EMR Financing

Northwood Deaconess Health Center
Pete Antonson
AKA

- It’s going to cost how much???
Phase One Business Applications

- Payroll
- General ledger
- Accounts payable
- Resident trust fund accounting
- Hospital and nursing home billing, accounts receivable.
- Nursing home census
Phase One Price

- $100,000
Phase 2

- Order management
- Lab information system
- Physician view
- Pharmacy information
- Radiology information
- Clinical documentation
- Medical transcription
Phase 2 Price

- Including the existing client incentive $245,056
Additional costs

- Increase in annual support $25,742
- CPT License $200
- Medication database $4,900
- Medical necessity $5,500
Hardware / Software
Where as were prior to implementation?

- We were an existing wired network throughout the facility. Computers at all managers desk tops, all office staff desk tops, and the nurses stations
- We had internet connectivity
- We had desk top e-mail with private domain. (not hotmail or yahoo mail)
Additional hardware investments

- Computer servers
- Additional desk top PC’s
- Additional lap tops
- Mobile carts for lap tops
- Wiring for “wireless” connectivity
- Additional internet access costs
Total Hardware / Connectivity

- $71,700
Staffing / Training

- NDHC had one FTE prior to implementation for HR and IT.
- Staff travel and training to vendor site
- Phase one business office – 4 staff for one week off site
- Phase two – Super user training 6 staff to build master files, databases, and order sets – one week out of office.
- User training 17 staff for one week out of office.
- Form building and background work by super users back at facility. Hours - countless
Staffing / Training

- 1 to 2 hours training for low volume users. How to use a mouse, log in, etc.
- Multiple hours per person on a learning curve. We started in September with hospital and we are still on it.
- Nursing home installed January 2009.
What’s the bottom line?

- Item
  - Phase one software
  - Phase two software
  - Hardware and related
  - Off site training
    Estimated at $250 per person per day to include salaries, meals, motel, travel, etc.

Total identifiable

- Price
  - $100,000
  - 245,056
  - 71,700
  - 33,750

- $450,506
Not identified

- Form building and set up by super users at facility
- 1 to 2 hours training for low volume users. How to use a mouse, log in, etc
- Multiple hours per person on a learning curve. We started in September with hospital and we are still on it.
CEO Role

- Find the money!
- Support your IT staff
- Cheerleader
Everything You Wanted to Know About Costs of an EMR
BUT
Didn’t Know What to Ask!

First Care Health Center
Park River, ND
Louise Dryburgh
Purpose

• How much did the EMR cost
• How did we pay for it
• What we wish we would have known
• What we have learned
First Care Health Center

- FCHC is 14-bed CAH and Rural Health Clinic in Park River
- One Family Practice MD; one PA-C; one General Surgeon
- 80 full and part-time employees
- Building and remodeling project completed Fall 2007
- Average 60% Medicare
What FCHC had in place - EMR

- All patient rooms, exam rooms, and offices hardwired with CAD 6
- Three wireless access points in clinic training room
- Initial staff survey re: computer usage
- Had been using American Healthnet for financials; needed to make upgrade
- Reviewed Dairyland and American Healthnet products in spring/summer 2007
Counting the Costs

Software for Rural Health Clinic and Hospital

$410,258.00

Hardware
(terminal server, applications server, print server)

$ 95,986.00
Counting the Costs

- Other equipment $63,000.00
  - Computers (10 laptops, 7 mobile C5’s, 8 desk top)
  - Small Scanners (2 @ registration, 1 @ nurses’ station, 1 @ business office)
  - Large Scanner @ Health Information
  - Large Printers (lab, clinic, business office, HIS)
  - Small (Zebra) Printers for labels (lab, pharmacy, CSR, clinic nurses’ station, hospital nurses’ station)
  - Small (Zebra) Printer for wrist bands (hospital nurses’ station)
  - Wireless access points -- 3 for hospital
  - Other miscellaneous including switches, cable, dual screens
  - Mobile devices (be creative)
Counting the Costs

- Training Healthland staff on-site $70,000.00
- Training FCHC staff $85,000.00
- Total Cost $724,244.00
How Did FCHC Pay for EMR?

- HIT Grant $328,503.95
- SHIP Grant $8,782.00
- Dakota Medical Foundation Match Grant $15,000.00
- First Care Health Center $371,958.05
- Total $724,244.00
Upcoming Costs

- Yearly Healthland Support Cost $ 50,000.00
- Staff training 
- VPN costs 
- Voice recognition software 
- Radiology PACS interface, finger print password, bar coding
What FCHC Would Like to Have Known

- Work flow analysis
- Training costs from both on site trainers and our own staff
- Providers wanted 5 years of clinic chart and 1 year of hospital chart scanned into record
- Speed of installation and implementation would create so much stress
- Every department affected either directly or indirectly
- Domino effect – any decision might impact every other department
- System we chose would speak two languages
- Impact of DENIAL MENTALITY
What FCHC Would Do Differently (What we have learned)

- More research prior to decision to better understand potential costs for equipment and training
- Include site visit to facility where all pieces are in place and working
- Roles/expectations defined for project managers and department managers
- Understand capabilities and expectations if working with off-site data center
Is EMR Worth the Cost???

- **Improved** quality of care and compliance with Government regulations

- **TEAM** building – the whole system works together and individuals and departments must also

- **CMS** project through QIO to improve rates for mammography, flu and pneumonia vaccinations, and colonoscopy screenings – better patient preventive care
Summary

- EMR’S are expensive
- Manage (allow) conflict – change is never easy
- Research to find a facility that is using system successfully
- Success is expectation
Vendor Selection and Relations

AKA “More Than A Feeling”

Chad Peterson
Northwood Deaconess Health Center
Vendor Selection

- Before the grant application even happened, we were starting to look at different vendors...
  - American HealthNet (Clarus)
  - Dairyland (now Healthland)
  - McKesson
Grant Application

- Software Vendor Selection
- Data Center
- Timelines
Vendor Selection

- Who can provide all the modules (Financial, Payroll, Clinical, LTC Clinical, MDS, Care Plans, LIS, RIS) we need, with a budget we can afford and in the timeline we need to meet?
Criteria

- Capability of the software
- Cost
- Knowledge of Vendor – are other sites using this software
- Installation Timelines
- Sustainability
- Data Center Model
- KLAS Report
- Interoperability (Standards)
Vendor Selection
Decision Process

- Not a perfect process
- Dairyland group demo in Mayville
- Clarus group demo in Northwood
- McKesson demo on-line
Grant notification happened in late August/early September

- Accelerated Decision Making Process
- Signed Purchase Agreement with American HealthNet in November 2007 after consulting with 10-12 NDHC Managers/Users and NDHC Board of Directors
Why Clarus?

- Stated they could provide all the modules we were looking for.
- Affordability - $150K cheaper than what Dairyland was quoting us.
- Other facilities we contacted stated their satisfaction with the product and service.
- Would work well in our data center.
- Other area CAHs leaning toward Clarus, as well...
- Existing Relationship – had worked with the company since 1998.
Vendor Selection Process

- NDHC Management did what they had to do to implement the software within the timeline specified in the grant
  - Happy to say that ownership of the project transitioned from CEO/CIO level to User Ownership in February 2009
- Was it perfect?
- Would we do it this way again?
What would we do differently?

- Specifically appoint a dedicated, multi-disciplined team to run the process
- Provide more quantitative tools for the selection team to use as part of their process
Clinical Application

A pessimist sees the difficulty in every opportunity;
An optimist sees the opportunity in every difficulty.

First Care Health Center
Park River, ND
Lori Seim
Project Managers

- What is a project manager?
- What are the expectations?
- There should be two:
  - One with IT background
  - One with clinical background
  - They must be team players
  - They must be patient
What should you do to prepare?

- Talk to ALL the practitioners--are they in?
  - Ongoing Communication
- Talk to your employees--are they in?
  - Ongoing Communication
- Supervisors
  - Ongoing Communication
- Get input from each department
  - Where are they--staffing, equipment, computer skills
  - Soon is not a time
Preparing...

- Provide general computer education classes
  - the basics, literally: what is a mouse, mouse pad, keyboard, screen vs. monitor, CPU, and how to hook them up
  - keyboard training: what does the enter key really do; F1 – F12; Ctrl key
  - basic program training: how does a scroll bar work; how to use tool bar, where is spell check, page layout, what is difference between dbl click and single click, what is a tab, what is an ellipsis?
Preparing ...

- Network with a facility similar to yours
- Know that you are getting a blank slate
- Have policies in place—which ones?

GOOD QUESTION! 😊

- Downtime policy
- What information makes up your Legal Record
- Electronic Signature Policy
Preparing ...

- **Job descriptions**
  - Who actually does what...
    - who does release of information
    - who puts vitals into the patient chart
    - who does charges
    - who manages the pharmacy
    - who audits or does QI on charts
    - who does admissions...

This will determine who needs what training...
Training Room
Preparing ...

- **Training**
  - Have adequate space and equipment
  - Have step by step instructions
  - Plan to train; plan to retrain
  - Every person learns differently
    - Memos
    - Email
    - Person to person
    - Classes
    - Potty Training
Preparing ...

- **Admissions**
  - Who will actually be doing admissions
  - Teach each of those people SOMETHING about insurances, MSP, Guarantor vs Subscriber, insurance types, patient types
  - Do patients in PT and Cardiac Rehab check in every visit?
  - Where do outpatient surgical patients register—pre-admit?
  - Who registers inpatients, infusion/injections, port draws, and blood transfusions?
  - How does the paperwork get to the correct person
  - Where does the patient wait until you have a room ready
  - Who registers ER patients after hours?
Preparing ...

- How does a patient “flow” through your clinic?
  - Where do they register?
  - How does the nurse know when a patient is waiting?
  - How does the lab and XR know when a patient is ready?
  - How does the nurse know when lab or XR is needed on the patient in an exam room?

- How are old records going to get into the computer
  - Who will get them there—current employees, hire it out?
  - How far back will you go?
How has the EMR affected work flow—
(more like a tsunami than a flow!)

• Expect OT for a while
  • Building the system
  • Learning the system
  • Teaching the system
  • Updating the system

• Patient Centered Care
Nursing Staff
Once you have started, invest time into creating cheat sheets

- How to register a patient
- What to do for inpatient admissions
- What to do for transfer
- What to do for discharge
- Where to find things in the electronic patient chart (Legal Record ?)
- How do you do a care plan
- How do you order medication
Our Main launch screen
### The Patient Chart

#### Laboratory Results

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Test Description</th>
<th>Value</th>
<th>Flag</th>
<th>Normal Range</th>
<th>Units</th>
<th>Status</th>
<th>Specimen #</th>
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<td>16:03</td>
<td>WBC</td>
<td>5.0</td>
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<td>4.0 - 11.0</td>
<td>5-Final</td>
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<tr>
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<tr>
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<td>HEMATOCRIT</td>
<td>39.0</td>
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<td>38 - 50</td>
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<td>MCV</td>
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<td>80 - 95</td>
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<td>PLATELETS</td>
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<td></td>
<td>140 - 450</td>
<td>5-Final</td>
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<tr>
<td>09/22/08</td>
<td>16:03</td>
<td>RDW</td>
<td>13.6</td>
<td></td>
<td>11.5 - 14.6</td>
<td>5-Final</td>
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<td>09/05/08</td>
<td>16:02</td>
<td>NEUTROPHILS</td>
<td>53</td>
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<td>NEUTROPHIL, BAND</td>
<td>2</td>
<td></td>
<td>0 - 6</td>
<td>5-Final</td>
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<td>16:02</td>
<td>LYMPHOCYTES</td>
<td>27</td>
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<td>RBC MORPHOLOGY</td>
<td>See Comments</td>
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</table>
## A Clinic Visit

### Medical History

<table>
<thead>
<tr>
<th>Problem</th>
<th>Year</th>
<th>Chronicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>[0023] PARATYPHOID FEVER C</td>
<td>2006</td>
<td></td>
</tr>
<tr>
<td>[4280] CONGESTIVE HEART F</td>
<td>2005</td>
<td></td>
</tr>
<tr>
<td>[5849] ACUTE RENAL FAILURE</td>
<td>2001</td>
<td></td>
</tr>
<tr>
<td>CVA</td>
<td>1997</td>
<td>No Longer...</td>
</tr>
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</table>

### Surgical History

<table>
<thead>
<tr>
<th>Description</th>
<th>Date</th>
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<tbody>
<tr>
<td>[00164] ANESTH, BIOP...</td>
<td>01/2007</td>
</tr>
<tr>
<td>Lobotomy</td>
<td>04/2003</td>
</tr>
<tr>
<td>[51925] HYSTERECTOMY...</td>
<td>03/2003</td>
</tr>
<tr>
<td>Gallbladder</td>
<td>01/2001</td>
</tr>
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</table>

### Social History

<table>
<thead>
<tr>
<th>Description</th>
<th>Notes</th>
<th>Start</th>
<th>Stop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education level</td>
<td>2 ye...</td>
<td>1998</td>
<td>2000</td>
</tr>
<tr>
<td>Alcohol use -</td>
<td>6 dri...</td>
<td></td>
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</tbody>
</table>

### Current Medications

<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Dose/Schedule</th>
<th>Start Date</th>
<th>Stop Date</th>
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</thead>
<tbody>
<tr>
<td>ENALAPRIL MALEATE</td>
<td>1 TABLET OF 5MG BY MOU...</td>
<td>10/14/2008</td>
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<tr>
<td>FOSAMAX</td>
<td>1 TABLET OF 70MG BY MO...</td>
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<tr>
<td>LEXAPRO</td>
<td>1 TABLET OF 5MG BY MO...</td>
<td>10/14/2008</td>
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<tr>
<td>PROTONIX</td>
<td>1 TABLET OF 20MG BY MO...</td>
<td>10/15/2008</td>
<td></td>
</tr>
<tr>
<td>TYLENOL EXTRA STRENGTH</td>
<td>1 TABLET OF 500MG BY M...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZITHROMAX Z-PAK</td>
<td>1 PACK OF 250MG BY M...</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Order Entry for Department Orders
How to order a medication
In conclusion...

1. Project managers--choose wisely
2. Staff buy in--communication
3. Plan for education and training
4. Get your policies on paper
5. You are not alone
6. This is a difficult opportunity--

Are you the optimist or the pessimist?
Pembina County Memorial Hospital, CliniCare and Wedgewood Manor

Provider Engagement Sustainability

CAH HIT Grant
EMR Installation 2008
ArvaDell Sharp
Robert Heidt
Overview

- Make up of facilities and providers
  - PCMH and Clinicare
    - 2 physicians
    - 1 surgeon
    - 1 mid level
  - Wedgewood Manor – long term care
  - Altru clinic - Cavalier
    - 3 physicians
    - 1 mid level
Background & Decision Making

- 2002 implemented financial software
- Oct 2007 EMR demonstration
- Nov 2007 final vendor selection
Implementation

• Summer 08 – long term care
• Fall 08 – hospital
  • Order entry
  • Clinical documentation
• Fall 08 – clinicare
• Nov/Dec 08 EMR up and running!!
Goal

To improve the continuity of patient care for our clinic, hospital, outpatients, and nursing home residents by having access to their medical records on EMR.
Lessons

- Evaluate computer skills.
- How will the providers document?
- Computer access.
- Time management.
- Review your state/federal rules & regulations and bylaws.
- Administration’s support!
Sustainability of EMR System

Key Factors
- Planning
- Support
- Policies
- Facility Utilization
- Ongoing costs
Planning for the ongoing support of the system is key to its success.

- A necessary part of vendor selection, and purchase decisions.
- Look long term
  - Vendor support
  - Facility Support
  - Certifications
  - Vendors stability
  - Ongoing costs/budget impact
  - Goals and time line
Vendor/Product

- Support options
- Track record of vendor support
- Product enhancements and changes
- Ability to exchange information with other systems
- Training both initial and ongoing
- Software/Modules covers your needs
- Partner
Facility Support

- IT support
- Infrastructure
- Hardware
- Power or Super Users
- Training
- Disaster planning
- Budgeting for updates to systems
Policies

- Transition
- Ability to adapt
- Look at early in the process
Facility Utilization

- Buy in from staff
- Buy in from providers
- Leadership to support the project
- Training and ongoing training
- Have enough people trained to support the system
- Embrace change
Ongoing Costs

- Maintenance costs
- Hardware
- Communication
- New module or software acquisition
Final Thoughts – Questions

Thank You