Slide 1

Thank you for joining today's live on-line training:

"**Implementation of an Electronic Dental Record Following Expansion to Multiple Locations for CHCs**"

Presented By: Clifford Hames, DDS
                 Chief Dental & Infection Control Officer
                 Hudson River Health Care, Inc.

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Slide 2

Implementation of an Electronic Dental Record Following Expansion to Multiple Locations for CHCs

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Clifford Hames, DDS
Chief Dental & Infection Control Officer
Hudson River Health Care, Inc.

June 20, 2007

Slide 3

Implementation of an Electronic Dental Record Following Expansion to Multiple Locations for CHCs

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- What a Title!   Way too complicated!
  - Let's break it down into simpler components:
    - Planning for expansion of your dental program (both internally & externally)
    - Adding more locations
    - Setting the stage for going digital
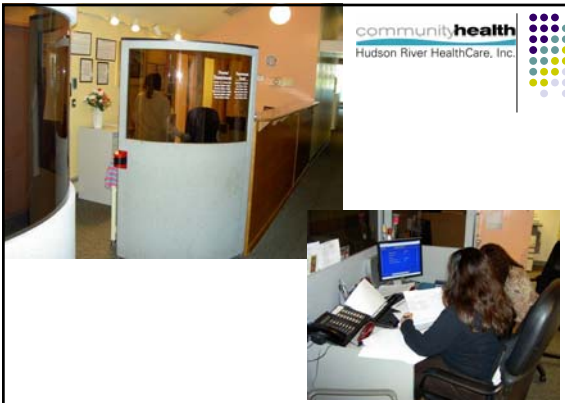   - Planning for a chartless office
    - Going "Live!"

Slide 4

Background

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- Let's start at the very beginning…..a very good place to start!
  - Hudson River HealthCare, Inc. (HRHC) started in 1975 as Peekskill Community Health Center by a group of mothers in the community who wanted to bring affordable primary health care services to the city of Peekskill instead of having to travel more than an hour by bus to the Westchester County Medical Center for care.
  - Dental was included from the start with 2 chairs.

Slide 5

Background

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- HRHC has grown from **1** site in Peekskill to a network of **15** health centers dispersed throughout the mid Hudson River valley as well as the eastern end of L.I.
- Dental has grown from 2 operatories in 1 location to 22 operatories in 7 locations, including:
  - 5 **fixed** locations (each inside a C/MHC)
  - 1 **mobile** van equipped with 2 operatories
  - 1 **school-based** preventive site location (Peekskill)

Slide 6

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5 Fixed Locations

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- **Peekskill** (since 1978)
  - Oldest site with 5 dental treatment rooms
  - School-Based Fluoride Rinse & Sealant Program since 1985
- **Goshen** (since 1990)
  - Started with portable dental equipment
- **Beacon** (since 2001)
  - Started with less than 500 square feet of space.
- **Walden** (since 2005)
- **Poughkeepsie** (since 2007)
- **Mobile Dental Vehicle** (2007)

Leadership

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- One **President & CEO** since 1975:
  - Anne Kauffman Nolon, MPH
- **5 Dental Directors**:
  - David Fong, DDS (1975-1980)
  - Leonard Lipton, DDS (1980-1981)
  - Egerton Maitland, DDS (1981-1982)
  - Georgina Zabos, DDS, MPH (1982-1993)
  - Clifford Hames, DDS (1993-Present)
- The success of our program largely reflects our dedicated staff and leadership.

Planning for expansion of your dental program

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- A separate topic in and of itself!
- The minutia of dental management demands organization and efficiency to survive.
- A well organized non-digital office will more easily migrate to a digital office environment compared to a less organized one.
- 70 cents of every dollar goes to overhead!

Planning for expansion of your dental program

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- Evaluate your appointment book:
  - Time to 3rd next available appointment
  - Backlog of appointments
  - % of Broken Appointments (NS/Cancellations)
- Calculate the number of active patients/DDS
- Perform a needs assessment of your "home" community and compare it to the community into which you will be expanding.

Planning for expansion of your dental program

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- Take inventory of your equipment to create a budget for your expansion by operatory
- Provide room for growth if at all possible
- Play an active part in the capital expansion of your service area by being "the dental expert"
- Plan ahead for going "chartless" and becoming digital!
  - READ! READ! READ!

Adding more locations

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- Work with your CEO to express your vision and your needs
- Expansion of CHCs in the 21st Century requires an oral health component as part of the expansion
- Get involved with the committee of decision-making people so your voice can be heard!
- Visit other CHCs that have expanded to gain perspective on the changes to come

Adding more locations

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- Create a 'minimum standard' to duplicate in treatment room design
- Work with a reputable dental equipment specialist and supplier
  - Get "word of mouth" recommendations from peers
  - Service reputation and reliability
  - Don't be penny-wise and pound-foolish
- Look at the big picture
- Plan for future expansion and needs

Adding more locations

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- Make changes while everything is on paper.
  - After plans are drawn & approved, changes cost $$$$$
- Visit the site before, during, and after construction begins.
- Trust….trust….but check!
- Do an actual walk-through as a patient and staff member to conceptualize flow of human traffic and minimize congestion.

Adding more locations

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- Check with your office planner/architect as well as your state health department.
  - Handicap access (doorways, bathrooms, egress)
  - Fire and Safety Codes
- Involve your staff in reviewing preliminary plans, blueprints, etc. to:
  - Get their feedback
  - Hear their wish lists
  - Instill a sense of ownership in the process

Adding more locations

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- Evaluate access to:
  - The building
  - The dental department
  - The treatment room
  - The dental chair
- Translate preliminary layouts of space into bubble diagrams separating:
  - Reception/Waiting Space
  - Business Area
  - Clinical Area

Setting the stage for going digital

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- Basic concepts, vision, and mission remain the same for patient care.
- Whatever worked on paper should have a digital counterpart.
- Be aware of work flow changes to maximize digital technology.
- Modify job descriptions with new changes
- A "chartless" office is NOT "paperless!

Setting the stage for going digital

- Look for grant opportunities to fund the upgrade to digital
  - Be creative in your thinking process
  - Know your costs up front and itemize your needs to see what your grant will need to cover.
- With computerization, you become more efficient in operation but more time is required to convert paper documents to digital via scanning.

Setting the stage for going digital

- Establishing your budget:
  - Capital Improvements (Architect, Plumbing, Electric, Carpentry, HVAC)
  - Office furniture for staff and patients
  - Large Equipment Needs (Dental & IT)
  - Small Equipment Needs (Dental & IT)
  - Dental Supplies
  - Extra Personnel

Setting the stage for going digital

- Coordinate all the players with periodic meetings where everyone involved is present
- Make sure everyone is openly communicating with each other, especially when expanding outside home base.
- It's your canvas upon which to create!

Some excellent resources….

- Dr. Harry Demaree; THE Design http://www.thedesign.com/about/harry.php
- Dr. Michael Unthank; Dentist & Architect http://www.unthank.com/main.html
- Dr. Larry Emmott; http://www.drlarryemmott.com/
  - "Emmott on Technology," Dental Products Report
- Dr. Barry Freydberg; http://www.hitech2thdoc.com/
- Dr. Dale Miles; http://www.learndigital.net/

Dr. Harry Demaree; THE Design http://www.thedesign.com/about/harry.php

Dr. Michael Unthank; Dentist & Architect http://www.unthank.com/main.html

More ways to learn….

- CHC Online Dental Tools:
  - **Safety Net Dental Clinic Manual**
    - http://www.dentalclinicmanual.com/
  - **Mobile-Portable Dental Clinic Manual**
    - http://www.mobile-portabledentalmanual.com/
  - **National Network for Oral Health Access**
    - http://www.nnoha.org/
  - **Dental Management Coalition**
    - http://www.dentalmanagementcoalition.org

Planning for a "chartless" office

- Work closely with the Information Technology group in your organization and realistically plan your expansion budget
  - Consider your needs and # of connections for:
    - Telephone Communication
    - Computer Networking within your location as well as outside your location
    - Computer Servers for your electronic dental record as well as image management
  - Plan for IT staff to meet with the electrician.

Planning for a "chartless" office

- Work with a reputable company for custom dental cabinetry (example: ILS [Integrated Laminate Systems] www.ILSDental.com) or
- Consider going with a major manufacturer of dental cabinetry (examples: A-dec, http://www.a-dec.com/ or Pelton & Crane, http://www.pelton.net/).
- Plan far enough ahead by talking EARLY with your dental supplier/equipment specialists.

Planning for a "chartless" office

- Review your daily operations step-by-step from the moment staff walk in the door in the morning to when staff leave at night.
- Realize the paradigm shift in going digital and chartless will affect other areas of your CHC
  - Gradually removing the paper comprehensive chart will impact other services including:
    - Medical Records staff and how they pull charts
    - Other clinical services and how you share information

Planning for a "chartless" office

- Questions to consider for your office space:
  - How many computer stations will you need in total?
    - Business Area?
    - Reception Area?
    - Clinical Areas?
      - Dental Treatment Room
      - Dental Sterilization Lab/Room
      - Dental Radiograph Processing Room
      - Doctor's Offices
      - Director & Office Manager's Offices

Planning for a "chartless" office

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- More questions to think about:
  - What type of computers do I need to function?
    - Thin clients (virtual desktops) versus "fat" clients (CPUs)
  - How will our offices be networked?
    - Internally and externally?
  - Where will the servers be housed? Back up plan?
  - How will the distance between your sites affect the flow and speed of digital information?
  - How do you handle no electric, phone/cable/fiber?

Planning for a "chartless" office

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- Questions to consider for the treatment room:
  - Where will I place my computers in the dental operatories? Behind? Front? Side? Of patient?
  - Do I need new cabinets or do I have space for a computer cart?
  - Where should I place the keyboard, mouse, and monitor for best viewing by staff and patient?
  - Are wireless peripherals better than cables?
  - How can I protect my computer from water spray?

Planning for a "chartless" office

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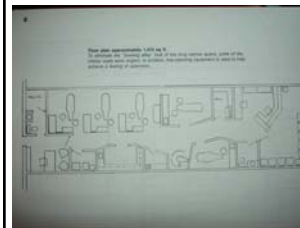
- Look at your C/MHC's practice management system and see if/how your Electronic Dental Record software will integrate.
  - Will you need to enter demographic information twice or can the practice management system send/receive information to the EDR?
  - Will we ever have a truly comprehensive electronic health record (EHR) that will share needed information (such as prescription histories) between services yet maintain separate areas for clinical specialties?

The HRHC Dental Network

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- All patients are registered first in Medical Manager as usual, with verification of insurance, address, and phone number.
- A server is a big computer which contains large amounts of information to which other local computers (thin/fat clients) are linked. Our large EDR servers are now located in Beacon.
- All sites are connected to the servers in Beacon via T-1 lines.
- The various sites are connected to the EDR servers through a Virtual Private Network (VPN) of Citrix servers.
- The Medical Manager server is connected to the Dentrix Enterprise servers via a special connection called an HL-7 Interface.

Planning for a "chartless" office

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- Once demographic information (patient name, date of birth, address, phone number, health insurance coverage) has been entered, it is automatically and electronically transferred from Medical Manager over to Dentrix Enterprise in a matter of seconds.
- The Patient Representative does NOT have to enter the information twice (that is, once in Medical Manager and once in Dentrix).

Why should we get it right?

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- Correct contact information is critical when relaying test results and calling the patient for follow-up after invasive procedures are done.
- Correct demographic information allows us to only submit for billing once and not have to redo our submissions (for example, to Medicaid, Child Health Plus, etc.) so we can get paid promptly.
- Garbage In, Garbage Out…..

Never treat a stranger…..

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- The more accurate information we record about our patients, the better we can take care of their needs, during and after their visits.
- Storing all of our dental information about our patients in one place will allow easier access to the components of their record (x-rays, progress notes, etc.)

Planning for a "chartless" office

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- Digital Radiography
  - Evaluate the advantages and disadvantages of digital radiograph processing (digital x-rays) BEFORE becoming "chartless".
    - ADVANTAGES:
      - No more chemicals, waste disposal, film storage/processing "darkroom", equipment maintenance.
      - Opportunity to lay down the hardware infrastructure in preparation for adding the EDR in the future
      - Less expensive up front than starting out with an EDR
      - Great way to educate the patient with large x-ray images
      - Easier way for dentists to consult from remote locations.

Planning for a "chartless" office

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- Digital Radiography
  - DISADVANTAGES:
    - Difficult to "retrofit" (transfer) previous digital images into integrated EDR image software even though DICOM compliant; thus, need to maintain former database of images.
    - Doing Digital Radiography first requires:
      - an additional local server at each site to store/retrieve digital radiographs within a database, or
      - a central server to store all patients from all sites.
- YOU choose which digital system best suits the needs of your office….Sensors vs. Plates

Planning for a "chartless" office

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- DECIDE WHAT YOU CAN DO BASED ON WHAT YOU CAN AFFORD….
  - Consider your options:
    - I. Full Implementation of an Electronic Dental Record
    - II. Partial Implementation of an EDR
    - III. Full implementation of Digital Radiography
    - IV. Partial Implementation of Digital Radiography
- My advice, whatever you can afford, put it in place FULLY in at least one site.

GOING "LIVE!"

- After signing on the dotted line for either digital radiography or an EDR….
  - Establish date(s) for 'hands-on' training
    - Administrators and Clinical Leaders
    - All Staff
  - Establish date(s) for implementation
    - Phasing in one site at a time is much less stressful than going live simultaneously at multiple sites.
    - Reduce schedule loads during the initial weeks.

GOING "LIVE!"

- Helpful hints:
  - Read over the software manuals in conjunction with setting up the system with the trainer.
  - Create "cheat sheets" to share with staff.
  - Let everyone know that we are all part of a learning curve and to expect improvement over time. Be helpful and forgiving.
  - Be receptive to suggestions from staff with new approaches and/or prior experience with the software.

GOING "LIVE!"

- Realize that it will take time to get used to processing patients with a new system.
- Treat staff to breakfast or lunch as you phase in the conversion over to an electronic record
- Come up with new ways to best audit records
- Only with 'hands on' use will you see what can be improved and what is better than before.

GOING "LIVE!"

- Explain to patients what is happening and apologize for the inherent delays bound to arise in the early phase.
- Patients are very impressed when they see their records on the computer.
- Ask for help from when needed.
- Nurture a "champion" for each site.
- Encourage staff….each little success will generate a smile

GOING "LIVE!"

- Look at how you schedule staff and change time allotments for support staff to:
  - Scan in necessary documents like consent forms
  - Review scheduled patients before the day starts
  - Verify progress notes and entries have been completed at the end of the day.
- Share with staff how:
  - Report writing and data tracking are easier
  - Peer review is monitored and evaluated

GOING "LIVE!"

- TROUBLESHOOTING….
  - Come up with plans on how the office will function when:
    - There is no electricity at your site
    - The main server crashes or goes down
    - When the high speed connections fail
    - When key staff or "champions" are out
  - What do you do now that the record is electronic and for any of these reasons is inaccessible?
  - Planning in advance creates less stress later!

GOING "LIVE!"

- Finally, an EDR should not detract from the quality or quantity of time you have with your patients.
  - Nothing can truly replace the human interaction between doctor and patient.
- Think of an Electronic Dental Record as a new and better tool for storing patient information to help you do a better job of what you do best; providing care.

In retrospect….

- 10 years ago we received a grant that allowed us to purchase 5 laptops and join the computer generation.
- Key staff were trained on how to use Windows 95 and Microsoft Office.
- Today we are totally integrated using an electronic dental record at multiple sites with multiple servers and a large database.

Thank you!

- ANY QUESTIONS?

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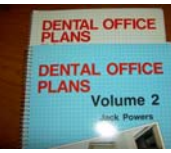
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