Understanding EHRs: Common Features and Strategic Approaches for Medicaid/SCHIP

Presented by:

Karen M. Bell – MD, MMS, Director, HIT Adoption

W. David Patterson – PhD, Deputy Chief, Health and Demographics
South Carolina Office of Research and Statistics

Overview

- **Welcome** – Erin M. Grace, MHA, Senior Manager, Health IT, Agency for Healthcare Research and Quality (AHRQ)/National Resource Center

- **Before We Begin** – Erin M. Grace, MHA

- **Introductions**

- **Presentations**

  - *EHRs: 2008*
    - Presented by Karen M. Bell, MD, MMS, Director, HIT Adoption

  - *Electronic Health Records and Health Information Exchange in South Carolina*
    - Presented by W. David Patterson, PhD, Deputy Chief, Health and Demographics, South Carolina Office of Research and Statistics

- **Question and Answer** – Erin M. Grace, MHA

- **Closing Remarks** – Erin M. Grace, MHA

Before we begin…

- Please note all participants were muted as they joined the Webinar.

- If you wish to be un-muted, choose the "raise hand" option to notify the host.

- If you have a question during the presentation, please send your question to *all participants* through the chat. At the end of the presentation, there will be a question and answer period.

- If you would like a copy of the presentation slides please e-mail nbuchholz@rti.org

Listserv Registration

- Please register for the listserv to receive announcements about program updates
- To register go to http://healthit.ahrq.gov/Medicaid-SCHIP
- Click on "Medicaid-SCHIP Fast Facts" on the left-hand side of the screen
- There are two ways to register for the listserv:
  - 1. Click the link "Click here to subscribe to the listserv" which will open a pre-filled e-mail message, enter your name after the text in the body of the message and send.
  - 2. Send an e-mail message to: listserv@list.ahrq.gov.
    On the subject line, type: **Subscribe**.
    In the body of the message type: **sub Medicaid-SCHIP-HIT** and **your full name**. For example: sub Medicaid-SCHIP-HIT John Doe. You will receive a message asking you to confirm your intent to sign up.

EHRs: 2008

Presented by:

Karen M. Bell, MD, MMS Director, HIT Adoption

HIT: A National Vision

Appropriate and immediate access to secure and reliable comprehensive health information by appropriately authorized parties to

- coordinate safer, more effective and timely patient care among providers
- allow clinicians to communicate with and care for patients, wherever they may be
- enable individuals to better manage their own health
- support community health efforts through public health, emergency response, and enhanced research opportunities

HIT Vision: Key Components

- EHRs – a record where providers create, import, store, and use comprehensive clinical information for patient care; can include use of "patient portals" to enhance communication; provider controlled

- PHRs – a record where individuals create, import, store, and use comprehensive clinical information to support their own health; patient controlled

- Health Information Exchange – the electronic movement of health-related data and information among specific providers, patients, and other entities according to agreed upon protocols

- National Health Information Network -- standards and specifications which allow health-related data and information to be shared securely and reliably among any authorized parties and entities

Current State EHR Adoption:
US Physicians, 2007

- Range up to 28% using some functions
- 14% with electronic note keeping, lab and med orders, and ability to obtain lab results
- 7% of solo physicians
- 28%, 11 or more physicians in practice
- 3X more prevalent in metropolitan areas

Current State EHR Adoption: Hospitals 2007

- 68% with full or partial adoption
- 11% with fully implemented EHRs
- Size matters: 3% (<50 beds) to 23% (>500 beds)
- Full implementation does not represent physician use (fourth of implemented hospitals report 50% MD use.)

CCHIT Certified EHRs

- Founded in 2005
- Multi-stakeholder public/private partnership with a public process
- Criteria for functionality, security, and interoperability (accepted by Secretary, DHHS)
- First ambulatory EHR products certified 2006
- Currently covers 75 to 80% of installed market
- Over 25% of ambulatory EHRs now in use have been certified
- Ongoing process: new functionalities, new interoperability standards, specialty EHRs, new settings, PHRs, interoperable networks

Charges to AHIC Workgroups

- EHR Workgroup: Make recommendations to the Community on ways to achieve widespread adoption of certified EHRs, minimizing gaps in adoption among providers.

- Consumer Empowerment: Make recommendations to the Community to gain widespread adoption of a personal health record that is easy to use, portable, longitudinal, affordable, and consumer-centered.

Areas of Focus

- Business Case
- Technical Considerations
- Privacy and Security Concerns
- Medical Legal Issues
- Organizational/Cultural Issues (Workflow, Workforce, Public Expectations, etc.)

Business Case: Barriers

- Physician office average cost: $20,000/user of software, installation, loss of productivity – hardware additional

- Recent findings suggest no financial ROI to physician providers in today's environment

- ROI accrues to payers of health care

Business Case: Enablers

- Certification of products, decreased risk of failed investment
- Stark amendment and anti-kickback relief allowing hospital donations to physicians
- HRSA grants to rural and community-based federally qualified health centers
- Malpractice fee credits
- Selected private and public (CMS demonstration project) insurer incentives based on adoption and effective use of EHR functions, leading to improved performance on specified metrics

Technology: Barriers

- Usability and functionality
- Automation of paper processes
- Lack of interoperability (cost of interfaces with multiple other providers -- labs, hospitals, radiology centers, etc.)
- Updates and enhancements

Technology: Enablers

- Improved data organization; clinical supports; decreased administrative burden; enhanced administrative functions (e-scheduling)

- Harmonized interoperability standards prioritized for key clinical data

- Development of Health Information Exchange organizations

- Quality reporting -- both internal to practice and for added reimbursement

Privacy and Security Concerns

- Control of information and flow
- Consequences of breach (loss of insurance, work, or other forms of discrimination)
- Secondary uses of data
- Genomic and family history affect family members

Privacy and Security: Work in Progress

- Authorization; Authentication
- Patient Identity Proofing and Linkage
- Principles and Policies for Secondary Uses of Information
- Protection from Discrimination Based on Genetic Information (GINA)
- Health Information Portability and Accountability Act
- Principles, Policies, Procedures, and Protections for all forms of electronic health information use and exchange

Organizational Concerns

- Limited Workforce (development, implementation, use, research)
- Leadership
- Staff redeployment
- "Legal" EHRs and liability
- Redefined patient/clinician roles

The (not too distant) Future

- Expanded interoperability
- Patient access to clinical information
- Pre-populated EHRs and PHRs
- Point-to-point information exchange
- Multi-stakeholder Health Information Exchange

Technical Assistance for Health Information Technology and Health Information Exchange in **Medicaid and SCHIP**

Electronic Health Records and Health Information Exchange in South Carolina

Presented by:

W. David Patterson, PhD, Deputy Chief, Health and Demographics, SC Office of Research and Statistics

Funded by the Agency for Healthcare Research and Quality

Overarching Themes

- Electronic Health Records versus Electronic Medical Records

- The role of Health Information Exchanges in creating an EHR
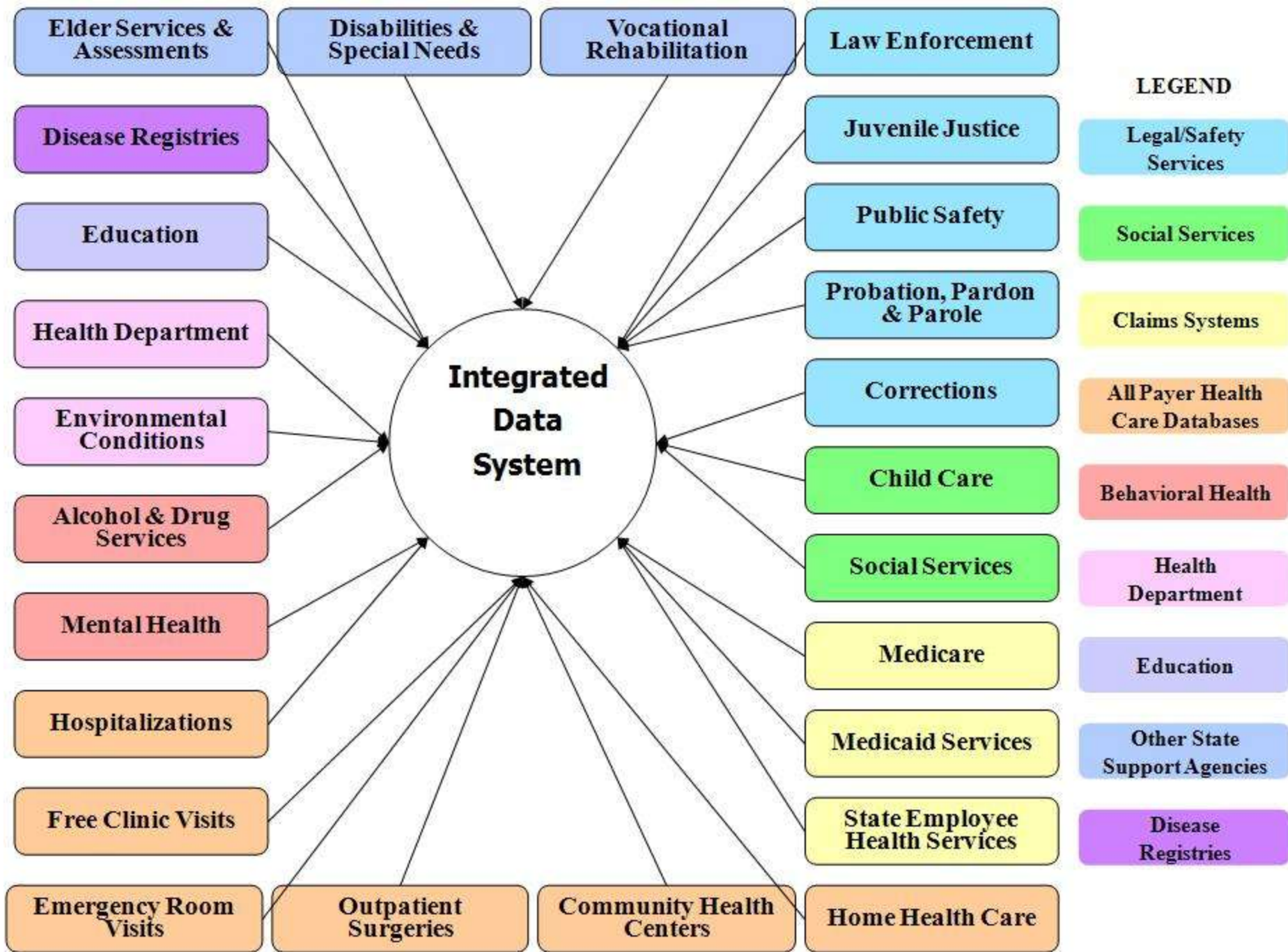
- The utility of claims records

South Carolina Office of Research and Statistics

- SC Budget and Control Board, Office of Research & Statistics is a Service Agency in South Carolina

- Neutral, no programmatic responsibilities

- Statistical and Research focused

- Experienced in gathering, integrating, and disseminating data

SC Data Warehouse

- Build off of existing systems (legacy systems from state agencies and private sector)

- Create a Unique ID (not related to any other number)

- Identifiers are pulled off of the statistical data. Use only the statistical data

- Data is always "owned" by the originating agency. Must have permissions to use and/or link any data

Elder Services & Assessments

Disabilities & Special Needs

Vocational Rehabilitation

Law Enforcement

Disease Registries

Education

Health Department

Environmental Conditions

Alcohol & Drug Services

Mental Health

Hospitalizations

Free Clinic Visits

Emergency Room Visits

Outpatient Surgeries

Community Health Centers

Home Health Care

Juvenile Justice

Public Safety

Probation, Pardon & Parole

Corrections

Child Care

Social Services

Medicare

Medicaid Services

State Employee Health Services

Integrated Data System

LEGEND

Legal/Safety Services

Social Services

Claims Systems

All Payer Health Care Databases

Behavioral Health

Health Department

Education

Other State Support Agencies

Disease Registries

HIE Precursors Developed by ORS

The Medicaid EPHR System
Version 1.0

DOE, JOHN
May 15, 1985 (21)
Medicaid ID: 123456789
Change Patient

898838-09
NPI: ORS8950
Provider: CMS USER

Logout

| Dashboard | Inpatient (29) | Emergency Room (93) | Dental (0) | Medications (41) | State Agencies (0) | Notes (0) |

Diagnoses Past 12 Months
09/01/2006 - 71945 JOINT PAIN-PELVIS (1)
07/22/2006 - 78703 VOMITING ALONE (9)
07/19/2006 - 2859 ANEMIA NOS (2)
06/19/2006 - 462 ACUTE PHARYNGITIS (1)
06/11/2006 - 986 TOX EFF CARBON MONOXIDE (1)
06/04/2006 - 490 BRONCHITIS NOS (2)
06/23/2006 - 28269 SICKLE-CELL ANEMIA NEC (21)
05/17/2006 - 5990 URIN TRACT INFECTION NOS (2)
07/22/2006 - 7862 COUGH (9)
06/23/2006 - 78099 78099 (15)

Eligibility Information
System down for maintenance!

Postings / Notes
No Postings / Notes

Medications
08/29/2006 - MORPHINE SULFATE IR 30 MG TB (2)
08/29/2006 - PROMETHAZINE 25 MG TABLET (1)
07/07/2006 - MORPHINE SULF 15 MG TABLET CR (1)
06/23/2006 - OXYCODONE W/APAP 5/325 TAB (1)
06/19/2006 - AZITHROMYCIN 250 MG TABLET (1)
06/16/2006 - ALBUTEROL 90 MCG INHALER (1)
06/06/2006 - METHADONE HCL 5 MG TABLET (1)
05/18/2006 - POTASSIUM CL 20 MEQ TAB SA (1)
05/18/2006 - AVELOX 400 MG TABLET (1)
08/31/2006 - EXJADE 500 MG TABLET (3)

Clinical Procedures
04/18/2006 - 82728 FERRITIN (1)
04/05/2006 - 36415 COLLECTION OF VENOUS BLOOD/VENIPUNCTURE (1)
04/04/2006 - Q9950 LO OSM CONTR MTRL,350-399MG/ML IODINE,ML (1)
04/24/2006 - 99284 E/M EMERGENCY DEPARTMENT SERV LEVEL 4 (3)
03/22/2006 - 92083 VISUAL FLD W/DIAG EVAL EXTEND EXAM,3+ISO (1)
03/10/2006 - 99223 E/M IP SERV INITIAL HOSP CARE LEVEL 3 (1)
03/24/2006 - 99222 E/M IP SERV INITIAL HOSP CARE LEVEL 2 (4)
03/01/2006 - C8951 IV INFUS,THERAPY/DIAGNOSIS,EA ADD'L HOUR (1)
02/07/2006 - 3893 VENOUS CATH NEC (1)
01/15/2006 - 71020 RADIOLOGIC EXAM CHEST TWO VIEWS FRON/LAT (1)

HIE HeadStart

- **Who**
  - Technology Background and Principals involved
    - AccessNET Consortium
    - ORS, SC Budget and Control Board, South Carolina
    - CareEvolution Inc.
- **How**
  - Leverage the existing Data Warehouse
  - Partnerships in Funding and Development

HIE HeadStart

Phase I leverages administrative claims data warehoused at the SC Office of Research and Statistics (ORS) to establish a Record Locator Service (RLS) for the region as well as longitudinal record for over 4 million residents of the state. Specifically, the data will include

- all Medicaid (including pharmacy and physician office visits)
- UB-92 inpatient, ambulatory surgery and ED claims

As such, this warehouse will provide a nearly comprehensive record of all providers who have served a given patient or client since 1996

- Diagnoses
- Procedures
- Prescription History

Platform allows inclusion of data from other sources such as:

- Clinical data from provider EMRs
- Reference labs
- Department of Health and Environmental Control (DHEC)

Guiding Principles For Our Current Solution

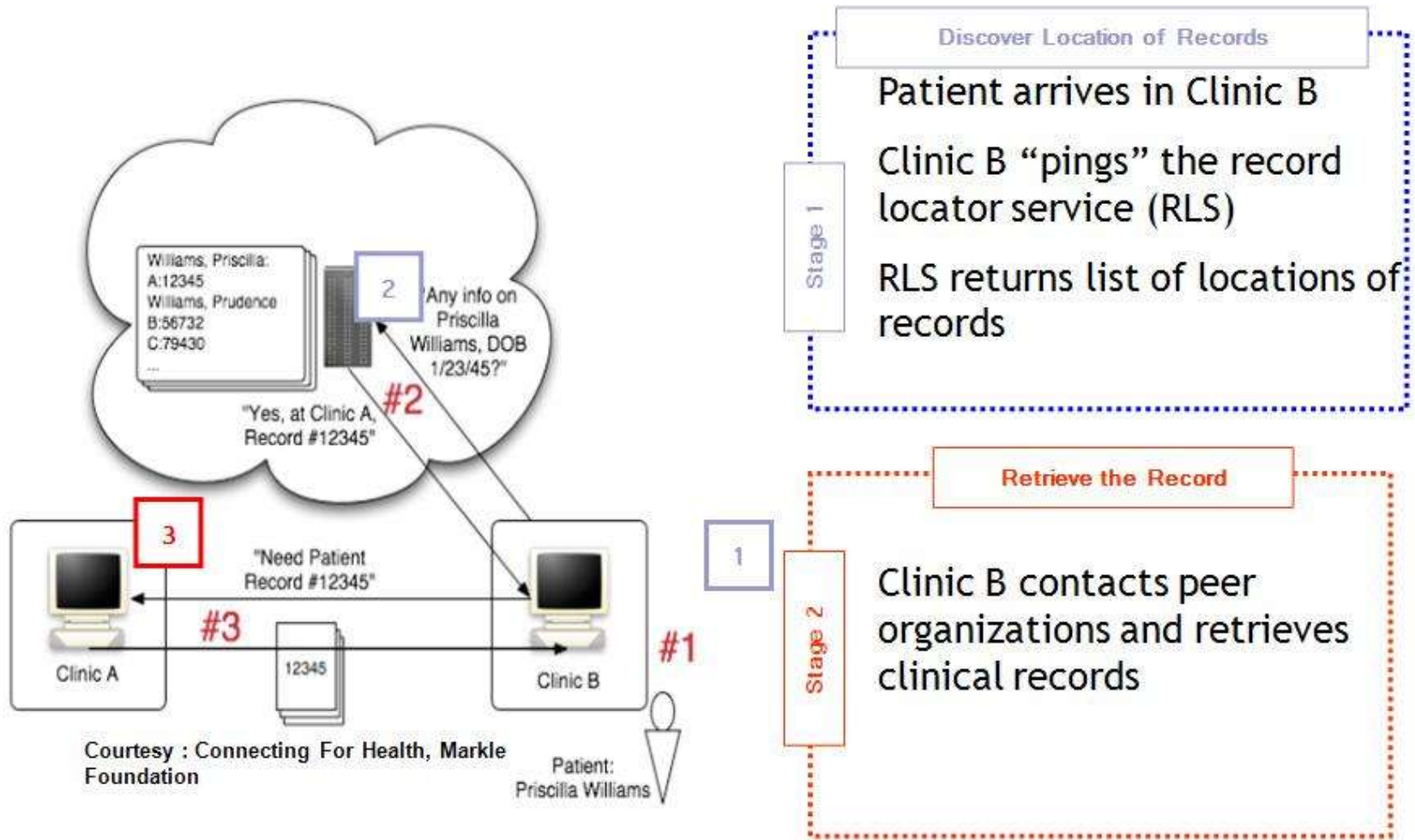# Connecting for Health Model – National Leader

Design Principles of the Model

1. Builds on existing systems ("incremental") and creates early value for doctors and patients
2. Leverages both "bottom-up" and "top-down" strategies
3. Designed to safeguard privacy—imposed the requirements and then designed the solution
4. Consists of an interoperable, open standards-based "network of networks" built on the Internet

2 Stage Data Exchange - Scenario

Discover Location of Records

Stage 1

Patient arrives in Clinic B

Clinic B "pings" the record locator service (RLS)

RLS returns list of locations of records

Retrieve the Record

Stage 2

Clinic B contacts peer organizations and retrieves clinical records

Williams, Priscilla:
A:12345
Williams, Prudence
B:56732
C:79430
...

"Any info on Priscilla Williams, DOB 1/23/45?"

"Yes, at Clinic A, Record #12345"

#2

"Need Patient Record #12345"

#3

Clinic A

12345

Clinic B

#1

Courtesy : Connecting For Health, Markle Foundation
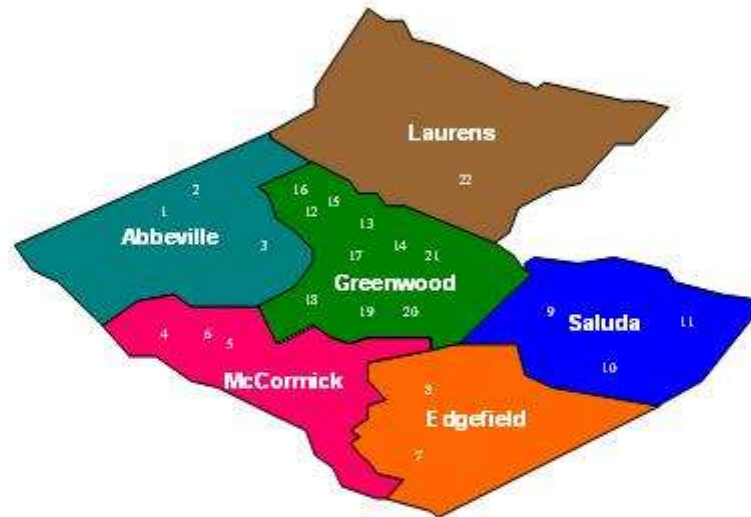
Patient: Priscilla Williams

Lakelands Rural Health Network RHIO

- The First Live Pilot of the State HIE Infrastructure
- A Potential Model for Future Expansion

Lakelands Rural Health Network

1 - Abbeville County Memorial Hospital
2 –Abbeville County Health Department
3 –Calhoun Falls Family Practice Center
4- Savannah Lakes Medical Center
5 –McCormick County Health Department
6 –McCormick Family Practice Center
7 –Edgefield County Hospital
8 –Edgefield County Health Department
9 –Ridge Springs Family Practice
10-Saluda County Health Department
11-Saluda Family Practice

12 –Montgomery Center For Family Medicine
13- Express Medical Care of Self Regional
14- Uptown Family Practice Center
15- Ware Shoals Family Practice
16- Ware Shoals Center for Family Medicine
17- The Self Family Foundation
18- Greenwood County Health Department
19- DHEC Region 1 Public Health
20- Carolina Health Centers
21- Self Regional Healthcare
22.- Laurens County Health Care System

Building Massive Caregiver Appeal

- Target something real and concrete that is a pain-point or irritation for practitioners
  - Operational effectiveness: business impact
    - Referrals, pre-certifications, co-pays, collections
    - Records management
    - Prescription management
    - Risk management
  - Efficacy and safety: clinical impact
    - Timely results and notification: ending the paper-chase
    - Patient reminders
    - Access to health history for new patients
    - Emergency care
  - Patient satisfaction and e-health

Medicaid EPHR Project Version 2.0

- Uses the same technology platform and participates in the same policy development process

- Purpose: to provide the clinical viewer to all primary care providers who accept Medicaid

- Invaluable in forging additional partnerships
  - Reference labs
  - DHEC Immunization Registry

Overarching Vision for SCHIEx

SC Health Information Exchange – Network of networks

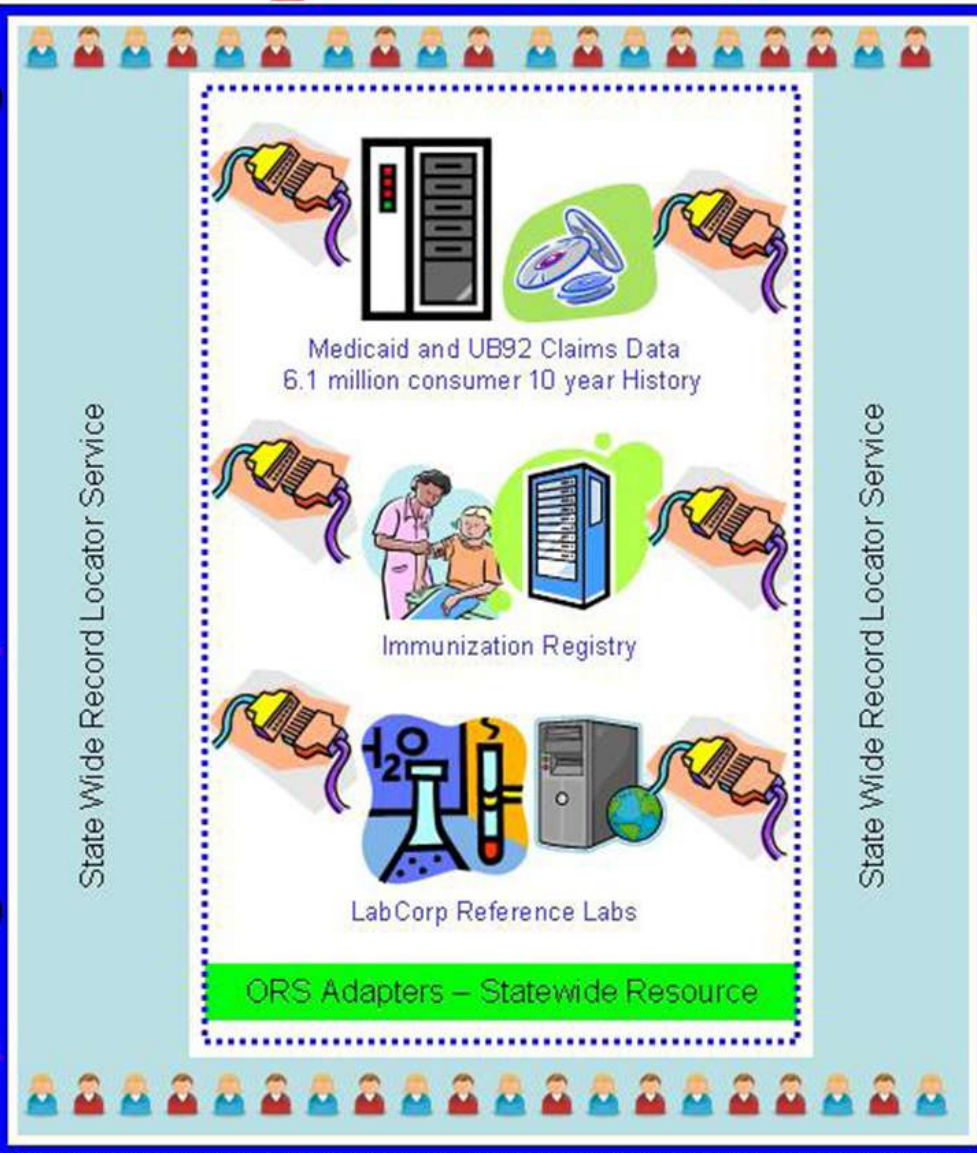Applications — Network / Core Services — Regional networks

EMS / First Responder

Medicaid Primary Care Providers

Family Health Record

State Wide Record Locator Service

Medicaid and UB92 Claims Data
6.1 million consumer 10 year History

Immunization Registry

LabCorp Reference Labs

ORS Adapters – Statewide Resource

State Wide Record Locator Service

Georgetown Hospital

Medical University of South Carolina - HSSC

Lakelands Rural Health Network – 22 member HIE

Governance   Policy   Technology   Execution

http://generaltso/WebClient/Authenticated/Dashboard.aspx

File   Edit   View   Favorites   Tools   Help

CareEvolution WebClient

Patient Data Viewer
Change Application

Terms of Use
Privacy Policy

SC Office of Research and Statistics
1919 Blanding Street
Columbia, SC 29201

careevolution
HEALTHCARE TECHNOLOGY

User: **CEUser** Sign Out | Change Password

My Census Definitions

Medicaid Demo

Census Search Criteria

Demographics

Last Name   Demoski
First Name
Middle Name

Go >>

Last Name	First Name	Middle Name	DOB	MRN	Admit Date
Demoski	Stan	V.	6/17/1995		3/31/2003
Demoski	Fran	K.	9/15/1990		1/7/2004
Demoski	Helen	T.	4/21/1950		2/3/2004
Demoski	Monte	A.	2/1/1989		8/26/2004
Demoski	Mary	S.	12/1/1992		10/7/2003
Demoski	Alfred	K.	4/1/1939		10/18/2004

« ‹ 1-6 of 6 › »

Done   Local intranet   100%

start   Inbox - Microsoft Out...   Microsoft PowerPoint ...   CareEvolution WebCli...   10:42 AM

Helen Demoski
Change Patient

Age: **56 yo**
DOB: **4/21/1950**

SSN: **998-98-9919**
Medicaid: **123456789**

Ref#:

care**evolution**
HEALTHCARE TECHNOLOGY

| Dashboard | Summary | Reports | Labs | Collaborate |

User: **CEUser** Sign Out | Change Password

Click the timeline to
change the data range
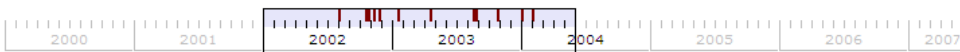
| 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |

| | | **2002** | | **2003** | | **2004** |
| Inpt | ER | Clinic/Office | J F M A M J J A S O N D | J F M A M J J A S O N D | J F M A M |

☑ **COMMON PROBLEMS** ⬆⬇

ASTHMA NOS
FX RADIUS NECK-CLOSED

☑ **PROBLEMS** ⬆⬇

Infectious/Endocrine
Neoplasms/Blood Disorders
Psych/Nervous System
Circulatory
Respiratory

PURULENT ENDOPHTHALM NOS

ASTHMA NOS
TRACHEA/BRONCHUS DIS NEC
ASTHMA NOS W (AC) EXAC
ACUTE SINUSITIS NOS

Digestive
Genitourinity/Reproductive
Skin/Musculoskeletal
Signs/ Symptoms
Injury

FX RADIUS NECK-CLOSED
COLLES' FRACTURE-CLOSED
ACCIDENT IN PLACE NOS

Health Services

☐ VISIT SUMMARY ⬆⬇

☑ **PROVIDERS** ⬆⬇

LOVELACE FAMILY MED CTR
CVS PHARMACY #3542
LOREX
PALMETTO BONE & JOINT PA
Other

☑ **PROCEDURES** ⬆⬇

E/M OFFICE/OP SERV EST PATIEN
VITAL CAPACITY TOTAL
CLINIC VISIT/ENCOUNTER, ALL-I
RN SERVICES UP TO 15 MINUTES
NONINVASIVE EAR PULSE OXIMETR
E/M OFFICE/OP SERV EST PATIEN
RADIO EXAM ELBOW COMP MINIMUM
E/M OFFICE/OP SERV EST PATIEN
TREAT CLOS RAD HEAD/NECK FX W
DETERMINATION OF REFRACTIVE S
OPHTHALMOLOGICAL SVC COMPREHE

☑ **MEDICATIONS** ⬆⬇

XOPENEX 1 25MG/3ML SOLUTION

Done   Local intranet   100%

CareEvolution WebClient - Windows Internet Explorer

http://24.247.95.65:9000/OfficeDemo/Authenticated/PatientSummary/DailySummary.aspx

Live Search

File Edit View Favorites Tools Help

CareEvolution WebClient

Page ▼ Tools ▼

Helen Demoski
Change Patient

Age: **58 yo F**
DOB: **4/21/1950**

SCHIEx

User: **CEClinician** Sign Out | Change Password

| Consent | Dashboard | Summary | DailySummary | Eligibility | Reports | Labs |

| Collaborate |

Provide Feedback

☐ Anchor at Noon/Midnight

| 11/28 | 11/29 | 11/30 | 12/1 | 12/2 | 12/3 |

| 12/1 | | 12/2 | | 12/3 |
| 20 21 22 23 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 0 1 2 3 4 5 6 7 |

☑ **PATIENT STATUS** ↟↡

| **Vital Signs** | 111-129 / 62-73 HR:53-57
T: 96.7-99.1 RR: 18-22 SPO2: 94-98 | 84-129 / 51-73 HR:51-70
T: 97.1-98.1 RR: 20-22 SPO2: 96-98 | 104-122 / 61-94 HR:56-66
T: 95.8-96.7 RR: 18-20 SPO2: 94-100 |
| **Weight** | 108.3 kg | 108.3 kg | 108.3 kg |

☑ **LATEST STATUS** ↟↡

| **Latest Vital Signs** | Home Meds... | 12/3 06:29 - 113 / 94 HR:66 T: 96.7 RR: 20 SPO2: 94 |

☑ **LABS** ↟↡

| **CBC** | WBC:16.6 HCT:28.6 HGB:10.2 |
| **BMET** | CL:104 BUN:26 K:4.3 NA:136 CO2:26 |

☑ **REPORTS** ↟↡

| **Reports** | Diagnostic X-Ray |
| | Diagnostic X-Ray |

☑ **NOTES** ↟↡

| **VForm Creation** | Endocrinology | Endocrinology | Cardiology |
| | | CT Surgery | |

ACTIVE ORDERS

☑ **LABS/TESTS ORDERED** ↟↡

| **Laboratory** | Protime, Prothrombin Time, Pt * |

☑ **MEDS ORDERED** ↟↡

Helen Demoski
Change Patient

Age: **58 yo F**
DOB: **4/21/1950**

SCHIEx

| Consent | Dashboard | Summary | DailySummary | Eligibility | Reports | Labs |

| Collaborate |

Provide Feedback

☐ Anchor at Noon/Midnight

| 11/28 | 11/29 | 11/30 | 12/1 | 12/2 | 12/3 |

| 12/1 | | | | 12/2 | | | | | | | | | | | | | | | | | | | 12/3 | | | | | | |
| 20 | 21 | 22 | 23 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

☑ **PATIENT STATUS** ⬆⬇

Vital Signs
111-129 / 62-73 HR:53-57
T: 96.7-99.1 RR: 18-22 SPO2: 94-98

84-129 / 51-73 HR:51-70
T: 97.1-98.1 RR: 20-22 SPO2: 96-98

104-122 / 61-94 HR:56-66
T: 95.8-96.7 RR: 18-20 SPO2: 94-100

Weight
108.3 kg

☑ **LATEST STATUS** ⬆⬇
Latest Vital Signs   Home Meds...

12/1/2006 20:00-12/2/2006 08:00						
	22:00	23:32	00:00	03:00	04:00	08:00
BP Systolic:	111	111	125		129	112
BP Diastolic:	62	62	65		73	53
Heart Rate:	57	57	53		53	54
Respirator:	18	18	18		22	20
Temperature:	96.7	96.7	99.1	98.1	98.1	98.0
SPO2:	94	94	95		98	98

☑ **LABS** ⬆⬇
CBC   WBC:16.6 HCT:28.6 HGB:10.2
BMET   CL:104 BUN:26 K:4.3 NA:136

☑ **REPORTS** ⬆⬇
Reports   Diagnostic X-Ray
Diagnostic X-Ray

☑ **NOTES** ⬆⬇
VForm Creation   Endocrinology   Endocrinology   Cardiology
CT Surgery

ACTIVE ORDERS

☑ **LABS/TESTS ORDERED** ⬆⬇
Laboratory   Protime, Prothrombin Time, Pt *

☑ **MEDS ORDERED** ⬆⬇

CareEvolution WebClient - Windows Internet Explorer

http://generaltso/WebClient/Authenticated/PatientSummary/PatientSummary.aspx

Live Search

File Edit View Favorites Tools Help

CareEvolution WebClient

Page ▾ Tools ▾

e.g. 'CBC', 'yesterday chem'

Go >>

Filters

Acuity

TimeCompression

Daily

Go >>

Lab Groups

My Lab Groups

Go >>

⊞ General Chemistry
⊞ Hematology
⊞ Cardiac

	2002	2003	2004	2005	2006

	10/29	10/30	11/1	11/2	4/15	4/16	4/17	4/18	6/11	6/16
+ General Chemistry										
BUN	High 56	High 50	19	18	High 33 --- High 37	High 34	High 31	High 39	High 36	16
CR	High 3.3	High 2.1	1.3	1.3	High 2.0 --- High 2.2	High 1.8	High 2.1	High 2.1	1.6	1.2
NA	138	139	142	138	137 --- 139	138	137	137	142	Low 135
K	High 5.6	4.9 --- High 5.4	4.9	4.9	5.0 --- High 5.6	4.6	4.5	4.7	4.2	4.6
CL	101	105	105	100	102 --- 102	101	100	103	100	99
CO2	24	30	29	28	25 --- 28	28	26	27	31	28
MG		2.3	1.9			2.1	2.0	2.1		
P		3.5	3.5			4.4	4.3	4.2		
+ Hematology										
WBC	Multiple Text: 15.0	9.5	9.1	7.0	High 14.1	High 16.6	High 20.9	High 20.5	High 10.2	Multiple Text: 14.8
RBC	Multiple Text: 1-2	Low 3.73	Low 3.65	Low 3.65	Low 3.75	Low 3.45	Low 3.53	Low 3.05	Low 3.03	Low 2.73
HGB	Low 12.3	Low 11.1	Low 10.9	Low 10.9	Low 11.1	Low 10.3	Low 10.4	Low 9.0	Low 8.8	Low 8.0
HCT	Low 36.8	Low 32.9	Low 32.6	Low 32.6	Low 33.1	Low 30.7	Low 31.3	Low 27.3	Low 26.6	Low 23.9
PL CT	251	228	221	197	253	254	287	264	High 427	High 422
+ Cardiac										
CPK	7315	Very High 3344 --- Very High 12147	6677	Very High 4528			108 --- 113	92		
CK MB	High 11.2	High 14.6 --- High 15.2	3.6				2.0 --- 2.2	1.7		
MB INDEX	0.2	0.1 --- 0.4	0.1				1.9 --- 1.9	1.8		
TROP	High 0.10	High 0.05 --- High 0.06	0.03				0.04 --- 0.04	0.02		

<< < Page 1 of 3 > >>

e.g. 'CBC', 'yesterday chem'

Go >>

Filters

Acuity

TimeCompression

Monthly

Go >>

Lab Groups

My Lab Groups

Go >>

⊞ General Chemistry
⊞ Hematology
⊞ Cardiac

		2002	2003	2004	2005	2006			
		10/1	11/1	4/1	6/1	7/1	8/1	11/1	12/1	4/1

+ General Chemistry

	10/1	11/1	4/1	6/1	7/1	8/1	11/1	12/1	4/1
BUN	High 50 --- High 56	18 --- 19	High 31 -- - High 39	16 --- High 36	11 --- High 31		19		12 --- High 29
CR	High 2.1 --- High 3.3	1.3 --- 1.3	High 1.8 - -- High 2.2	1.2 --- 1.6	1.0 --- High 2.1		1.2		1.1 --- 1.5
NA	138 --- 139	138 --- 142	137 --- 139	Low 135 --- 142	Low 132 -- - 143				138 --- 140
K	4.9 --- High 5.6	4.9 --- 4.9	4.5 --- High 5.6	4.2 --- 4.6	4.5 --- Very High 6.1		High 5.6		4.5
CL	101 --- 105	100 --- 105	100 --- 103	99 --- 100	Low 95 --- 105				100 --- 106
CO2	24 --- 30	28 --- 29	25 --- 28	28 --- 31	25 --- 28		30		27 --- 29
MG	2.3	1.9	2.0 --- 2.1		1.8 --- 2.0				
P	3.5	3.5	4.2 --- 4.4		3.6 --- 3.8				
ALB									Low 2.7

+ Hematology

	10/1	11/1	4/1	6/1	7/1	8/1	11/1	12/1	4/1
WBC	Multiple Text: 15.0	7.0 --- 9.1	High 14.1 --- High 20.9	Multiple Text: 10.2	9.1 --- High 17.5				7.8 --- 8.0
RBC	Multiple Text: 1-2	Low 3.65 - -- Low 3.65	Low 3.05 - -- Low 3.75	Low 2.67 --- Low 3.03	Low 2.08 - -- Low 3.53		Low 3.77		Low 3.02 - -- Low 3.15
HGB	Low 11.1 --- Low 12.3	Low 10.9 - -- Low 10.9	Low 9.0 -- - Low 11.1	Low 7.8 --- Low 8.8	Very Low 5.8 --- Low 10.1		Low 11.4		Low 9.7
HCT	Low 32.9 --- Low 36.8	Low 32.6 - -- Low 32.6	Low 27.3 - -- Low 33.1	Low 23.3 --- Low 26.6	Low 17.8 - -- Low 30.6		Low 34.6		Low 27.5
PL CT	228 --- 251	197 --- 221	253 --- 287	High 422 --- High 431	371 --- High 565				365 --- High 407

+ Cardiac

	10/1	11/1	4/1	6/1	7/1	8/1	11/1	12/1	4/1
CPK	Very High 3344 --- Very High 12147	Very High 4528 --- 6677	92 --- 113	67 --- 81	63 --- 93				
CK MB	High 11.2 -- - High 15.2	3.6	1.7 --- 2.2	1.3 --- 1.9	2.0 --- 2.0				
MB INDEX	0.1 --- 0.4	0.1	1.8 --- 1.9	1.9 --- High 2.3	High 2.2 -- - High 3.2				
TROP	High 0.05 -- - High 0.10	0.03	0.02 --- 0.04	0.03 --- 0.03	0.01 --- 0.02				

Helen Demoski
Change Patient

| Age: | **56 yo** | SSN: | **998-98-9919** | Ref#: |
| DOB: | **4/21/1950** | Medicaid: | **123456789** |

care**evolution**
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    5/12/2006 11:47:13 AM
    5/12/2006 11:47:13 AM

                        History and Physical
Dr. John Smith
University Hospital
1301 Medical Center Driver
Cyber City, MI 48105
Patient: Helen Demoski
MRN: 00000808
This is an example of a History and Physical. A review of systems and a history of the present illness would be displayed here.
Additional information may be summarized about the patient. The physician will likely include an assessment and plan.
This note will be dictated by the physician and received as an electronic transaction from the dictation system.
 Signed,
 John Smith, MD

South Carolina Budget and Control Board
Office of Research and Statistics
1919 Blanding Street
Columbia, SC 29201
(803) 898-9940

Web-based Patient View

Contact Information

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Comments and Recommendations for Future Sessions

■ Please send your comments and recommendations for future sessions to the project's e-mail address:

Medicaid-SCHIP-HIT@ahrq.hhs.gov

Project Information

Please send comments and recommendations to:
Medicaid-SCHIP-HIT@ahrq.hhs.gov

or call toll-free:

1-866-253-1627

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