



The Santa Barbara County Care Data Exchange

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The Santa Barbara County Care Data Exchange

- Formed in 1998 by leading public and private health care organizations throughout Santa Barbara County
- A county-wide organization aimed at improving the health status of all Santa Barbara residents
- A “public utility” available to all physicians, caregivers and consumers
- Rapid and secure delivery of patient data to authorized users who have informed consent
- Initial sponsorship from the California Health Care Foundation

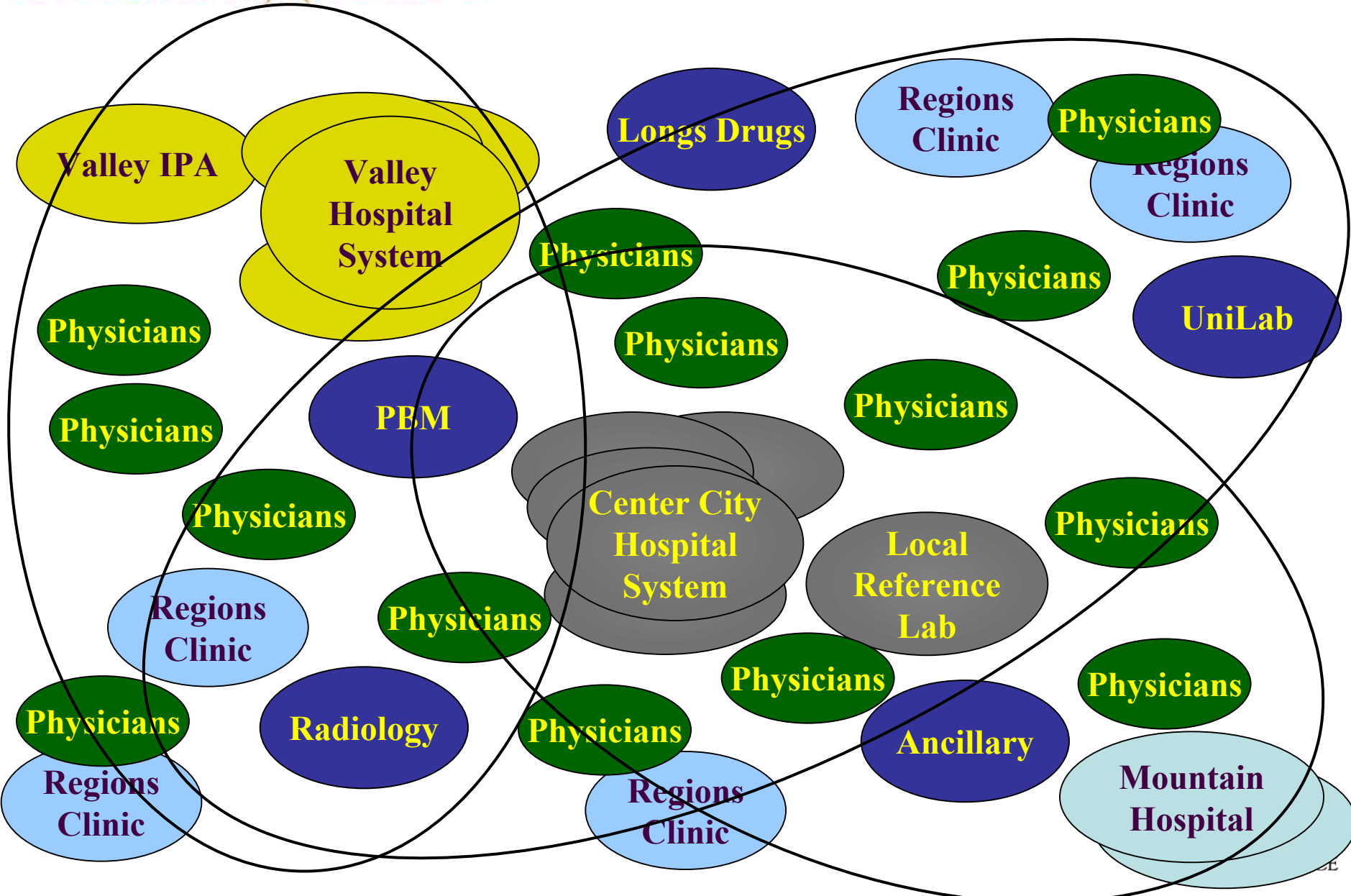
Sponsoring Organizations

- The Santa Barbara Regional Health Authority
- The County Public Health Department
- Sansum - Santa Barbara Medical Foundation Clinic
- Cottage Health System
- Catholic Health Care West Marion Medical Center
- MidCoast IPA
- The Lompoc Valley Community Healthcare Organization
- Santa Barbara Medical Society
- Pueblo Radiology
- UNILAB
- Other provider organizations
- University of California, Santa Barbara



- Problem
- Data
- Technology
- Benefits

Care Fragmentation Problem



Baseline Assessment: Fragmentation Impact

- Physicians sharing the same patient ordered duplicate tests and therapies
 - The same drug, lab test or radiology exam was ordered 11% of the time
 - Half of the time, patients followed the duplicate instructions
- Physicians didn't know what other physicians were doing to their patients
 - 1 out of 4 prescriptions taken by a patient were not known by the primary care physician
- Uncertainty and hassle reduction drove decisions
 - 1 of 7 admissions resulted from missing information in emergency rooms or primary care settings
 - 1 of 5 lab and xray tests were duplicates because of retrieval barriers

Case Study: A Patient Presents to His/her Physician

Enterprise View of a Patient

- Comorbidities:
 - Diabetes

- Other visits:
 - “Saw my sugar doctor”

- Tests:
 - None

- Drugs:
 - Insulin

CDE View of the Patient

- Comorbidities:
 - Diabetes
 - Heart Failure
 - Hypertension

- Other visits:
 - Diabetologist: 5/2/02
 - Cardiologist: 4/28/02
 - CHF Admission: 4/03/02

- Tests:
 - HgA1C: 14%
 - CXR: Mild CHF
 - ECG: Old MI

- Drugs:
 - Insulin
 - ACE Inhibitor
 - Percoset



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- Institution-based Data Flow
 - Institution-to-Clinician
 - Institution-to-Consumer
 - Institution-to-Public Health
- Clinician-based Data Flow
 - Clinician-to-Clinician
 - Clinician-to-Consumer
 - Clinician-to-Public Health

Data Available by Organization

- The Santa Barbara Regional Health Authority
 - Eligibility
 - Authorizations
 - Referrals
 - Pharmacy, medical and hospital claims
- Sansum-Santa Barbara Medical Foundation Clinic
 - Laboratory
 - Radiology reports
 - Radiology images and voice clips
 - Medical record transcribed reports²⁰⁰³
 - Pharmacy²⁰⁰³
- The County Public Health Department
 - Laboratory data from internal system and UNILAB
 - Radiology reports²⁰⁰³

Data Available by Organization (cont'd.)

- Cottage Health System
 - Laboratory
 - Radiology reports
 - Radiology images and voice clips
 - Clinical reports: H&P, discharge summary, procedure, consultation and progress notes
 - Pharmacy²⁰⁰³
 - ER Notes²⁰⁰³
- Catholic Health Care West--Marion Medical Center
 - Laboratory²⁰⁰³
 - Radiology Reports²⁰⁰³
 - Clinical reports: H&P, discharge summary, procedure, consultation and progress notes²⁰⁰³
 - Pharmacy²⁰⁰³

Data Available by Organization (cont'd.)

- The Lompoc HealthCare District
 - Laboratory
 - Radiology reports
 - Radiology images and voice clips²⁰⁰³
 - Clinical reports: H&P, discharge summary, procedure notes²⁰⁰³
 - Pharmacy²⁰⁰³
- MidCoast IPA
 - Laboratory data from UNILAB
 - Electronic Medical Records²⁰⁰³
- Pueblo Radiology
 - Radiology images and voice clips
 - Radiology reports²⁰⁰³
- Independent Physicians
 - Laboratory data from UNILAB
- Ancillary Pharmacies²⁰⁰³

Santa Barbara County
CARE DATA EXCHANGE™

The logo for Santa Barbara County CARE DATA EXCHANGE features the text "Santa Barbara County" in a small, dark font above the main title "CARE DATA EXCHANGE™" in a large, bold, dark red font. A stylized orange figure with arms raised is positioned behind the word "EXCHANGE", and a semi-circle of small dots arches over its head.

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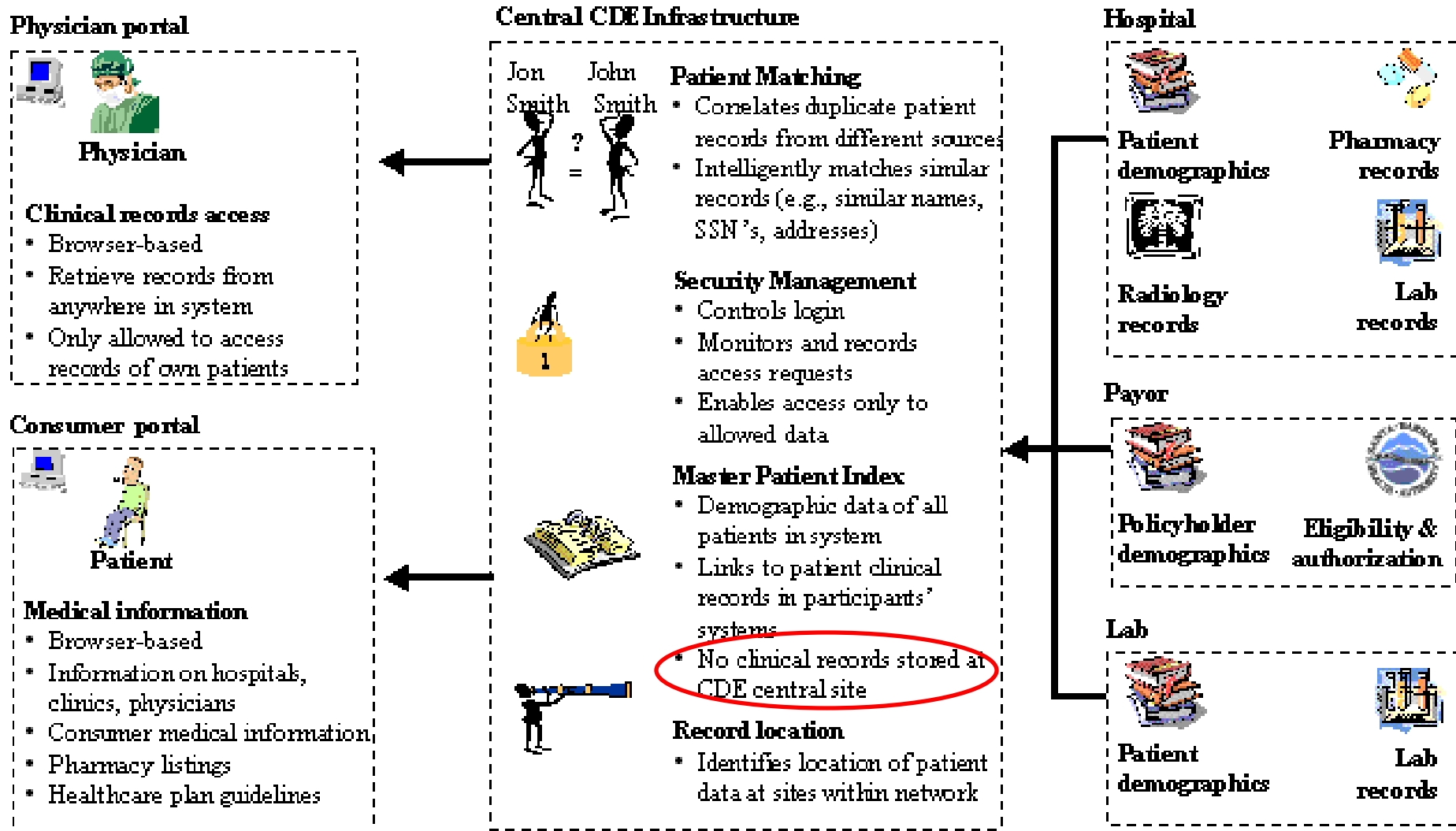
Technology Applications

- Physician data access (Physician Portal)
 - Seamless, longitudinal and cross-enterprise
 - Lab, radiology, pharmacy, transcriptions
 - Referrals and consults
 - Eligibility, enrollment and authorizations
- Consumer data access (Consumer Portal)
 - Personal health information access
 - Tracking of personal health information access
 - Amendment of personal health information
- Population health management
 - Cross-hospital reporting and tracking
 - Public health reporting
 - Disease and treatment surveillance

Data Exchange Precepts

- Cross-enterprise access
 - Local control of data
- Inexpensive operation
 - Use public Internet connectivity
- “Open Standard” design
 - Employ industry standard interfaces
- Care improvement focus
 - Reduce medical errors and redundancies
 - Enhance consumer and physician role

Care Data Exchange: Peer-to-Peer Technology



Data Protection Approach

Physician Request

Identity Credentials

Relationship Verification

- Prior Treatment
- Emergency
- Referral

Sponsor Consent

Requester Consent

Holder Consent

Result

Consumer Request

Identity Credentials

Physician Authorization

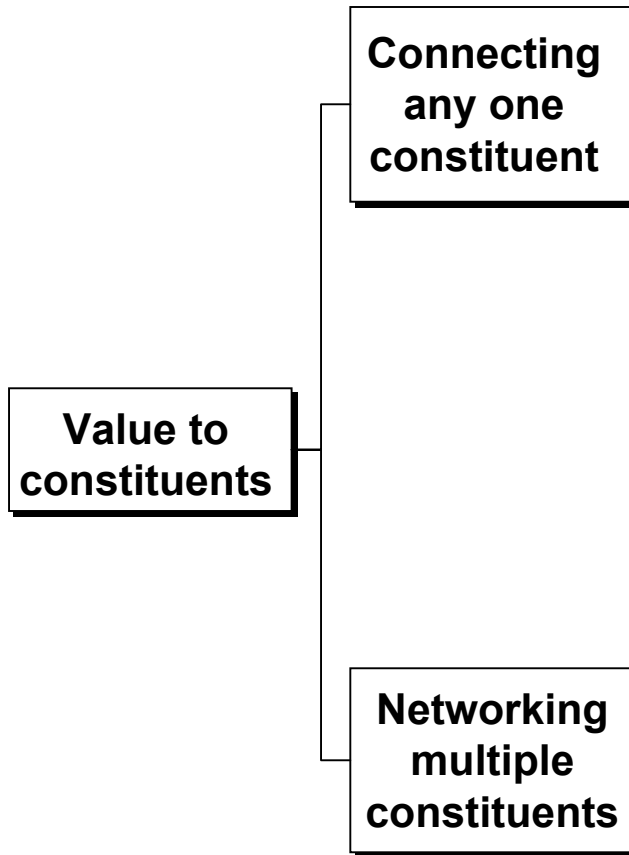
Result

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Care Data Exchange Benefits Basis



Quantifiable Benefits

- Lab savings
 - Lower cost of lab results delivery
 - Less staff time spent handling lab test results
- Radiology savings
 - Lower cost of radiology results delivery
 - Less staff time spent handling radiology results
- Less time spent fulfilling external requests for information
- Payor transaction costs

- Fewer admissions from the ED
- Fewer readmissions
- Fewer medical errors
- Fewer readmissions
- Shortened hospital length of stay
- Enhanced revenue from proper coding
- Test duplication avoidance
- Staff saving- less time spent requesting information
- Payor transaction costs

Clinical Benefits Under Evaluation

- Higher quality of care
 - More information to aid in diagnosis and treatment plan
- Higher quality of patient interaction
 - Less time is spent obtaining data from patient
- Higher satisfaction of staff and physicians
 - Easier access to clinical information
- Better population health
 - More complete longitudinal information available
- Fewer redundant tests
 - Easier to obtain information than to repeat
- Stronger health promotion
 - Easy consumer access to clinical information



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