

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

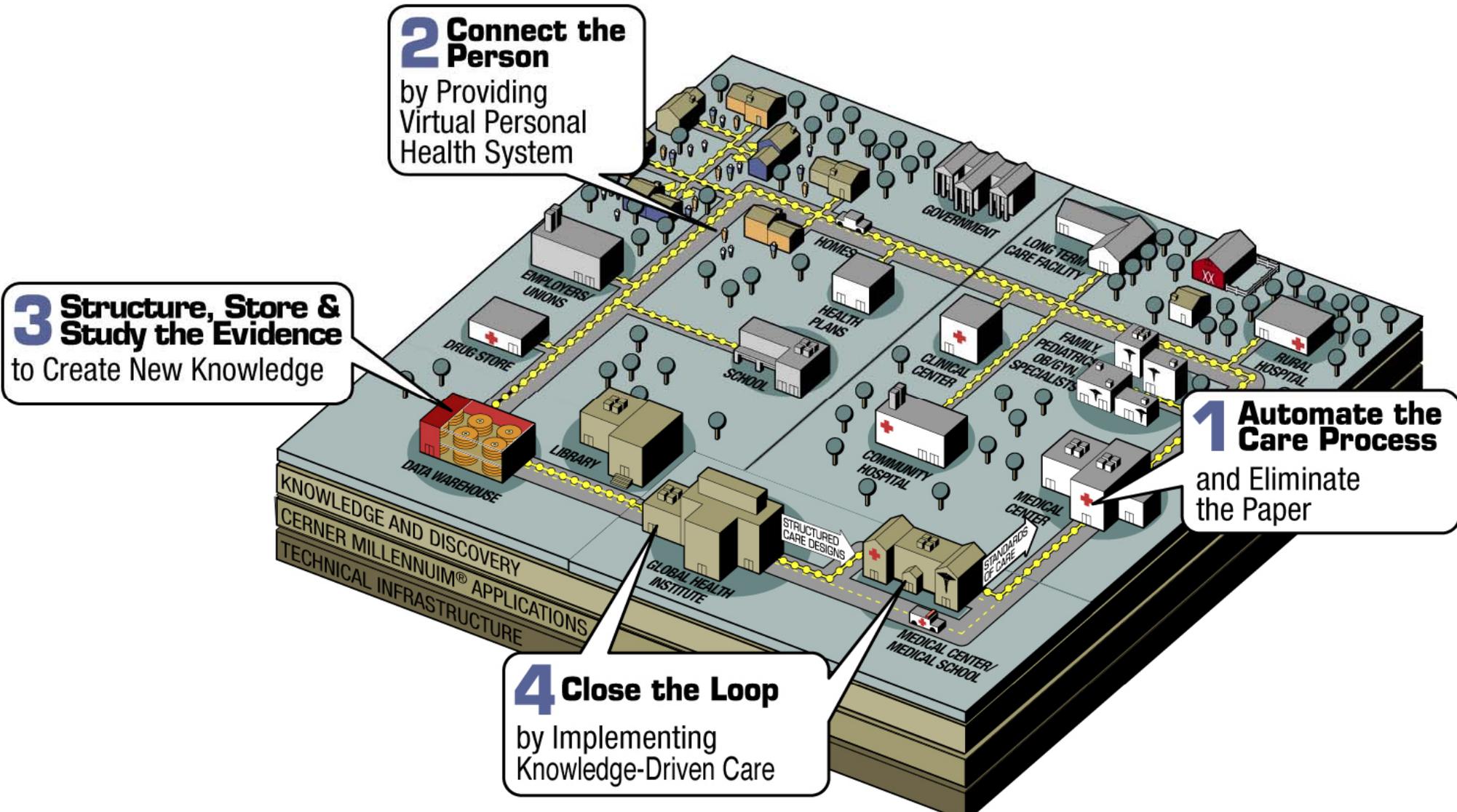


Cerner Diabetes Initiative



Cerner's Community Model Is Reality

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



Cerner Diabetes Initiative



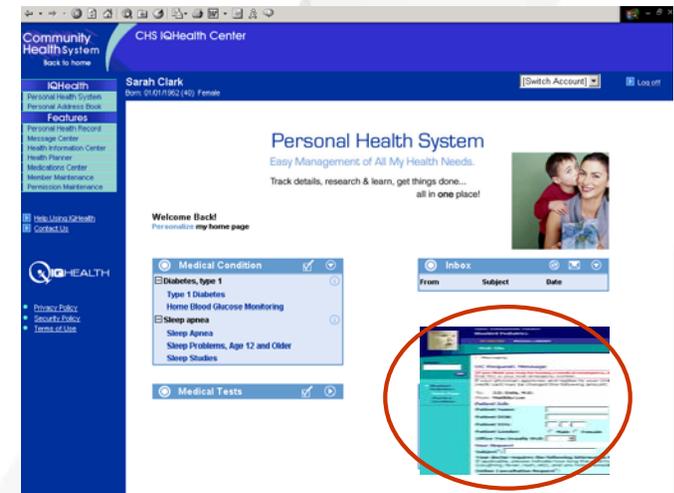
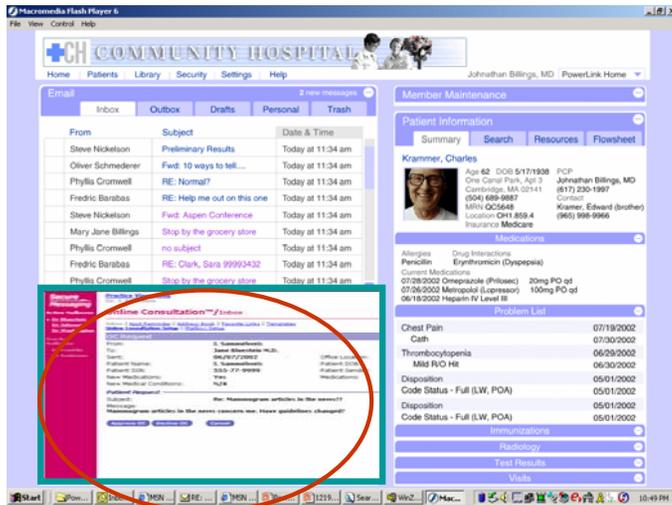
Cerner Millennium Database Contains Both The EMR & PHR



Doctor's access *Online Consultation* through a portlet

Consumers access *Online Consultation* through a portlet

(Supports CKI Vocabularies)



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



Spectrum Health



- 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



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](#)

Fill out a form below to request 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 #



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 #



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 #

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)



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

Diabetes Center

My Diabetes Toolbox
Track my health. Review progress. Share weekly reports.

- My Diary
- Week-at-a-Glance
- Print Week-at-a-Glance

Keeping your blood glucose levels close to normal substantially reduces your risk of developing diseases of the eye, kidney, nerves and heart.

Health Records
This section allows you to record test results and other occasional measurements related to your diabetes

[View List of Complete Records](#)

Enter a new record by clicking the category below

- Allergies
- Immunizations
- Measurements
- Medical Conditions
- Medical Tests
- Medications
- Surgeries & Procedures

Message Center
Messages and more.

- Message Inbox
- New Message
- Sent Messages

Resource Center

- American Diabetes Association
- American Diabetic Association

Diabetes Center

October 2002

S	M	T	W	T	F	S
	1	2	3	4	5	
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

My Diary

- Breakfast
- AM Snack
- Lunch
- PM Snack
- Supper
- Bed Time
- Other

Living with diabetes can be a challenge. You've made the choice to take better control of your diabetes; here are the tools to help you succeed.

Diabetes doesn't need to hold back you or your loved ones!

Week-at-a-Glance
Friday, October 11

Weekly Assessment

Please answer the following questions to the best of your ability.

- Target Blood Glucose Range is from to .
- Injection site:
 - Right Leg Left Leg Abdomen Other
 - Right Arm Left Arm Buttock None
- Problems with injection site: (lumps, leakouts, etc.)

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:
- Glucose Results are often too LOW at:
 - Breakfast Lunch Supper Bed Time
 - No Low Trends Other:
- Other concerns:
- I think the following changes in food/exercise/insulin are needed: (Please be specific and include doses.)
- I made the above changes on:

Insulin Type and Dose

Humalog Lente

Weekly Assessment

Please select your current insulin Plan: Standard

Standard Insulin Plan

1) Basal Insulin Plan

Time:	Insulin:	
	Select Short	Select Long
Breakfast:	<input type="text"/>	<input type="text"/>
AM Snack:	<input type="text"/>	<input type="text"/>
Lunch:	<input type="text"/>	<input type="text"/>
PM Snack:	<input type="text"/>	<input type="text"/>
Supper:	<input type="text"/>	<input type="text"/>
Bed Time:	<input type="text"/>	<input type="text"/>
Other:	<input type="text"/>	<input type="text"/>

2) Sliding Scale (Complete if necessary.)

Blood Glucose:		Insulin:
From	To	Units
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Week-at-a-Glance

	Breakfast	AM Snack	Lunch	PM Snack	Supper	Bed Time	Other
AY 09/29/2002	--	--	--	--	--	--	--
Dose Result	--	--	--	--	--	--	--
Intake	--	--	--	--	--	--	--
1 Dose/Type	--	--	--	--	--	--	--
Dose/Type	--	--	--	--	--	--	--
AY 09/30/2002	Breakfast	AM Snack	Lunch	PM Snack	Supper	Bed Time	Other
Dose Result	--	--	--	--	--	--	--
Intake	--	--	--	--	--	--	--
1 Dose/Type	--	--	--	--	--	--	--
Dose/Type	--	--	--	--	--	--	--
DAY 10/1/2002	Breakfast	AM Snack	Lunch	PM Snack	Supper	Bed Time	12:00 AM
Dose Result	9	2	3	66	5	6	7
Intake	1	2	3	55	5	6	7
1 Dose/Type	1 NLOG	2 NLOG	3 NLOG	77 NLOG	5 NLOG	6 NLOG	7 NLOG
Dose/Type	1 G	2 G	3 G	--	5 G	6 G	7 G
ESDAY 10/2/2002	Breakfast	AM Snack	Lunch	PM Snack	Supper	Bed Time	2:00 AM
Dose Result	1	11	3	4	5	6	7
Intake	1	12	3	4	5	6	7



Cerner Diabetes Initiative



Functionality For The Clinician

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

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
penicillin	Hives
Sensitivity	Reaction

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
Hypertensio...	401.9	1/1/1994

Visits

Clinical Diagnosi	Type	LOS
Hyperlipidem...	Outpatient	4 D

Allergies Add...

Allergy	Reaction
penicillin	Hives
Sensitivity	Reaction

Medications, Current (All Acti...

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	Administer
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
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

Patients

Show: Jim Poteet Custom List

Name	Age	Sex	DOB	MRN
Camona, Ramona Lisa				7700037
Carr, M				7700036
Carroll, N				7700035
Carter, James	M 49 Y			77000290
Cass, E				7700034
Cawtheray, B				7700033
Diego, Raul Santana	U 28 Y		6/29/2003	b MRN1277
Fung, Margene	F 83 Y		2/19/2003	01 77000035
Jones, Joyce A	U 29 Y		4/29/2003	f MRN1255
Noir, Charlene Leah	F 41 Y		4/29/2003	A MRN1267
Prifty, Brian T	M 33 Y		12/18/2003	206 77000037

Details

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

View Chart...

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

Reply Forward Defer Delete

Preview: -

Schedule Tuesday 2/10/2004

Poteet, Jim Actions... Day Week Month

10:00

10:05 Consult Visit (2004) Culp, BAF

10:10

10:15

10:20

10:25

10:30 Consult Visit (2004) Stetler, David

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 Consult Visit (2004) Culp, BAF

11:35

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

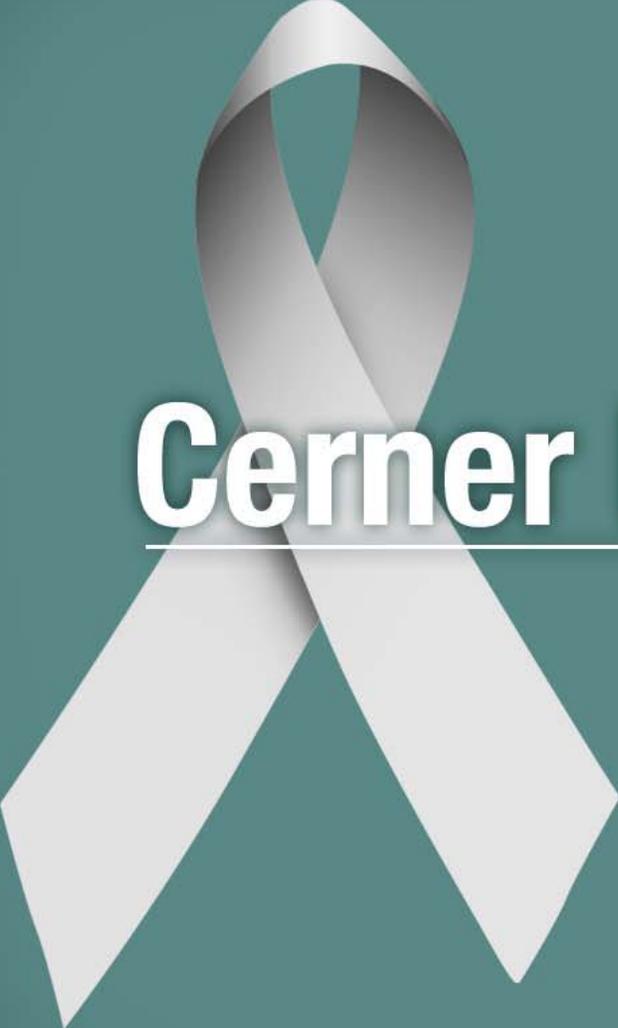
12:55

13:00

13:05

Jump to date: 2 / 16 / 2004 Go





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