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LCF RESEARCH

Agenda for this presentation

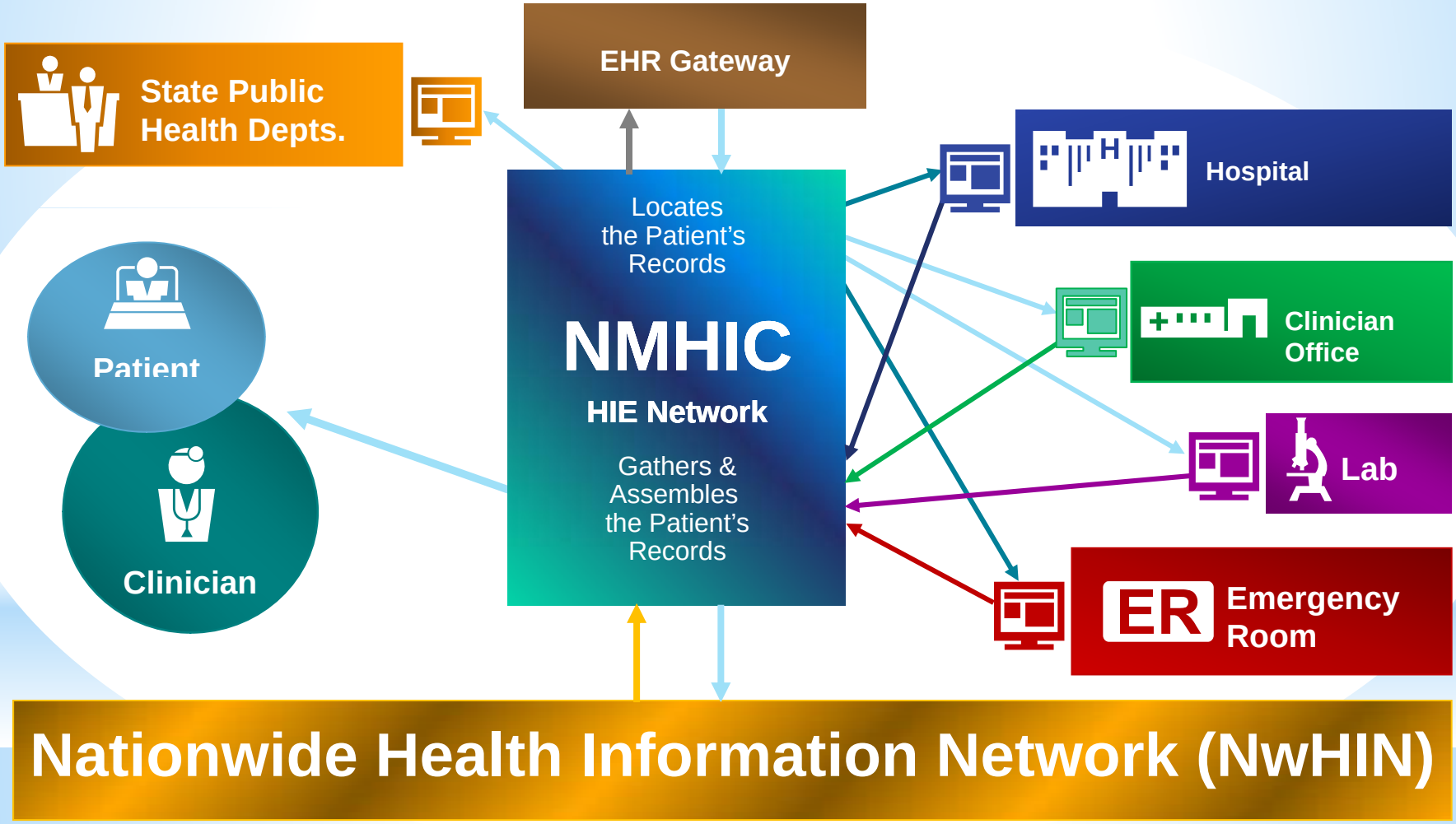
* New Mexico Health Information Collaborative (NMHIC)
  * What is an HIE
  * Why the NMHIC HIE was created
  * How NMHIC works
  * Who provides the patient information
  * Who currently has access/value to this information
  * Privacy and Security
* A New Improved Platform for NMHIC
* Why do we need Telehealth and Health Information Exchange (HIE): Connecting New Mexicans to Quality Healthcare
* Telehealth Status in NM
* How the NM Legislature can help

Health Information Exchange (HIE)

* An HIE Solution brings health information systems together across regions and states in order to provide access to a patient's information in one centralized record.
* Multiple healthcare providers with access to the same record of clinical information will make healthcare delivery more robust and efficient. The benefits to patients, healthcare providers, payers and employers is endless.
* Explained in this presentation are some of the expected and tested benefits from the healthcare provider perspective, and some of the highlights of **what** you can expect with the HIE.

*How the NMHIC HIE Works

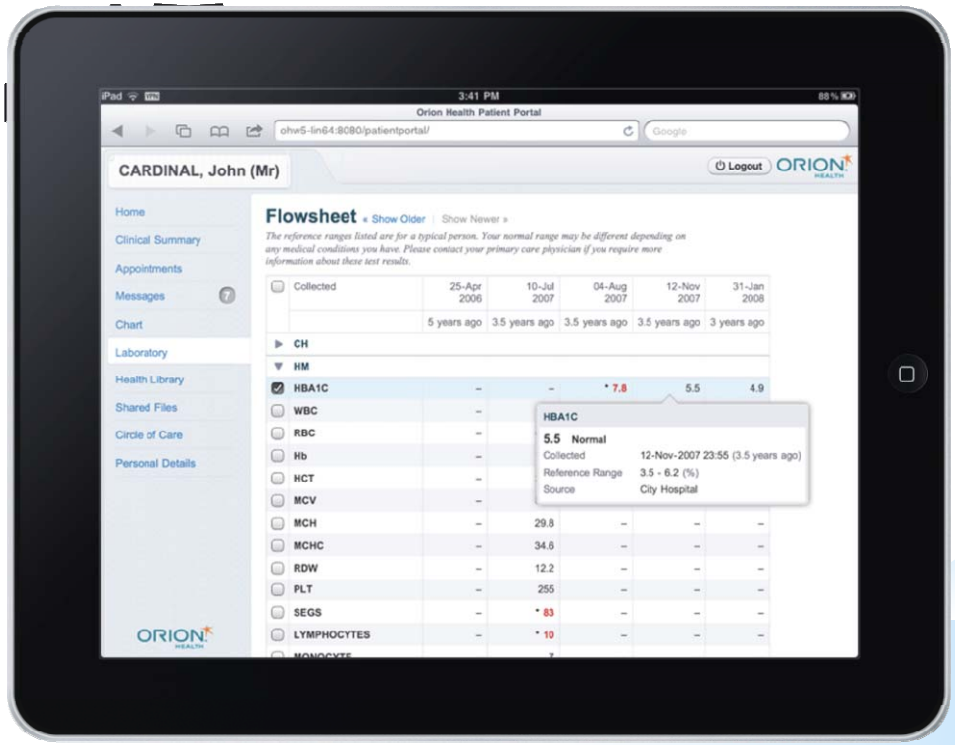
Clinician Requests Access to Patient Records with Patient Consent



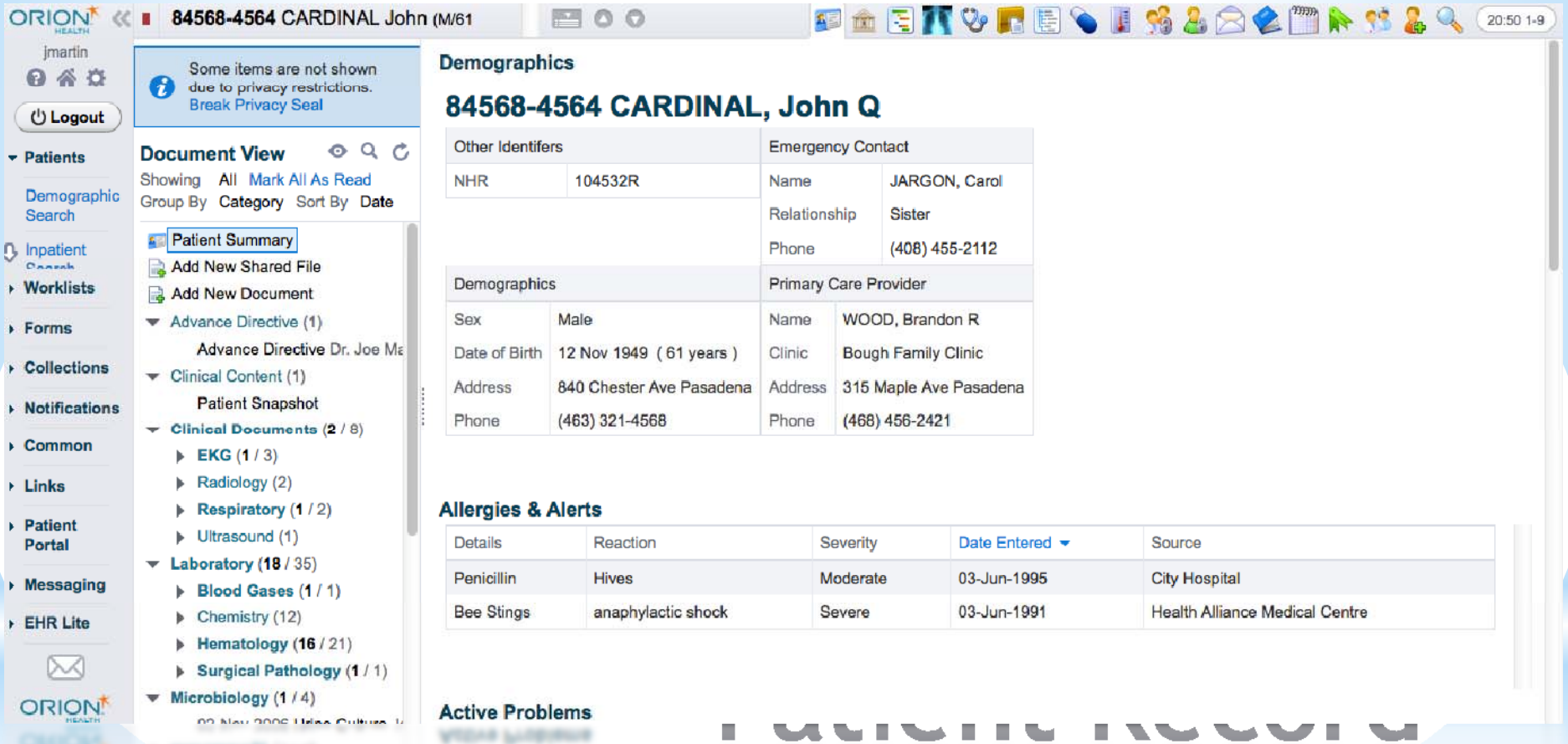
*Why the HIE is accessed?

When and why a Provider needs to access the HIE:

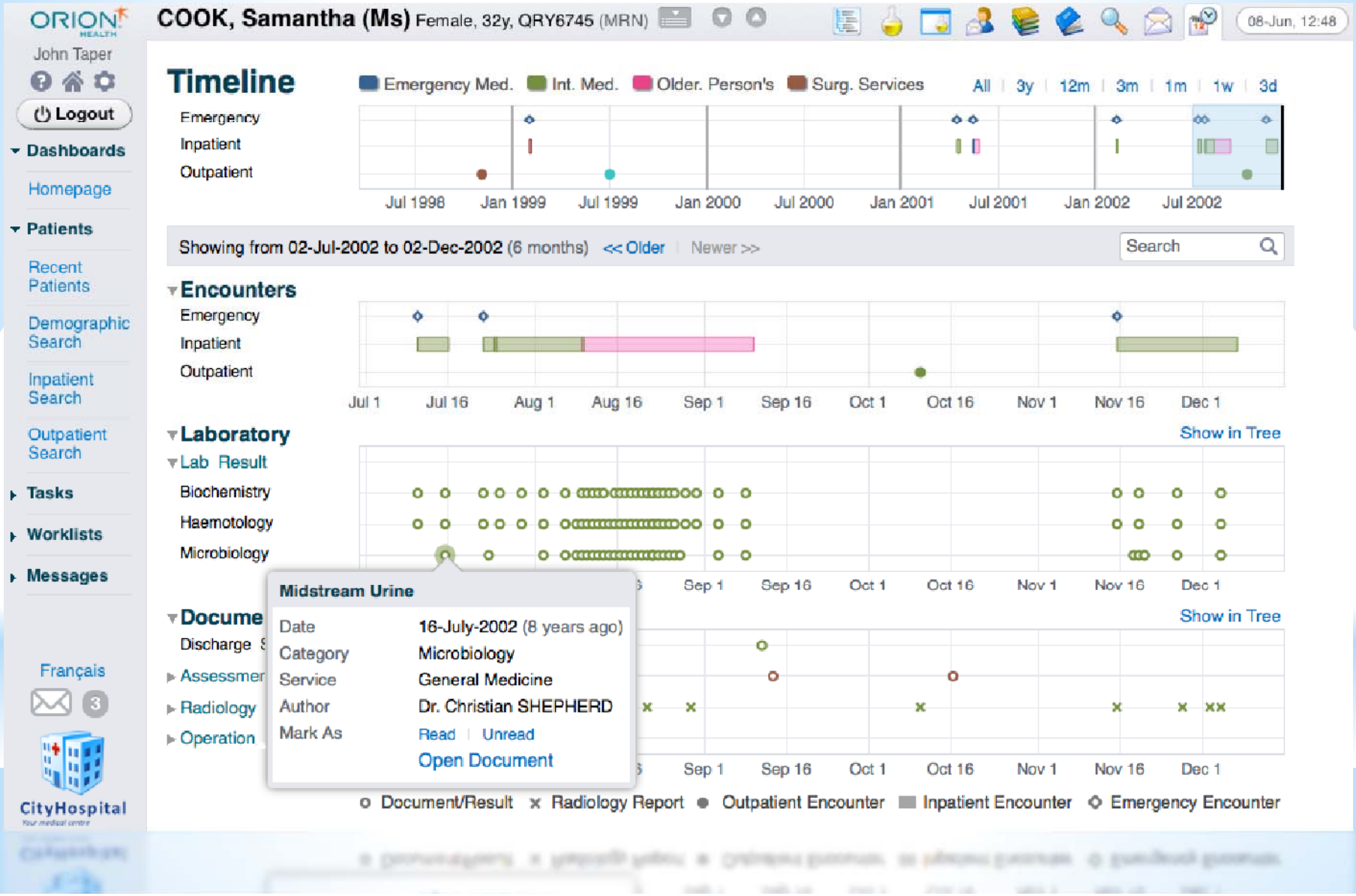
* New patient, not seen before
* Infrequent patient
* Patient known to have received care elsewhere
* Complex patient
* Tracking of patient
* Patient ER visits and hospital stays
* EHR is unavailable
* Remote Access



*Unified Long



*Timeline View



Most common measures

*LCF Research Overview

Independent 501 (c) (3) non-profit org founded in 1990.

Mission: health services research, public health research, health information technology, and education

Two primary divisions

Health Information Technology (HIE Network and NMHITREC)

Research and Education (HSRD)

Personnel: 30

Governance:

- Governed by a large, diverse statewide board representing many stakeholders, public and private, urban and rural
- State government, health systems, payers, hospitals, medical groups, health professional assns., employers, large testing labs, consumers

Why/How NMHIC Was Created

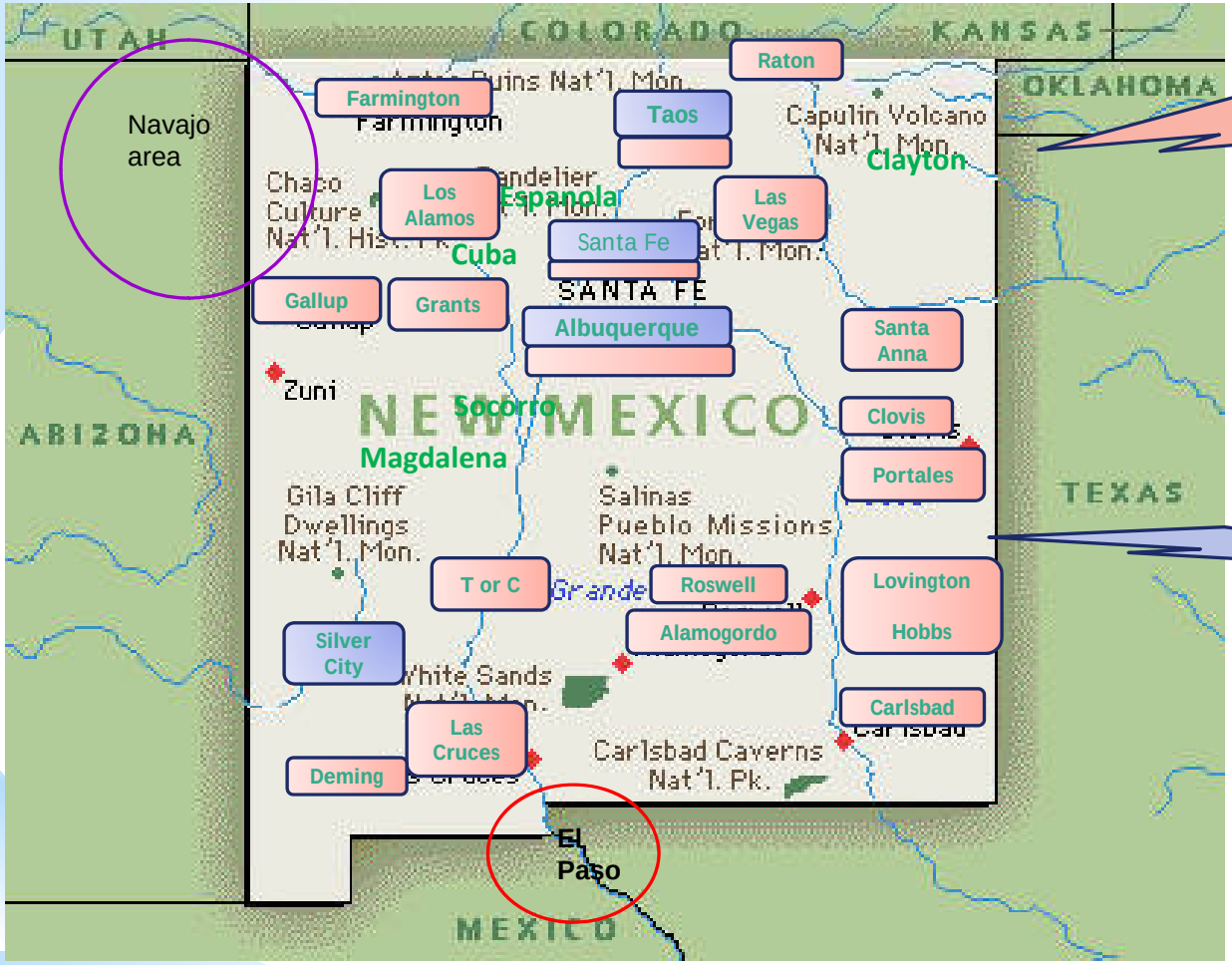
Influence of State and Federal Government

- Federal Programs supported development of state and regional HIE networks
  - HITECH provisions within ARRA (stimulus package)
  - Role of the State HIE network under HITECH is to provide:
    - Care Coordination among providers
    - Reporting to Public Health
    - Reporting of Quality Measures to Medicare & Medicaid
  - State designated NMHIC as HIE network for HITECH
  - Expand HIE to serve rural and underserved populations
- NMHIC received funds through ONC, AHRQ, New Mexico State Legislature and community stakeholders
- NMHIC was also awarded a contract to send patient information for Disability Determination to SSA over the Nationwide Health Information Network (NwHIN)

Who Provides the Data currently

- Health care providers
  - Presbyterian Hospitals and Medical Groups
  - Lovelace Hospitals
  - UNMH
  - ABQ Health Partners
  - CHRISTUS St. Vincent Hospital and Medical Group
  - Holy Cross Hospital, Taos
  - Other health care providers will be added
- Independent Laboratories
  - Tricore
  - SED (now Quest Labs)
  - LabCorp
  - NM Scientific Laboratory Division – for public health only

*The HIE in New Mexico



VA

SSA

Established HIE connectivity

Future HIE connectivity (random sample of sites)

HITREC sites (random sample of sites)

Who Has Access to NMHIC Data

- NM Department of Health in accordance with state public health reporting laws and with the consent of the data provider
  - Lab results of reportable conditions
  - Encounter information from emergency departments
  - Immunization data for State Immunization Registry
- SSA is receiving patient info from NMHIC over the NwHIN for Disability Determination
- Providers are now beginning to access patient info
  - Emergency Departments; UNMH and soon Lovelace and Presbyterian

Value/Benefits of HIE in ED

- Access to each patient's health information
- Improved situational awareness regarding patient's health and use of health systems, better coordination of care
- Better triage and evaluation capability: Access to Diagnoses/Problem list, Prior Procedures, Medications, Allergies, Tests; lab/x-ray
- Improved efficiency in making diagnosis and management plans
- Decrease unnecessary duplication of tests
- Admission/Readmission avoidance

NMHIC Benefits in UNMH ED

* 1) A patient had been at another facility recently and indicated Gall Bladder surgery might be needed. When NMHIC was accessed, the ED providers were able to see all of the details for his recent visit at the other facility which was very helpful in determining the actual diagnosis and that the patient did not need the surgery, as well as prevented some unnecessary redundant testing.
* 2) A case where the patient had long standing back issues. In NMHIC there was a recent CT scan that saved them from doing another CT scan and avoided more radiation to the patient
* 3) In a complicated case on one patient, NMHIC had notes of a recent lung biopsy that helped with the remainder of the evaluation. Saved many additional tests and significant time if they hadn't had that information on the lung biopsy
* 4) In another case, a mass was felt on the patient's rib. A prior x-ray report in NMHIC indicated that the rib had a previous fracture explaining the problem and avoided doing a CT scan that they would have otherwise done.
* 5) A patient with a complicated cardiac history had been discharged from another hospital within the last 48 hours. In NMHIC, able to access the discharge summary and saw the complete work up that was done, which avoided doing many additional tests and again saved a significant amount of time.

Privacy and Security

- Privacy and security protections
  - All NMHIC participants sign Network Subscription Agreement (NSA)
  - Requires user authorization and authentication
  - Prerequisite of written patient consent recorded in NMHIC
  - Patient information encrypted in motion and at rest
  - Audit logs of all transactions

New Enhanced State-of-the-art HIE Platform for NMHIC

www.orionhealth.com

Integrating the HIE with the EHR

ORION HEALTH

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Orion Health HIE Products

HIE Base Solution

- Clinical Portal with Results Viewer
- Clinical Data Repository
- Rhapsody Interface Engine
- EMPI – Enterprise Master Patient Index
- Health Languages

HIE Module

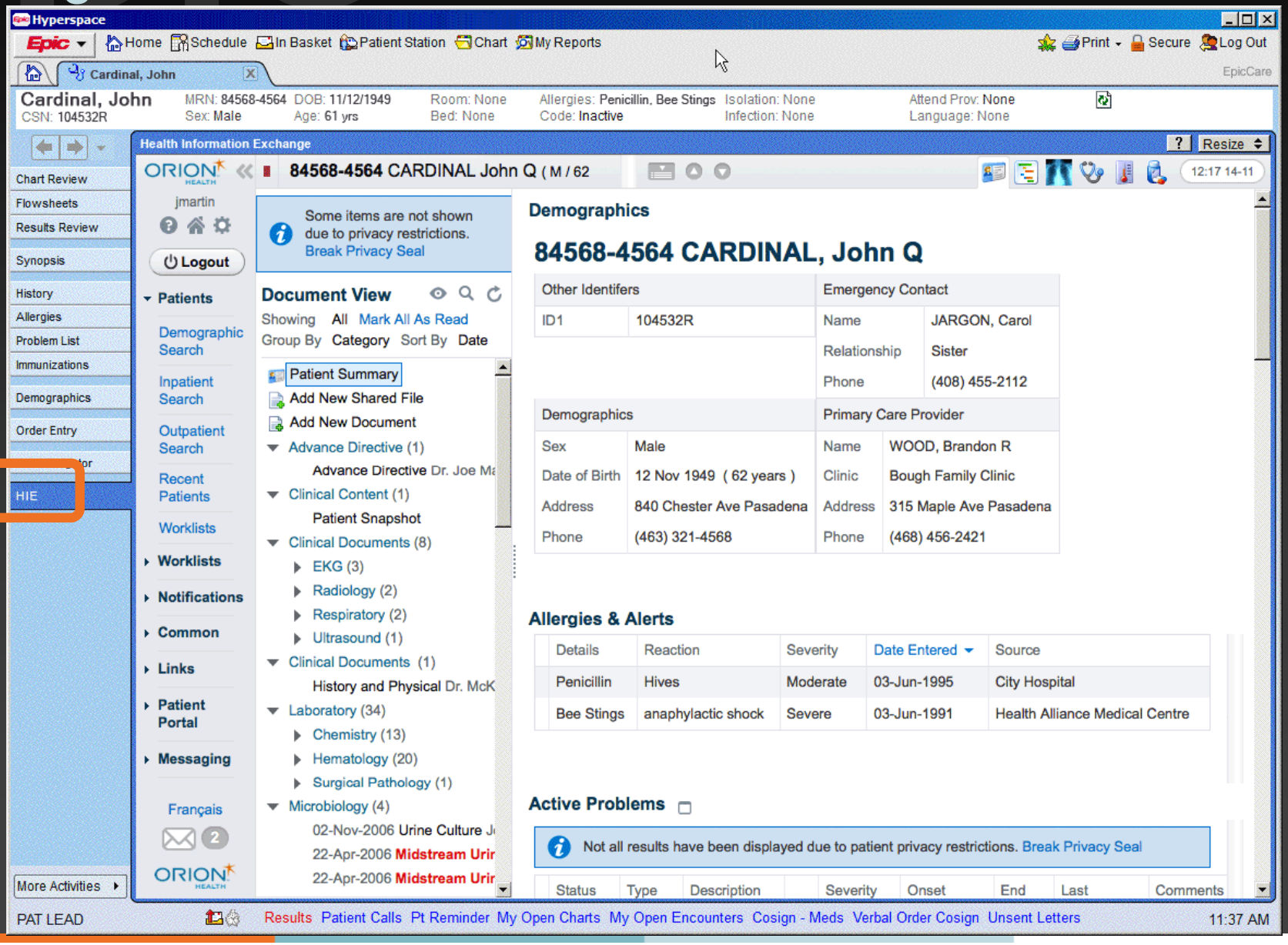
- CCD Exchange
- Notifications
- Send to my EHR
- Direct Secure Messaging
- Single Sign-On form EHRs
- Privacy & Consent
- Auditing

Additional Modules

- Case Management
- OHBI – Meaningful Use Dashboards, HIE Utilization Analytics
- Public Health Reporting
  - Electronic Laboratory Reporting (ELR) Profile
  - CSTE Case Reporting Profile
  - Hospital Acquired Infection Profile
  - Biosurveillance Profile
  - Immunization Registry Profile
  - Discharge Reporting Profile
  - + custom reporting
- Patient portal
- NwHIN
- EHR Lite
- Diagnostic Orders
- ePrescribe

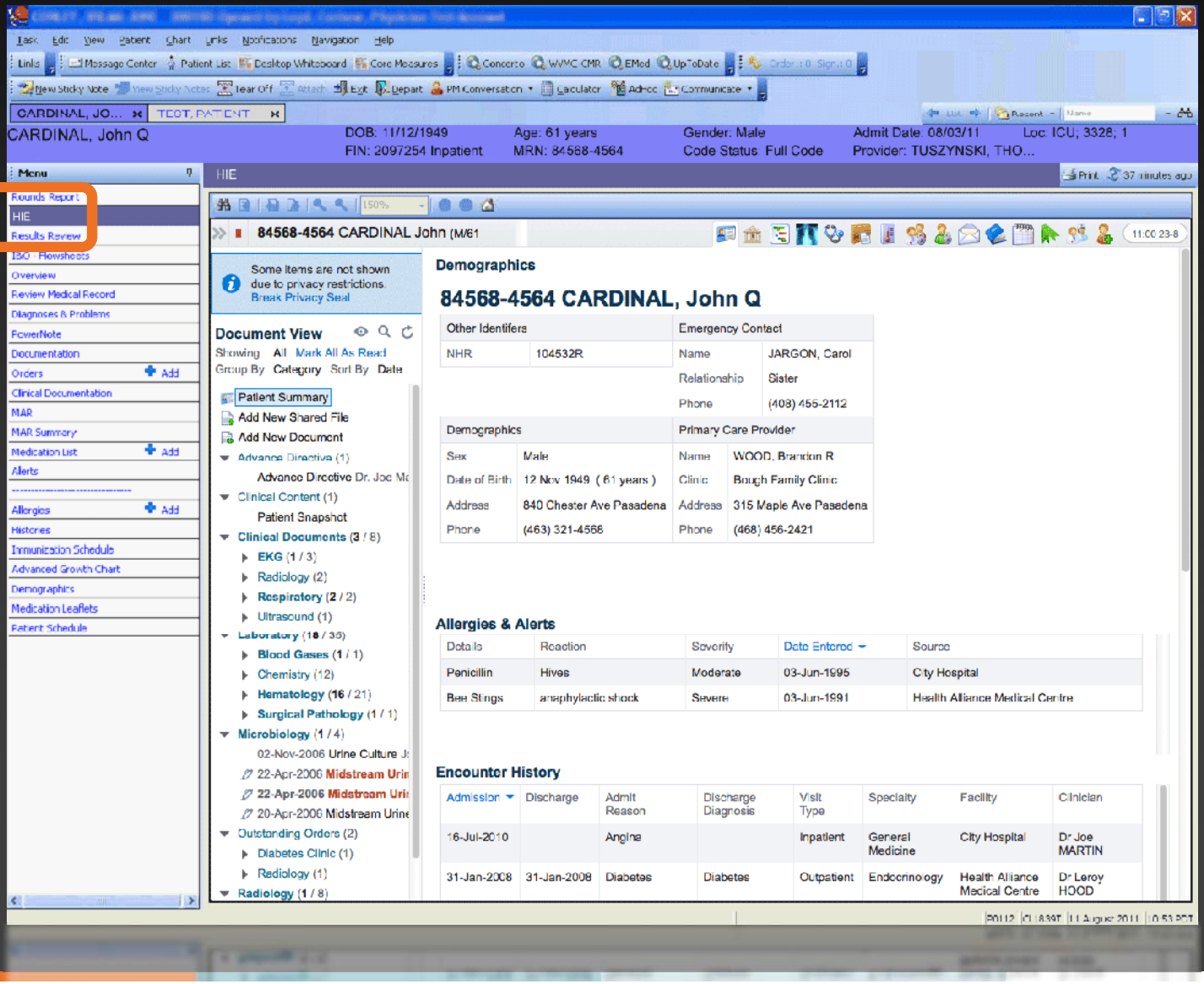
Example Integration (Epic)

Single Click access to Clinical Portal



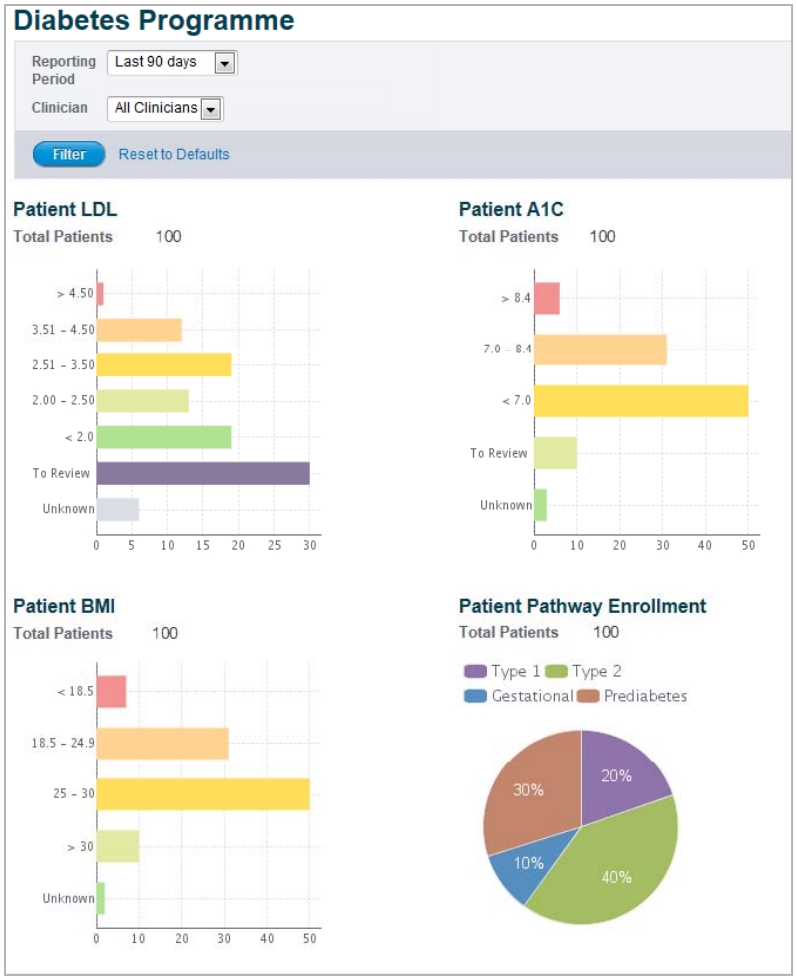
Example Integration (Cerner)

Single Click access to Clinical Portal



User Interaction Dashboards

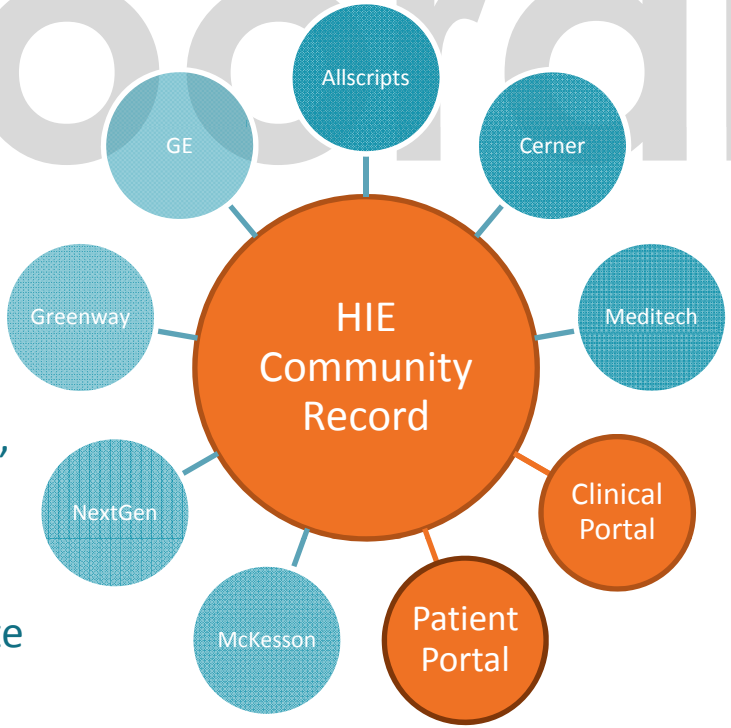
- Diabetes Program
  - Displays patient outcome measures
  - Population wide statistics
    - LBL
    - HbA1c
    - BMI
    - Pathway enrollment
  - Drill down to patient lists



Quality Measures Dashboard

Care Coordination

- Link pertinent patient information to care providers cross the healthcare continuum
  - Use of **historical information** in the patient's care continuum in order to provide appropriate diagnosis, treatment and care
  - Better **rightsiting** of patients in order to expedite appropriate care and treatment
  - Utilize **secure messaging** for referrals across disparate care settings
  - Set up **notifications** for when your patients enter a Hospital, visits an Emergency room, see another provider, or move from one healthcare facility to another
  - Utilize the **direct messaging** email option with providers who do not participate in the HIE
  - Connect to the **Nationwide Health Information Network** (NwHIN) to exchange information with federal organizations as well.



Time line to sustainable HIE...

Federated HIE Model

- Current State

HIE Hybrid Model

- Basic Data Set : Clinical Portal, Notifications, CCD, Send to my EHR, Direct Messaging

HIE ++ Centralized Model

- Enhanced Data Set : Case Management, Patient Portal, OHBI, EHR Lite

Sustainable HIE

- Use of the previous stages makes the HIE adoption rates increase and makes it sustainable...

HIE Stages

Implementation in terms of stages

90 Days to implement

1. Data Exchange

- Message exchange (Rhapsody)
- EMPI, RLS
- Secure Messaging (DIRECT)
- Privacy & Consent

2. Data Aggregation

- CDR(s)
- Semantic Interoperability

3. Information Sharing

- Unified, longitudinal patient record (Clinical Portal)
- Notifications

4. Advanced HIE

- Image Viewer
- Disease Management
- Population Health
- Reporting & Analytics
- Patient Portal
- EMR Lite
- NwHIN Gateway
- Public Health Reporting

Clinical – Functionality Progression

Phase 1

Clinical Connectivity

- Clinical Portal
- Notifications
- CCD Exchange
- Send to my EHR
- Direct Secure Messaging
- Single Sign-On
- Privacy & Consent

Phase 2

Clnical Integration

- Diagnostic Orders
- ePrescribe

Phase 3

Longitudinal Patient Record

- Case Management
- OHBI – Meaningful Use Dashboards, HIE Utilization Analytics
- EHR Lite
- Public Health Reporting

Phase 4

Community Integration

- Patient portal
- NwHIN
- Payer integration (Rhapsody – display in clinical portal)

Navigating the Perfect Storm with Telemedicine & HIT

Major Public Health Issues Impacting our Rural Communities and their Economic Development

Gaps in Access to Health Services in Rural New Mexico

- Hepatitis C
- Behavioral Health
- Diabetes
- Asthma
- Cancer
- Oral Health
- Cardiac and Stroke Care

Health Care Reform/PPACA
Economic Downturn
Need for more Access to Care
An Aging Population/Baby Boomers
Critical Shortage of Healthcare Providers
EHR Adoption/HIE
Meaningful Use
ICD10
PCMH
ACOs
Emerging Enabling Information Communication Technologies
A Time for Telemedicine & HIT
THE PERFECT STORM

Critical Gaps in Health Expertise and Services in New Mexico

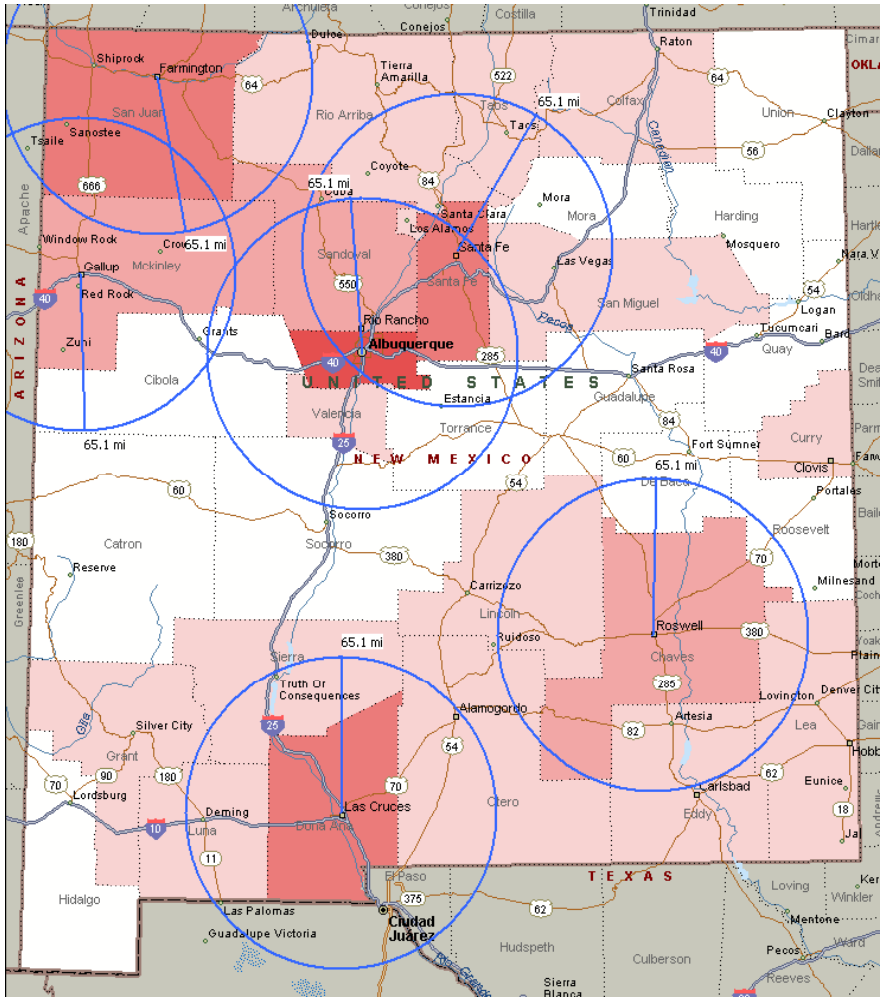
- Mal-distribution of Providers
- Lack of Access to Health Services in Rural Communities

✓ **Only 3/33 counties**
exceed the National average of physicians per 100,000 population

✓ **64%** of physicians practice in **3/33** counties.

✓ These three counties comprise only **39%** of New Mexico's Population

Mal-distribution of Health Specialty Providers in New Mexico



The blue circles indicate 65 mile distances from the 6 major specialist centers

- Albuquerque
- Santa Fe
- Las Cruces
- Farmington
- Gallup
- Roswell

NMBME 2003

Telehealth and HIE

- Telehealth and HIE should be closely linked as a means to improve access, enhance continuity of coordinated comprehensive quality care, support patients and providers at the site of care, as a means to achieve the best health outcomes and reduce costs

Patient-Centered Medical Home

- A Patient-Centered Medical Home is a team-based model of care usually led by a personal physician that provides, **comprehensive, continuous and coordinated care** throughout a patient's lifetime to maximize health outcomes.

Patient-Centered Medical Home and Accountable Care Organizations

- Not only can care be better coordinated, but **Telemedicine, Electronic Health Record (EHR), and Health Information Exchange (HIE)** can incorporate evidence-based best practices, decision support, prevention, earlier detection of a problem, and earlier intervention
- Decreasing Unnecessary Hospitalization
- Decreasing Duplication of Tests
- Decreasing Errors

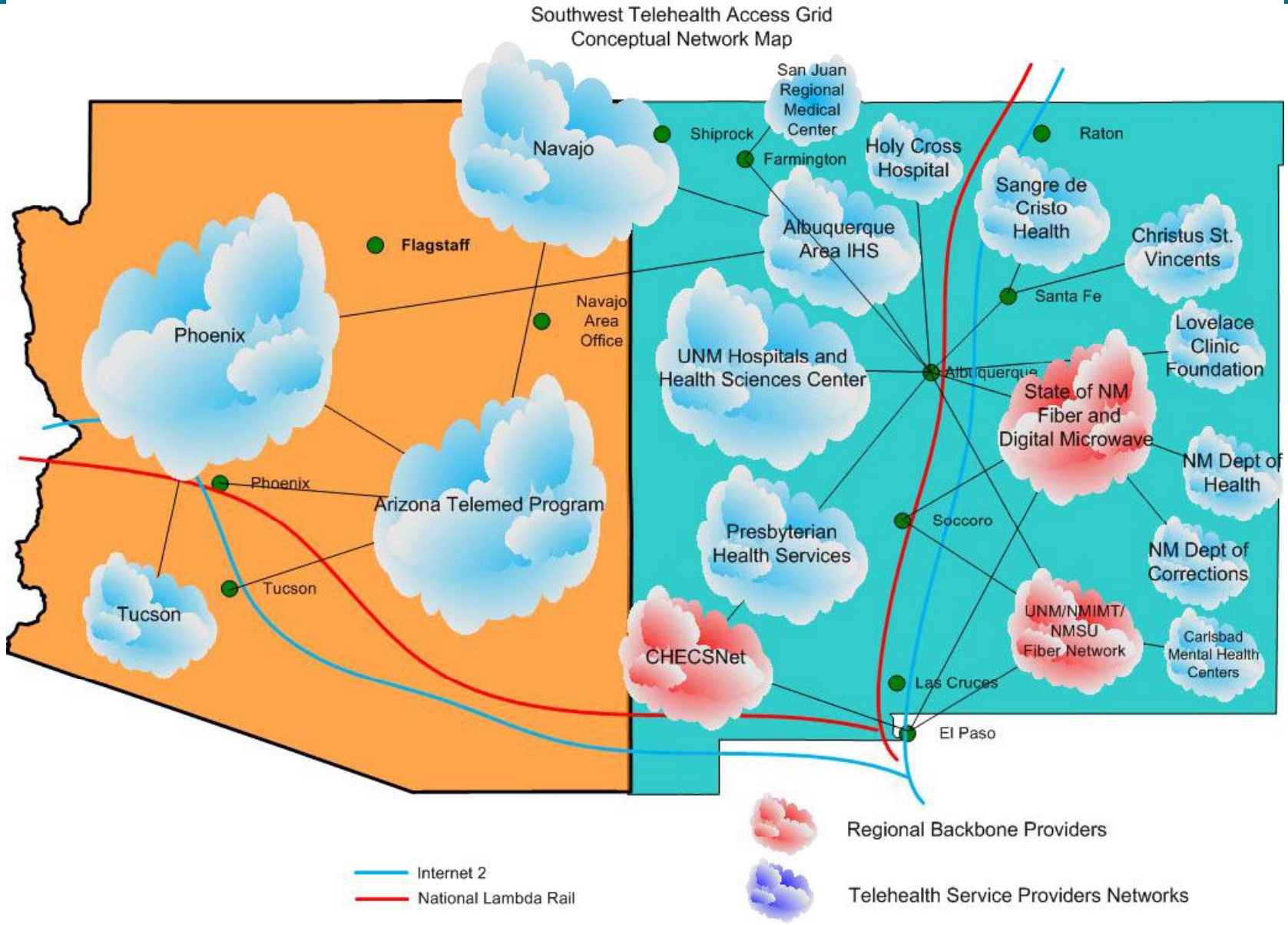
Center for Telehealth and Cybermedicine Research

http://som.unm.edu/telehealth/

The ***Center*** for Telehealth
at UNM Health Sciences Center:

- Developing New Programs
- Technical, Operational, Business, and Evaluation Planning

Southwest Telehealth Access Grid (SWTAG): a "Network of Networks" that can support both Telehealth and HIE



Awarded $15.5 million to cover 85% of build-out and operations of broadband networks for healthcare

The New Mexico Telehealth Alliance

Telehealth Alliance

"Networks of Networks"

- Represents a consortium of public and private health care stakeholders: "Neutral Territory" (501c3)
- Reflects the diversity of our health care delivery system in New Mexico
- Enables collaboration

✓Providers

✓Consumers

✓Telehealth Expertise

✓Communication Networks

✓Social Networks

How the NM Legislature can Help

- Continue to recognize NMHIC as the State HIE
- Continue to support legislation that improves the consent and authorization process at the points of service
- Understand the benefit and support participation for all citizens of New Mexico as well as all those who deliver care
- Work with NMHIC to establish mechanisms to sustain the state HIE and demonstrate effectiveness
- Insure reimbursement for telehealth encounters (Reintroduce Bill [HB 0591] to require coverage for telemedicine services)
- Maintain support for UNM Center for Telehealth as developer of new telehealth programs
- Establish the Telehealth Alliance as the State's overall Telehealth Resource Center

Questions?