



Cerner Diabetes Initiative

Seth Rupp
Vice President
NCVHS Hearing
November 12, 2004



Experience Guides Development and Implementation

Primary Driving Factors

1. Manage Health
2. Manage Costs
3. Manage Efficiencies

Users of Health Records

- Healthy but Concerned
- Healthy but @ Risk (e.g. Family Hx Concerns)
- Chronically Ill (e.g. CHF, Diabetic, COPD, etc.)
- Proxy for Healthcare (e.g. "Parents and Peds" - Hospice, General Familial Needs, Guardians, etc.)
- Those Seeking Efficiencies (e.g. View my Appointments, HSA's, Clinician/System Interaction, Refills, etc.)

"...Increasing prevalence of obesity accounted for 12% of the growth in healthcare spending from 1987 to 2001." - Emory University Study, Modern Health, October 25th, 2004

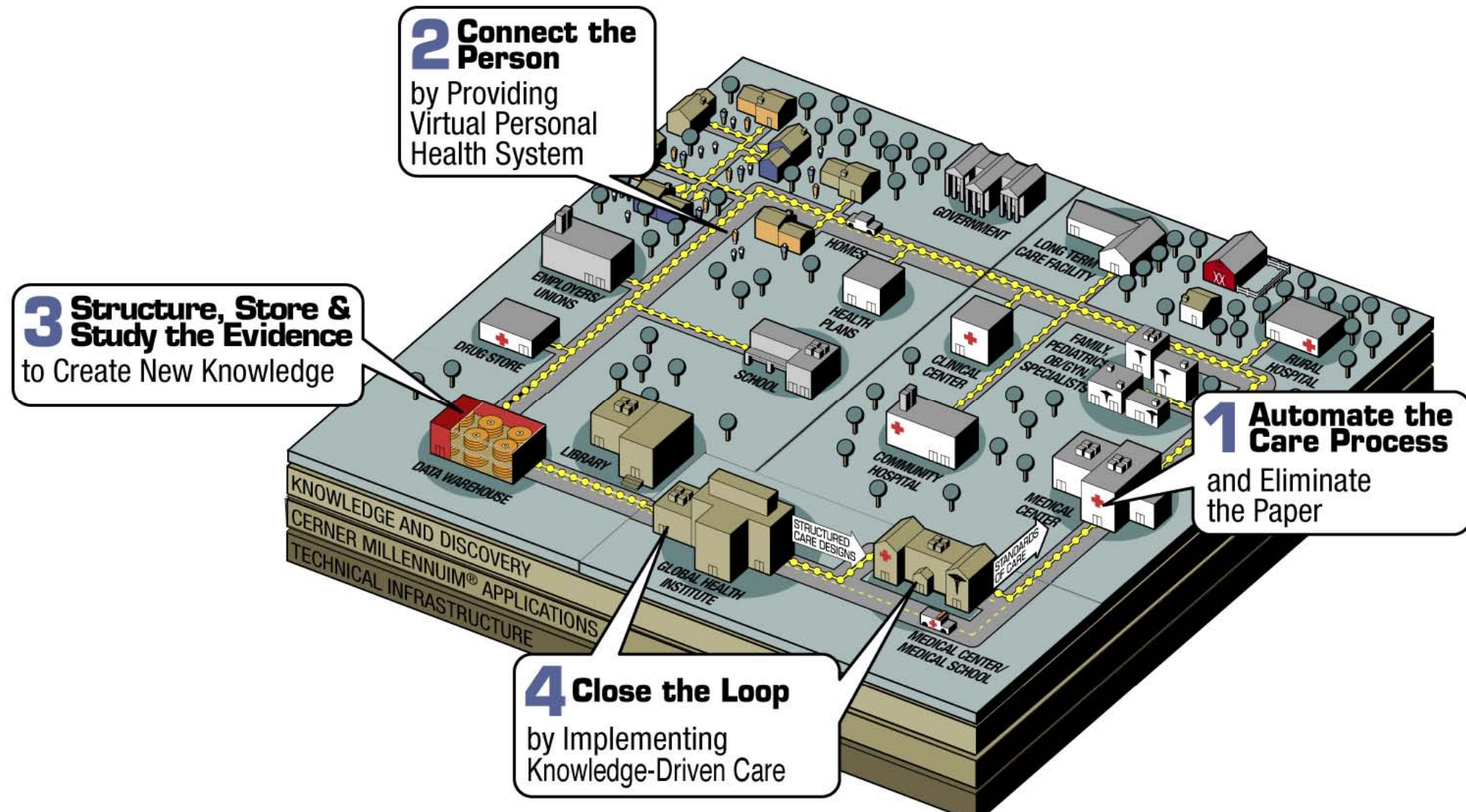


Cerner Diabetes Initiative



Cerner's Community Model Is Reality

266 Unique Clients Live, 642 Unique Sites Live (As of 7/04)

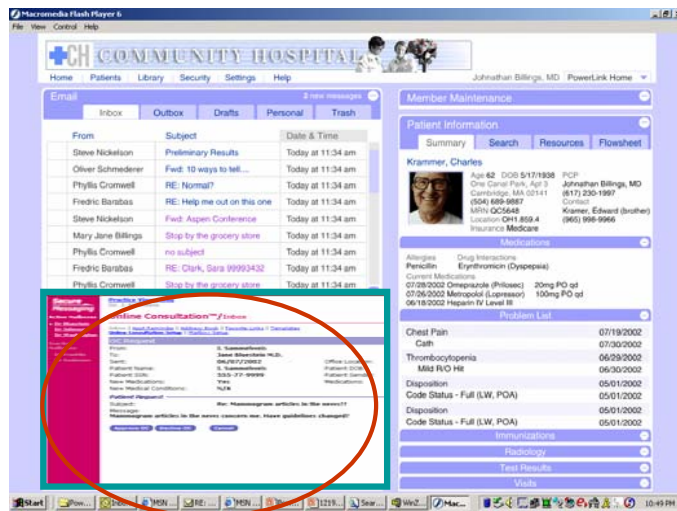


Cerner Diabetes Initiative

Cerner Millennium Database Contains Both The EMR & PHR

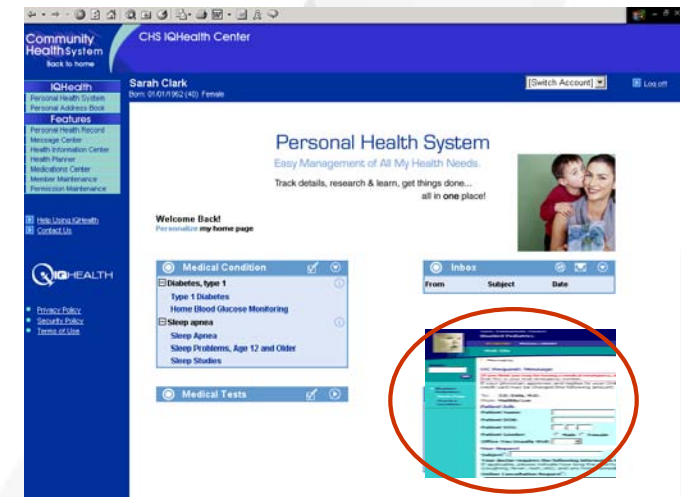


Doctor's access *Online Consultation* through a portlet



(Supports CKI Vocabularies)

Consumers access *Online Consultation* through a portlet



Cerner Diabetes Initiative



Cerner Clients Connect The Person

Organization Type	Market	Disease Center(s)	Goal
99 bed community hospital	Community hospital; focus on disease mgmt	Diabetes	Contain patient base – improve community health
3 Hospital IDN	Small metropolitan; competitive	Pediatric Diabetes, Asthma	Improve care process – reduce paper
3 Hospital IDN	Community hospital(s) – extend services	CHF, Diabetes	Improve efficiency; extend services; marketing; VISION
2 Hospital IDN	Community hospital(s) – extend services	Asthma, Diabetes, CHF; Cancer	Community Health; School system; health plan benefit

- 28 signed clients
- 14 LIVE clients
- 11,095 consumers
- 1550 physicians



Cerner Diabetes Initiative



MEDIA RELEASES

CERNER MEDIA: Justin Scott
(816) 201-6438 jscott@cerner.com

CERNER INVESTORS: Allan Kells
(816) 201-2445 akells@cerner.com

SENTARA MEDIA: Public Relations
(757) 552-7200 pr@sentara.com

Cerner to provide records for juvenile diabetics

Kansas City, Mo.-based Cerner Corp. will spend \$25 million over 10 years to provide personal health records to up to 1.3 million children with juvenile diabetes, enabling them to connect with their physicians to transmit test results, improve care management and reduce physician visits and hospital admissions.

Neal Patterson, chief executive officer and chairman of the board at Cerner, told *Modern Healthcare* today that the healthcare technology company is working with 12 children's hospitals, including Children's Hospital Boston, Children's Hospital Los Angeles and Children's Mercy





Diabetes And The Internet Provide Opportunity

Type I Diabetes

- Every year, **13,000 children** are diagnosed with diabetes (JDF)
- One in every 400 children and adolescents has type 1 diabetes (ADA)
- The risk of developing type 1 diabetes is higher than all other severe childhood chronic diseases (ADA)
- Type 1 diabetes costs almost **\$100 billion** (JDF)
- Life expectancy for diabetics is an average **15 years shorter** (JDF)

Internet Usage

- **73 percent** of adults are now online, 44 percent have broadband (Harris Online)
- **More than 75 percent** of ages 12 -17 use the Internet (Pew Internet & American Life)
- Internet is a primary channel of health information for more than **80 million consumers** (Manhattan Research)
- The Internet has had a major impact on the way **50% of U.S. physicians** practice medicine (AMA)



Cerner Diabetes Initiative



Cerner's Portal For The Juvenile Diabetes Foundation

Back

Forward

Stop

Refresh


Home

AutoFill

Print

Mail

@ Cerner Corporation: Health Care Information T...

 **CERNER**
Innovation you can trust.

Home

Solutions

Consulting

Technologies

Support

Events

About Cerner

UNITED STATES

➔ Children's Type 1 Diabetes Initiative

Cerner recently announced its plan to provide a personal health record (PHR) to every child with Type 1 diabetes in the United States to better monitor and treat this chronic condition. Through the program, Cerner will work with hospitals across the country to provide a secure physician connection to participants, creating a national network to help improve health outcomes for children with diabetes. If you have any other questions, please contact diabetes@cerner.com.

FAQ

Articles

IQ Health

Diabetes News

Oct. 12, 2004

[Cerner to provide Personal Health Records to Kids with Diabetes.](#)

Articles

View the [NBC News segment](#)

Read the [CNN story](#)

Read the [Modern Healthcare story](#) (free registration required)

Parents, Children

who want more information

If your child or a child you know has type 1 diabetes and you would like to more information about this program, please complete the form below.

Name

E-mail

Zip Code

Phone #

Clinicians, Administrators

who want more information

If you are a clinician or an administrator who cares for children with type 1 diabetes and would like more information about this program, please complete the form below.

Name

E-mail

Zip Code

Phone #

Suppliers, Partners, Organizations

who want more information


If you are a supplier, partner or organization who cares for children with type 1 diabetes and would like more information about this program, please complete the form below.

Name

E-mail

Zip Code

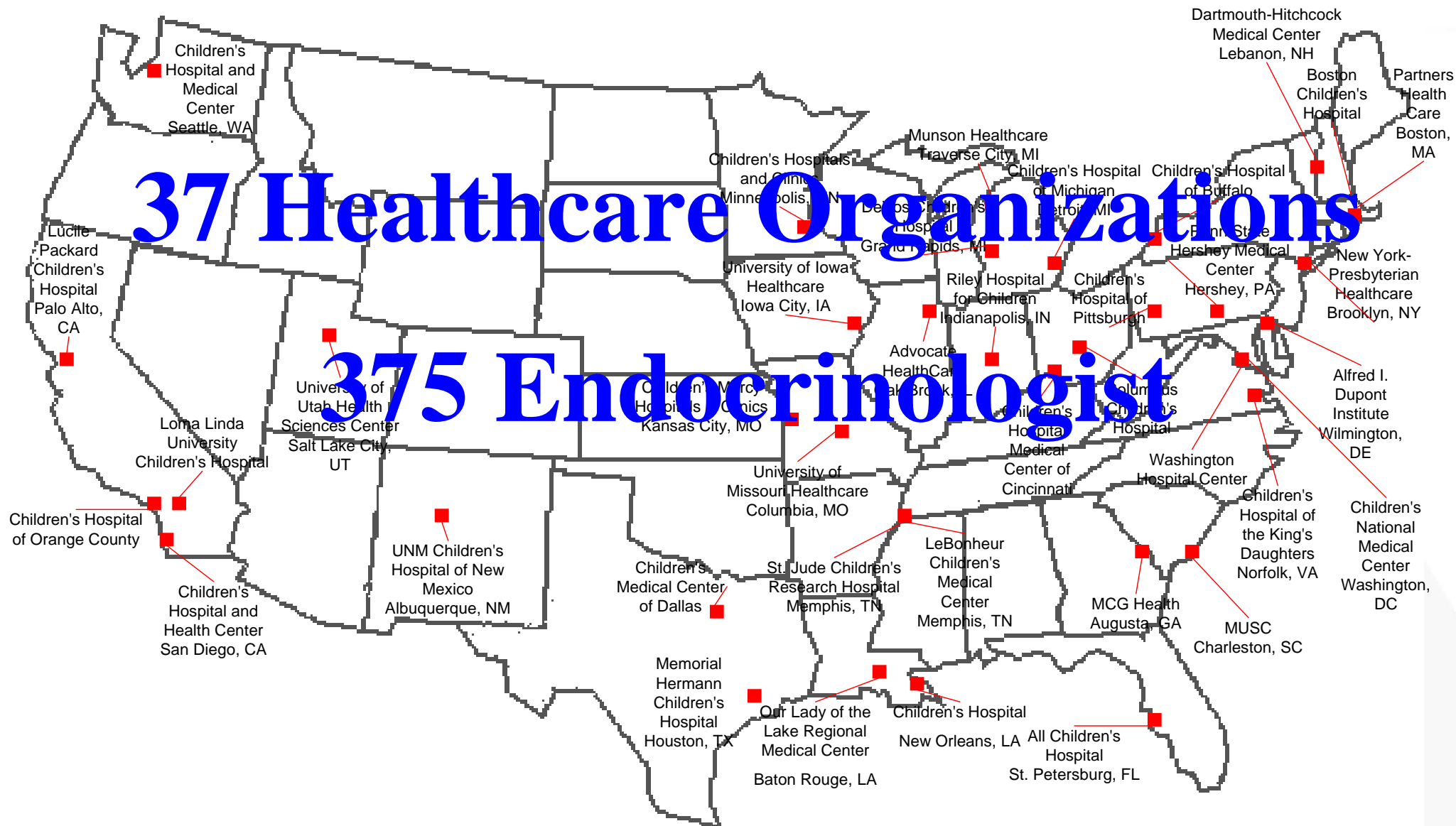
Phone #

 **CERNER**

Cerner Diabetes Initiative



37 Healthcare Organizations
375 Endocrinologist



Cerner Diabetes Initiative

Functionality For The Patient

My Diary

My Diary Summary

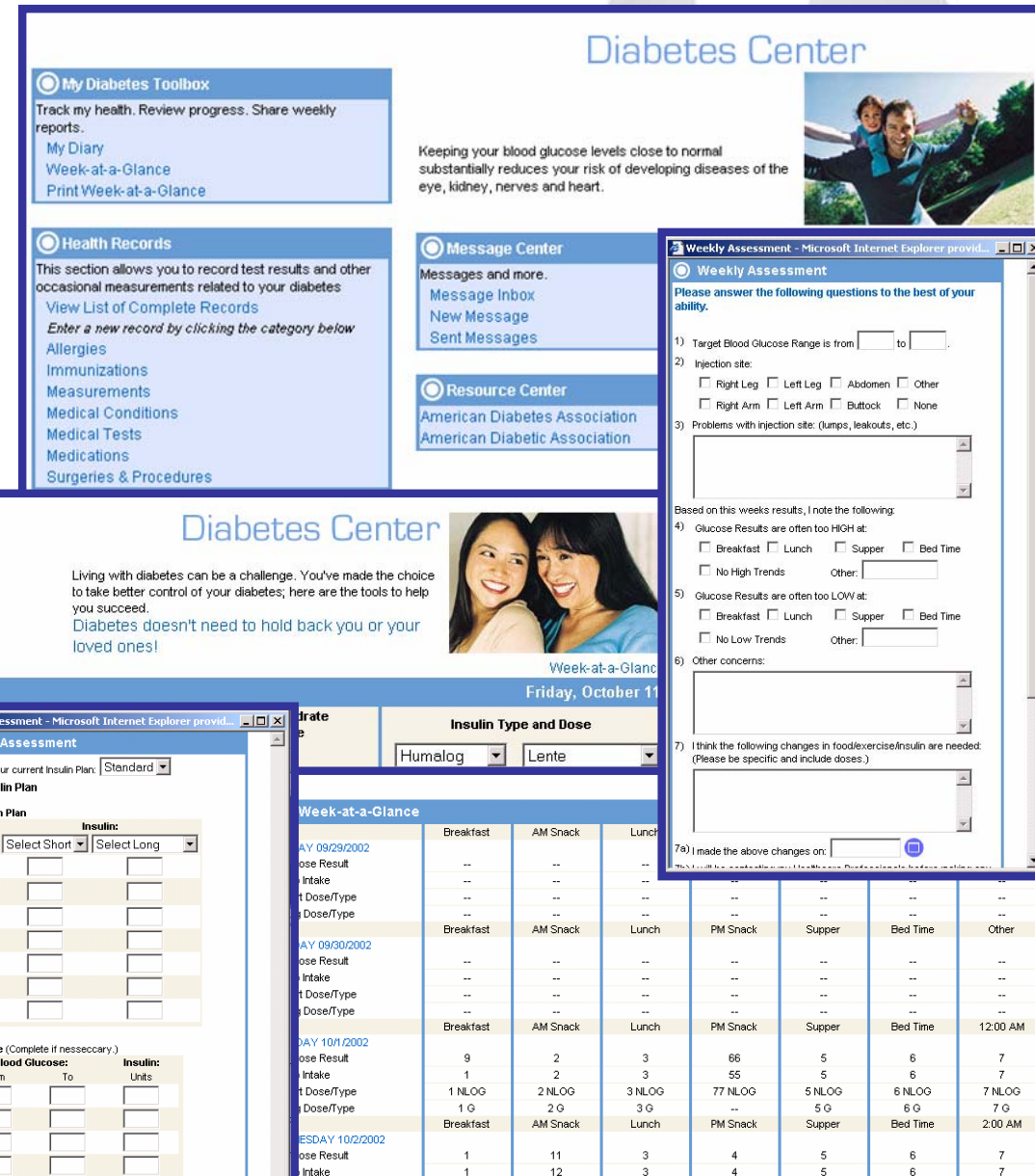
My Plan

Assessments - custom

Health content - custom

Submission to clinician

Connectivity with clinician



The image displays the Cerner Diabetes Center patient portal interface, which is accessible via a web browser. The main header reads "Diabetes Center". Below this, there are several navigation tabs: "My Diabetes Toolbox", "Health Records", "Message Center", and "Resource Center". The "My Diabetes Toolbox" tab is currently selected, showing options for "My Diary", "Week-at-a-Glance", and "Print Week-at-a-Glance". The "Health Records" tab shows options for "View List of Complete Records", "Enter a new record by clicking the category below", "Allergies", "Immunizations", "Measurements", "Medical Conditions", "Medical Tests", "Medications", and "Surgeries & Procedures". The "Message Center" tab shows options for "Messages and more.", "Message Inbox", "New Message", and "Sent Messages". The "Resource Center" tab shows links to the "American Diabetes Association" and "American Diabetic Association".

The interface also features a "Weekly Assessment" section, which includes a "Weekly Assessment" form and a "Week-at-a-Glance" summary. The "Weekly Assessment" form contains questions about blood glucose levels, injection sites, and other concerns. The "Week-at-a-Glance" summary provides a visual overview of the patient's blood glucose levels over a period of time, with a table showing data for "DAY 09/29/2002", "DAY 09/30/2002", "DAY 10/1/2002", and "ESDAY 10/2/2002".

The "Week-at-a-Glance" table includes columns for "Breakfast", "AM Snack", "Lunch", "PM Snack", "Supper", "Bed Time", and "Other". The data is presented in a grid format, with rows for each day of the week. The table shows that the patient's blood glucose levels are generally within the target range, with some fluctuations. The "Bed Time" column shows that the patient is sleeping at 12:00 AM.

The "Weekly Assessment" form includes a "Weekly Assessment" section with the following questions:

- 1) Target Blood Glucose Range is from [] to [].
- 2) Injection site:
☐ Right Leg ☐ Left Leg ☐ Abdomen ☐ Other
☐ Right Arm ☐ Left Arm ☐ Buttock ☐ None
- 3) Problems with injection site: (lumps, leakouts, etc.)
- 4) Based on this weeks results, I note the following:
Glucose Results are often too HIGH at:
☐ Breakfast ☐ Lunch ☐ Supper ☐ Bed Time
☐ No High Trends Other: []
- 5) Glucose Results are often too LOW at:
☐ Breakfast ☐ Lunch ☐ Supper ☐ Bed Time
☐ No Low Trends Other: []
- 6) Other concerns:
- 7) I think the following changes in food/exercise/insulin are needed:
(Please be specific and include doses.)
- 7a) I made the above changes on: []

The "Weekly Assessment" form also includes a "Standard Insulin Plan" section with a "1) Basal Insulin Plan" and a "2) Sliding Scale (Complete if necessary)" section. The "1) Basal Insulin Plan" section includes a "Time:" dropdown menu with options for "Select Short" and "Select Long", and a "Insulin:" dropdown menu with options for "Standard" and "Lente". The "2) Sliding Scale (Complete if necessary)" section includes a "Blood Glucose:" dropdown menu with options for "From" and "To", and a "Insulin:" dropdown menu with options for "Units".

Cerner Diabetes Initiative

Functionality For The Clinician

- Connectivity with patient
- View patient record
- Lab results
- Enrollment, program
- management, patient tracking

The image displays three overlapping screenshots of the Cerner Web Experience interface, a Microsoft Internet Explorer application. The top screenshot shows a patient summary for Ted Swift, including demographics, allergies, medications, and vital signs. The middle screenshot shows an inbox of messages with a detailed view of a message from Sarah Dahlhauser. The bottom screenshot shows a schedule for Jim Poteet with various consultation visits.

Cerner Web Experience - Microsoft Internet Explorer

Worklist: **Swift, Ted** MRN: 259 Age: 54 Y Gender: Male DOB: 10/1/1950 PCP: Beller, Michael

Chart Patient Summary View

Orders

- Vital Signs
- Lab
- Medications
- Current
- Summary
- Prescription
- Inpatient
- Outpatient
- Drug FlowSheet
- MAR
- Radiology
- Problems/Dx
- Problems
- Diagnosis
- Procedures
- Allergies
- Physician Notes

Patient Demographics

Swift, Ted
54 Y M 10/1/1950
Aetna Missouri POS Open
MRN: 259
Home Address: 100 Main St., London, UT 84042 USA
Home Phone: 8017850909

Allergies Add...

Allergy	Reaction	Sensitivity	Reaction
penicillin	Hives		

Diagnosis Add...

Diagnosis	Code	Onset
CELLULITIS AND ABSCE...	682.9	2/25/...
Hyperlipidemia	272.4	2/16/...
Hypertension	64176011	2/4/2...
Hypertension, essential	401.9	2/7/2...
ROUTINE INFANT OR C...	V20.2	2/25/...

Problems Add...

Current	Code	Onset Date
Hyperlipidemia	272.4	1/1/1999
Hypertension	401.9	1/1/1994

Visits

Clinical	Diagnosis	Type	LOS
Hyperlipidemia		Outpatient	4 D

Medications, Current (All Active)

Prescriptions

Celebrex 200 mg oral capsule: 1 ca
Vasotec 2.5 mg oral tablet: 1 tab(s)
Zestril 20 mg oral tablet: 20 mg | 1

Immunizations

Vaccine	Administered
influenza virus vaccine	1/31/2004

Vital Signs

10/20/2004 1/31/2004 → 5/16/2004
12:00:00 AM

Vital Signs

Temperature Oral DegC

Inbox 5 unread, 8 urgent

Incoming (76) New Message Actions...

Show Last 3 Months (Since 11/17/2003 9:59 AM)

Patient	Subject	Status	Date & Time
Kramer, Lisa	Message -		2/4/2004 12:25 PM
Holbrook, Rick	Message - On Call Update on Patient Holbrook	!	2/11/2004 1:03 PM
Kramer, Cosmo	Message - Kramer, Cosmo was admitted to the ER	!	2/12/2004 4:15 PM
	12-FER-2004.16:15:19 America/Chicago		
Kramer, Lisa	In Chart - Re: Med Renewal		2/16/2004 1:21 PM

Notes (29 total)

Donaubauer, Chad

Donaubauer, Chad

Carter, Catherine D

Kramer, Lisa

Boyd Jr., Jacob L

Details

MRN: 77000144
DOB: 1/1/1979
Age: 25 Y
Gender: F

From: Dahlhauser, Sarah
Received: 2/16/2004 1:21 PM
Called: -
Tel: -
Preview: -

Patients

Show: Jim Poteet Custom List

Name	Age	Gender	MRN
Camona, Ramona Lisa			
Carr, M			
Carroll, N			
Carter, James	M 49 Y		77000290
Cass, E			
Cawtheray, B			
Diego, Raul Santana	U 28 Y		MRN1277
Fung, Margene	F 83 Y		77000035
Jones, Joyce A	U 29 Y		MRN1255
Noir, Charlene Leah	F 41 Y		MRN1267
Prifty, Brian T	M 33 Y		77000037

Schedule Tuesday 2/10/2004

Poteet, Jim Actions... Day Week Month

10:00 Consult Visit (2004) Culp, BAF

10:05

10:10

10:15

10:20

10:25 Consult Visit (2004) Stetler, David

10:30

10:35

10:40

10:45

10:50

10:55

11:00 Consult Visit (2004) Culp, BAF

11:05

11:10

11:15

11:20

11:25

11:30

11:35 Consult Visit (2004) Culp, BAF

11:40

11:45

11:50

11:55

12:00

12:05 Consult Visit (2004) Culp, BAF

12:10

12:15

12:20

12:25

12:30

12:35

12:40 Consult Visit (2004) Culp, BAF

12:45

12:50

12:55

13:00

13:05

Jump to date: 2 / 16 / 2004 Go



Cerner Diabetes Initiative

Seth Rupp
Vice President
NCVHS Hearing
November 12, 2004