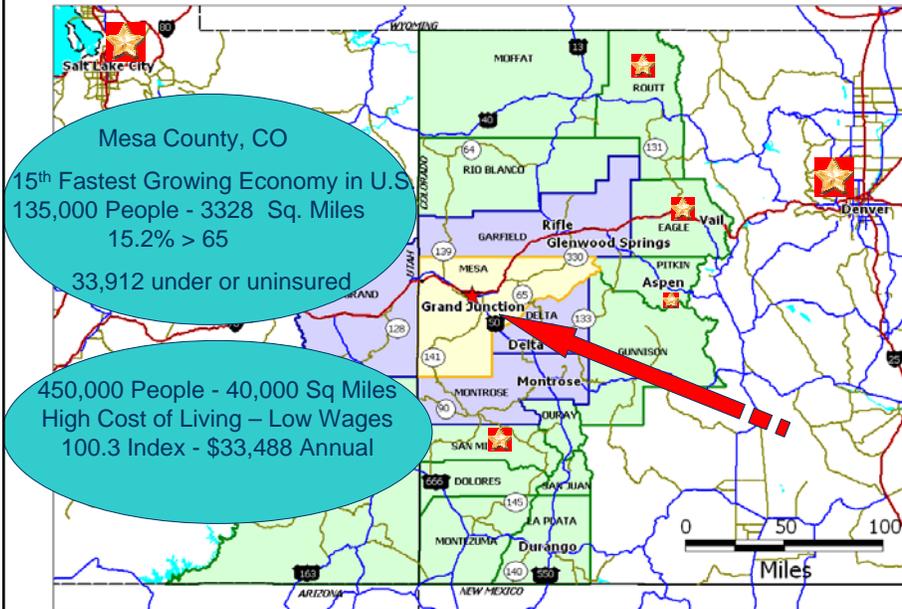
### Quality Improvement via Health Information Exchange

Incorporated - August 2004  
501(C)3 – December 2005  
Live Operations - October 2005

Dick Thompson, Executive Director/CEO  
July 2008 Review

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## Western Colorado & Eastern Utah Medical Trade Area <sup>2</sup>



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## Mesa County Medical “Neighborhood”

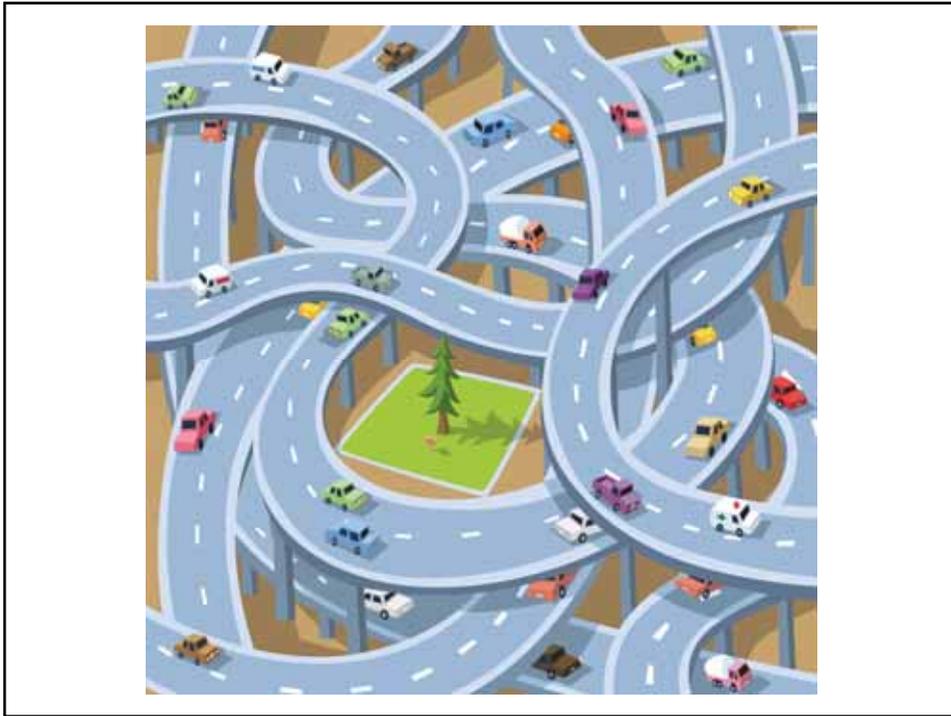
- “Urban” ☺ Care Center
  - Hospital Facilities
    - St Mary’s Hospital – 350 beds
    - Community Hospital – 70 beds
    - VA Hospital
    - Family Health West
  - Practicing Physicians
    - 362
  - Safety Net Clinics, Hospice, Extended Care, etc



## 2004 Funders & Founders (Competitors . . . & . . . Collaborators!) \$2.75 Million

- Mesa County Physicians IPA - \$1,050,000
- Hilltop Resources - \$50,000
- Rocky Mountain Health Plans - \$1,550,000
- St. Mary’s Regional Medical Center - \$50,000
- Community Hospital - \$50,000
  
- Quality Health Network Inc. – 501(c)3
  - Quality Improvement Focus
    - “A-political, Non-exclusive, Trusted Organization”



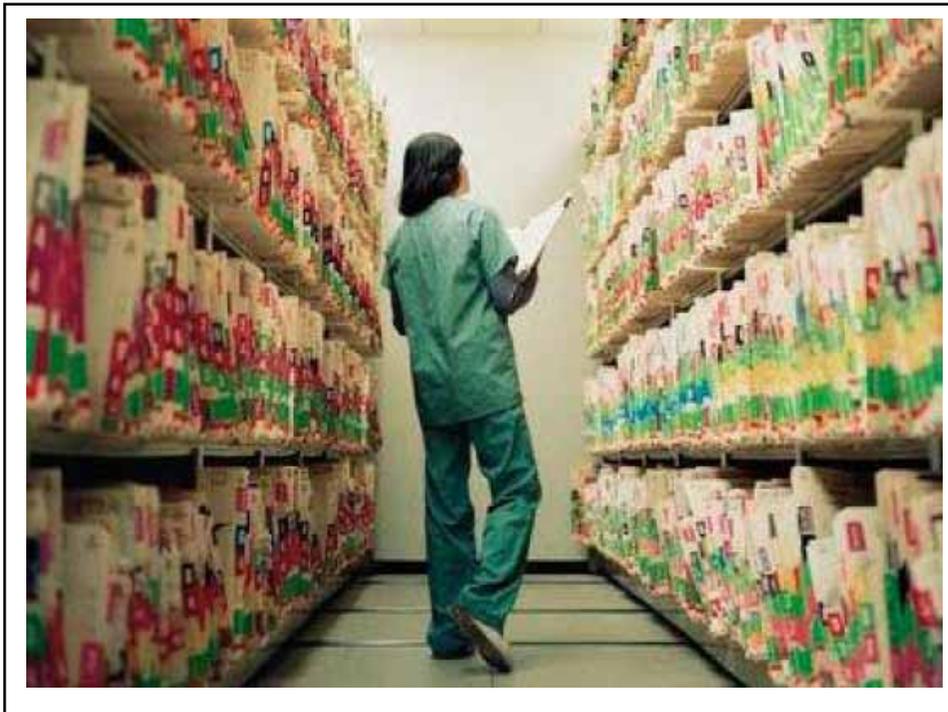


## Clinical Data Transition Problem

- Patients move between Providers & the data doesn't!
  - Fragmented Records an Increasing Problem
    - Primary Care
    - Specialists
    - Acute Care
    - Public Health, Veterans Administration, Behavioral Health
    - Home Health, Extended Care, Hospice, Safety Net Providers
    - “Doc in a Box” @ Retailers and Pharms
- Health Record “Islands of Information”
  - Both Paper & Many New Electronic Systems
- . . . And We have a Physician Shortage.
  - We Must Improve Efficiency!

## Three Excuse Categories:

- If only I'd have known!
- I Thought You Knew!
- Didn't I tell You?



## QHN “Platform” to Improve Care

- Connect Disparate Providers (“Virtual Clinic”)
- Create “No Wrong Door” Environment for Patients:
  - Shared Medication List
    - eRx
  - Shared Problems & Allergies List
  - Shared H & P, Progress Notes, Encounter Transcriptions
- “Break the Glass” Patient History
- Dr West: “Medicine is a Team Sport”



## Initiate Sustainable Reaction

- The “Critical Mass” Scenario
  - Enough data sources to compel physician connection
  - Enough physician connectivity to attract data sources
- Continuous Exchange Reaction Ensues



## 24 Month Plan: Improve Access to Data

### 1. Electronically Receive & Ship Clinical Data

- Single Point of Entry for all Sources & Receivers
  - Physician Centric as well as Patient Centric Data Views

### 2. Electronically Link Participants Together

- Simple & Low Cost Access for All
  - Clinical Data at the Point of Care
  - EMR-lite & e-Prescribing Tools
- Data to/from EMR Systems

### 3. Deploy Web-based Clinical Registry(s)

- Collect Practice Data & Report Outcomes

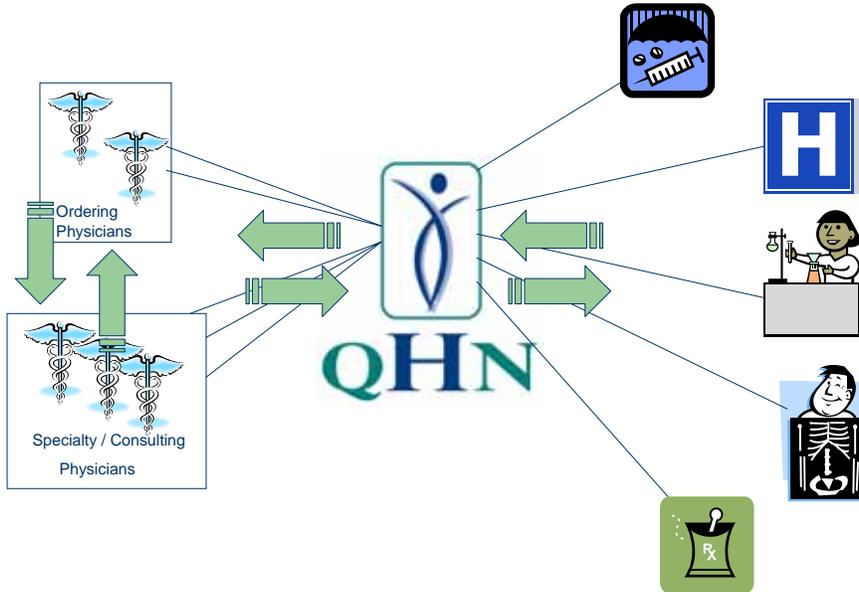


## Health Information Exchange – Legacy View



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# QHN: Establishing Standards



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14A The Daily Sentinel • Tuesday, June 1, 2000

## HEALTH & WELLNESS

# Health network sets new standards

By MICHELE BARRON  
The City Journalist

A multidisciplinary group of health care professionals in Meigs County is pushing the envelope of patient-centered care more efficiently, providing improved local care.

After several years of trial and error, the group of ordering physicians through the network, Quality Health Network, is now allowing physicians and other health care professionals to the local care center in Meigs County to work together more effectively.

As of 2000, St. Mary's and Community hospitals, along with other health care providers, have joined the network, according to Quality Health Network.

"I am very pleased," said Dr. Greg Becka, president of the Meigs Primary Care Physicians Practice Association and a family practice physician in Grand Junction.

Becka provided the example of how a group of ordering physicians can work together to provide better care for their patients.

With the network, each group of ordering physicians can work in a patient's home or at the hospital, and the network will coordinate the care, including lab work, imaging and other important health information that could be shared.

The network helps eliminate duplicate tests and the waiting period for laboratory results. The patient has one responsibility to find a good medical facility and coordinate specific medical services, he said.

As for the network, he said in Meigs County, the network has been successful.

The concept for Quality Health Network was developed in 2000, and the first transaction was in August 2001. From the 1990s to the late 1990s, Becka said, the network has been successful.

Quality Health Network is now in its second year of operation.

Becka said that the network is a success, and he is confident that it will continue to grow and improve in the future. He said that every physician in the county is in the network.

John Becka, retiring chief of staff at St. Mary's Hospital, is the network's president.

**DR. GREG BECKA TALKS ABOUT** how the Quality Health Network allows health care professionals in Meigs County to share patient information so they can reduce duplication in medical tests and provide better treatment. Becka is a family physician practicing in Grand Junction and president of the Meigs Primary Care Physicians Practice Association.

**GREG BECKA**, The City Journalist

QHN Confidential 

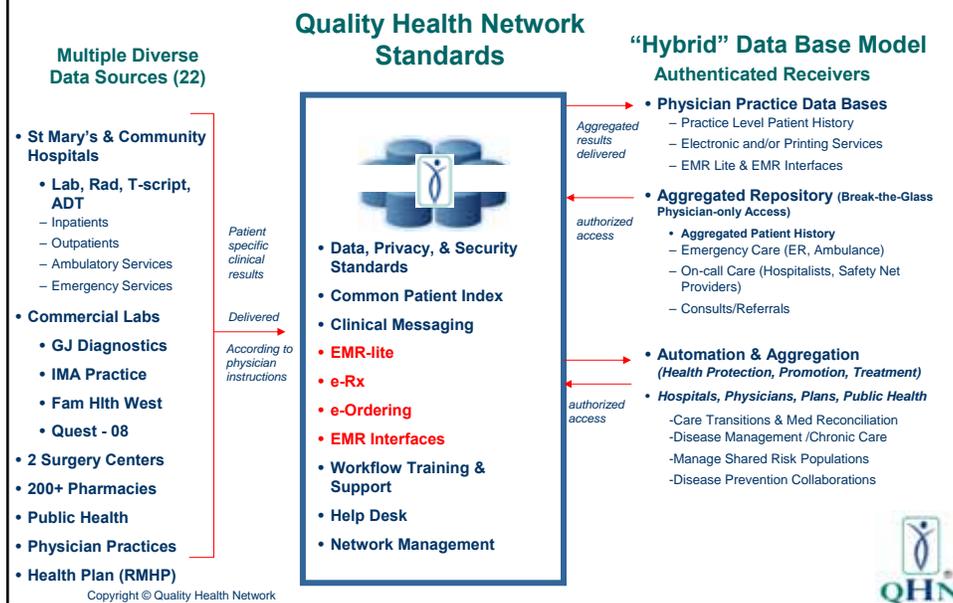
## Minimal Connection Requirements

- Low Cost Threshold
  - Internet Access
  - PC with Internet Browser
    - 128 bit encryption
  - Nominal Monthly License
- Source Clinical Data Infrastructure
  - Connection Engine Server & Software



# Shared Healthcare "Utility" Services

Live Operations October 13, 2005



## QHN Approach: Progressive Improvement

- Build Electronic Record from Data Suppliers
  - Wide Variety of Delivery Mechanisms
- Improve Data Management / Communication Processes
- Add Encounter Data – Transcription & Smart Forms
- Add Point of Service Data (Prescriptions, Orders)
- Add Clinical Decision Support
- Merge Paper and Electronic Processes
- Add Population Management

## QHN Health Information Exchange

Status: Live Operations 2 Years+

- Clinical Data Shipping & Receiving
  - Shared Electronic Health Records
  - 85% of Area Physicians & Staff are “connected”
- Electronic Care Coordination Center
  - Care Transitions Focus
    - Referrals & Consults
    - Discharge Planning & Care Plans
  - Medication Management & Reconciliation
    - Shared Problems, Allergies, Immunizations, Medications List
    - Electronic Prescribing
- Chronic Care Management



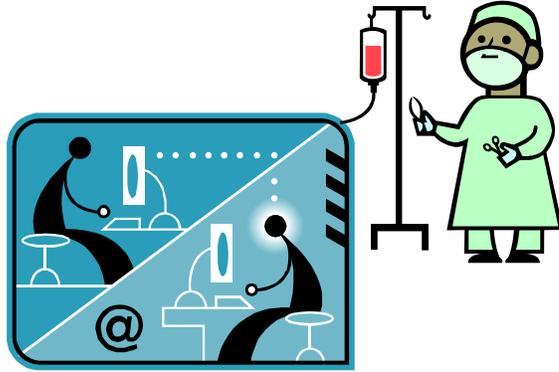
## QHN “Connected” Participants

300+ Providers – 1200+ online users

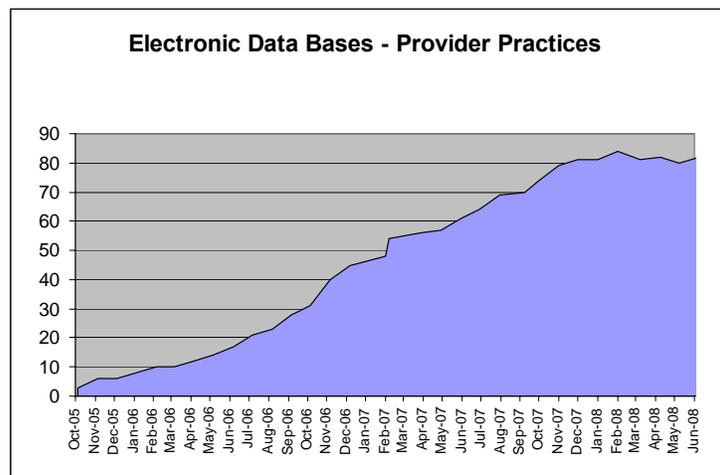
- Acute Care Hospitals
- Ambulatory Care
  - Primary & Specialty Care
- Urgent Care
- Extended Care
- Behavioral Health
- Public Health
- Surgical Centers
- Specialty Hospitals
- Reference Labs
- Home Health
- Pharmacies
- Payor
- Safety Net Providers
- Hospice
- . . . And Many more!



# Physicians are the Key Ingredient

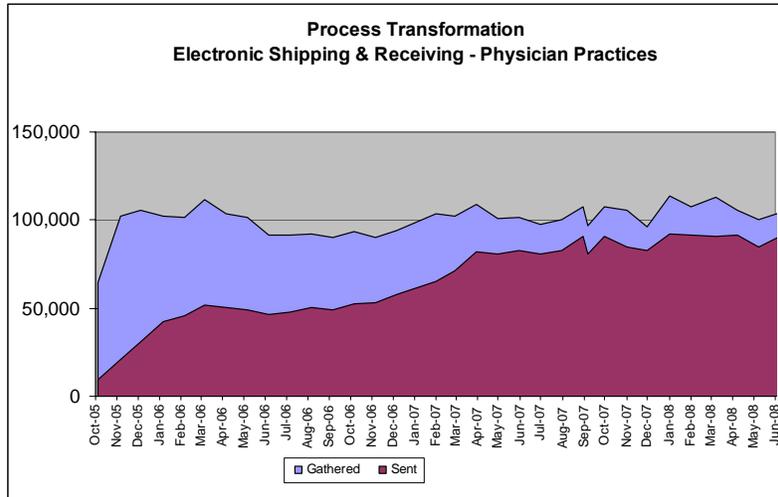


## A Growing Physician Electronic Network: 82 Practices: "Increase Access to Data"



335 Licensed Providers    1,364 Online Users    751 Fax Contacts

## Visible Efficiency Improvements 87% of Data Collected is Electronically Managed

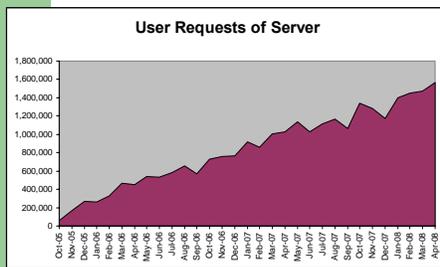


3,847,807 = Clinical Results Collected

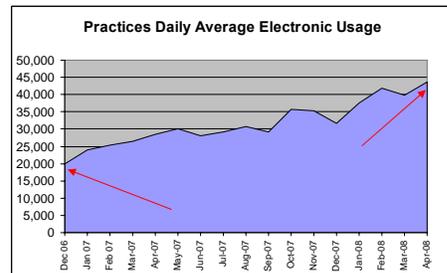
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## Improving Data Management



1,567,221 April Server Requests  
52,240 Requests per Day



Electronic Usage Per Practice **Doubled!**

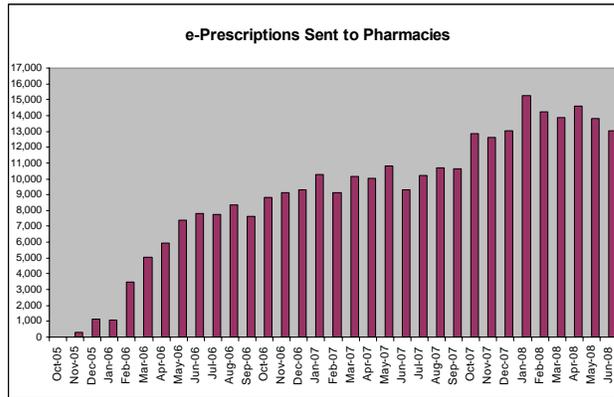




## Patient Safety: ≈14,000 e-Rx Monthly

“Increase Patient Safety & Satisfaction”

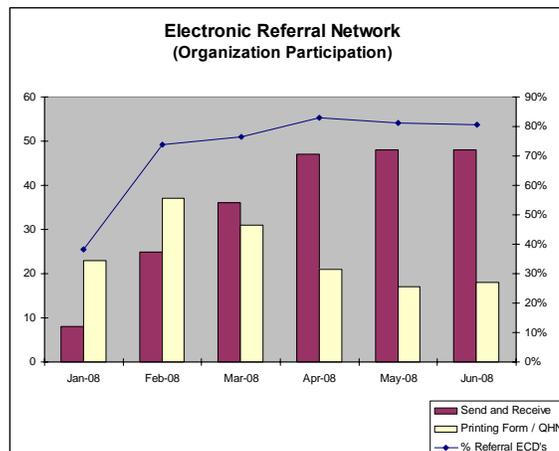
- Medication History
- Decision Support:
  - Interactions
  - Replications
  - Allergies
  - Dosage
  - Formulary
- Legible Script
- Cost Reductions
  - Generic Rx
- Prompt Delivery



2008 Target: Standardize Meds Reconciliation

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## Improving Access & Timeliness



## Who Benefits?

Physicians  
Patients & Payors  
Hospitals & Labs  
Pharmacies  
Other Allied Participants



QHN Confidential



Tuesday, June 5, 2007

Dr. Reicks (Family Practice Physician):

"I'm using the system in my office every day."

"Patient was seen in the ER at St Mary's last night . . . There was no information on the chart . . . I was able to log into QHN and pull the lab and x-ray . . . In the old days it would have take half a day to get that . . . .that information has been a tremendous benefit to workflow"

"I'm using the system in my office every day," says Gregory Reicks, DO, president of the boards of both QHN and Mesa County Physicians. "I just used it this morning with a patient who was seen in the ER at St. Mary's last night. There was no information on the chart of any tests and I was able to log into QHN and pull the lab data and x-ray. It saved me a lot of time. In the old days it would have taken half a day to get that information and it may not have done any good by the time it was available. Just having access to that information has been a tremendous benefit to workflow," says the family practitioner.

"I can have anything I need to make clinical decisions at the time of seeing the patient. I just sat down at the computer with the Internet connection. Plus, I was able to put the case into perspective because I saw all lab and x-ray data," says Reicks.

A next step is to fully connect to doctors in the wider community. "We still have some physicians not on the system. Then we'll become a truly regional health information exchange. Grand Junction is the center of health care in the area. There's lots of migration of patients from surrounding communities," he notes.

October 2006

## A SUCCESS STORY WITH QHN AND SMFM

“Using QHN to process our referrals has definitely been a success for SMFM. We do hundred’s of referrals weekly and one person was having difficulty keeping up with the volume. Between making the appointments, tracking to make sure the appointments were kept and getting the paperwork to the referral offices, one person was overwhelmed. By electronically sending the referrals with the paperwork needed, **we have been able to eliminate the referral coordinator position and add one more nurse to our team.** The nurses now send and track referrals for their team of 3 providers because they can do it electronically. We have worked out the process so we can meet the needs of the offices where our referrals are sent and to be more efficient in getting signed orders and the necessary paperwork to the offices.”

*Elaine Harris*  
Practice Manager

**From:** Heather Lee [Heather.Lee@mesacounty.us]  
**Sent:** Friday, January 12, 2007 10:29 AM  
**To:** Cindy Holst; Deb Tittle; Dr A; Judith Cook; Kristy Watkins; Sue Kiser; Dick Thompson; Michelle Quigley; Teri Coons  
**Subject:** Pneumonia clinic 1/11

“ . . . 80 y/o woman . . .after looking up her immunization history in QHN . . .she had already received 2 pneumonia vaccination in the past 12 months, this would have been her third! So this system really works.”

Good Morning!

I just wanted to give a little feedback on the pneumonia clinic Judith and I did yesterday. It started out a little slow, but we ended up doing a total of 36 pneumonia vaccination for the day.

I was pleasantly surprised at the number of people who were in QHN. Of the 36 we looked up, I only had to create 1 new patient, the rest were in there. I also checked the demographic information compared to what was on their immunization record and that was correct on all of them (not always so in CIIS). The system was very user friendly and I had no problems navigating around or inputting data.

As for who needs access to QHN pneumonia information, I think the nurses who give immunizations need to be able to look up each patient before they give the vaccination. We found 4 patients that signed up for the vaccination and after looking up their QHN immunization history, did not qualify for the shot. I don't think the front office staff, at this point, needs to be able to access that information since immunization information is at the clinical level of access. I had an 80 y/o woman come in and she signed up for the shot and after looking up her immunization history in QHN, she had already received 2 pneumonia vaccination in the past 12 months, this would have been her third! So this system really works.



**St. Mary's Family Medicine Center Celebrates First anniversary with Quality Health Network (QHN) Regional Health Information Organization Software**

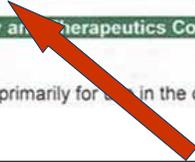
The implementation of this new computer system and revised work processes required the coordinated efforts of all providers and staff. Today all physicians and staff members of the practice are successfully using the system to manage electronically reported results, intra-office communications, patient referrals and electronic prescriptions. Patient allergies, problem lists and medication lists are also managed using the system.

Key benefits of using this system include improved turn around time in getting clinical messages to providers and patients, approximately 500 less chart pulls per day for the staff, increased patient satisfaction, and decreased costs for the practice.

**News from the Pharmacy and Therapeutics Committee**

**Additions to the formulary**

1. Rotavirus oral vaccine (Rotateq): primarily for use in the outpatient setting



## Nationwide Health Information Network



- Establish & Demonstrate Prototype Standards (Executive Order: April 27, 2004)
- Grand Junction - "Demonstration Community"
  - January 25<sup>th</sup>, 2007 – Washington DC
  - Dr Greg Reicks

# NHIN Prototype Demonstration



## U.S. Department of Health and Human Services



### COMMUNITY LEADER FOR VALUE-DRIVEN HEALTH CARE CERTIFICATE OF RECOGNITION

Presented to:

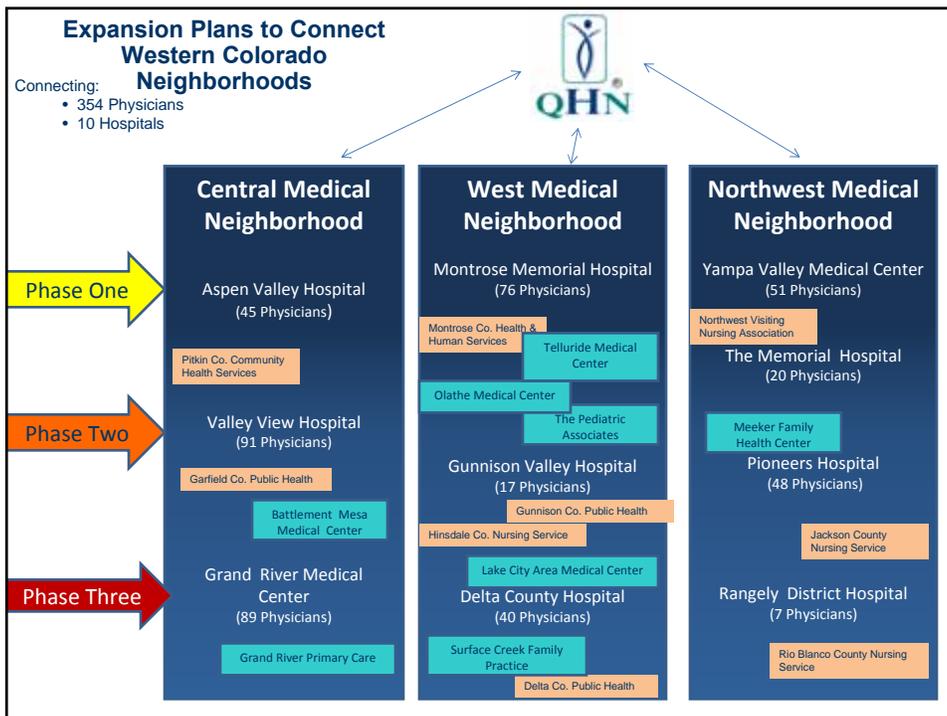
*Quality Health Network*

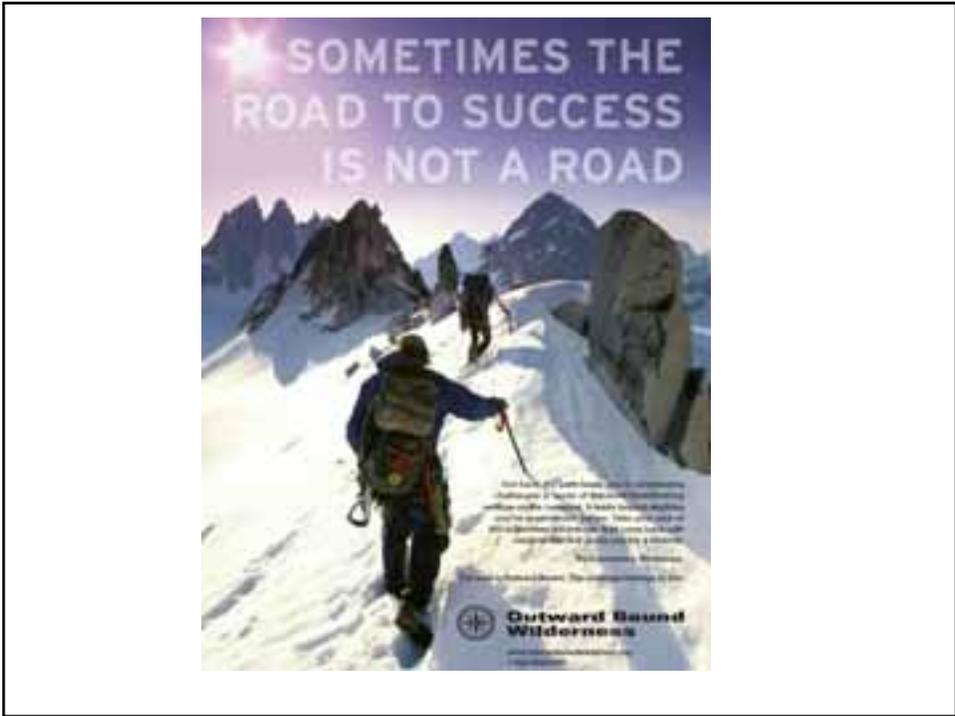
The Secretary of the U.S. Department of Health and Human Services hereby recognizes Quality Health Network as a Community Leader for its commitment to the transformation of the U.S. health-care system. The Secretary recognizes the

## Mesa County – Decades of Innovation: RMHP & Mesa County Physicians IPA

- May 2006 Dartmouth / RW Johnson Study
  - Comprehensive Medicare Study
    - 12 chronic diseases

“the most cost effective delivery of services in the country was in Mesa County, CO”





Thank You!

