

## Course #2 Blue Team-Optimizing your Billing System to Improve Collections

Milwaukee County, WI

Thursday, November 11, 2010

### AIM-Increase collections by xx%

Pre-work

1. Review the Billing Guide (complete page 7)-<http://www.niatx.net/Action/promisingpractices.aspx>
2. Complete page 7 of the Billing Guide and bring with you to the kickoff
3. Review the project form and instructions-<http://www.niatx.net/content/contentpage.aspx?NID=43>
4. Come prepared to discuss your collections rate and primary reason for denials (this can come from the information you used to complete the survey monkey back in October)

Time	Title	Presenter
8:30 – 9:00	Registration	Convener
9:00 - 9:30	Welcome and Simulation Exercise	Janet, David, Todd, Amy, Walter
9:30 – 10:15	Leadership Vision for this project Why NIATx? Why Now? Standing Laws & Policy State & Federal Allocation <ul style="list-style-type: none"> <li>• Medicaid</li> <li>• Medicare</li> </ul> Third Party Billing Where to go to keep up to date on health care reform.	Todd kicks off the discussion – discusses all three tracks <a href="#">*Leadership Vision ppt/handout here</a>  Janet or designee addresses Medicaid/Medicare – ARO rep. – Dawn/Denise, 10-10:15a  <a href="#">*Billing guide documents here</a> David addresses Third Party Private (Billing Guide) Todd provides info on resources
10:15 - 10:30	Video of Pam Hyde/Kathleen Sebelius	
10:30 – 10:50	Break	
10:50 – 11:50	Patient Flow -Breakdown of bottle necks and barriers -Hand offs -Is the right decision maker doing the right steps? -Why do claims get denied?	Todd <a href="#">*Patient flow ppt/handout here</a> <a href="#">*Establishing A Billing System slides or ppt/handout here</a> <a href="#">*Dashboard document here</a> Gervean slides Gervean’s dashboard
11:50 – 12:40	Lunch	
12:40 – 1:30	PI 101	<a href="#">*Improving Client Engagement slides or ppt/handout here</a> Todd/David (Vignette on Contracts)
1:30 – 2:15	IT - Maximizing system capability	<a href="#">*IT/HIPPA slides/ppt/handouts here</a> Todd/David
2:15 – 2:30	Break	
2:30 – 3:15	Project Implementation -Who does what? -Dedicated Staff -Change Leader -Project Charters -Staffing	Janet/David
3:15 – 4:00	Breakout Design/Change Project Charter	All
4:00-4:30 P	Debrief, Check-Out, Next Steps	All





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# Establishing a Billing System

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## Session Overview

- *Overview of the Billing & Collections Process*
- *Getting Started*
- *Developing a Fee Schedule*
- *Elements of a Well-Defined Billing and Collections Process*
- *Alternative Billing Arrangements*
- *Operations Tips*



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# The Billing Process

## The Basics >>>>

- Collect Patient Information.
- Generate bill.
- Monitor submission.
- Monitor denials.
- Receive and post payments.



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# The Billing Process

- Billing starts with your first interaction with a patient and ends when all possible payments have been posted and any balance has been written off. Almost every staff member plays a critical role here.



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## The Billing Process

- Patient Base
- Service/Patient Volume
- Services Offered
- Adjust Your Operations if Needed



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## The Billing Process

- Common Billing Forms  
Collecting appropriate third-party payments depend on accurate completion and timely submission of billing forms.



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## The Billing Process

- Common Forms
  - CMS 1500 is the standard form used to bill third-party payers for professional services
  - CMS 1450 (UB-04) is the billing form used for hospital based outpatient care and by health centers



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## The Collections Process

- Receive and Post Payments.
- Bill Secondary Payer.
- Bill Patients.



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## The Collections Process

- Analyze Denials
- Resubmit Corrected Bills
- Bad Debts
- Review Remittance Advice (RA)
- Tracking encounters
- Effective information technology
- Rejected bills



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## Getting Started

- Have a written development plan.
- Determine your state requirements.
- Develop an operating and capital budget.
- Determine appropriate staffing.
- Obtain insurance coverage (e.g., general liability).



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## Getting Started

- Develop billing & collection policies and procedures
  - Items to include
    - Job descriptions
    - Training guidelines
    - IT safeguards
    - Revision/Update procedures



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## Developing a Fee Schedule

- Fee Schedule should:
  - Cover the costs and ensure financial viability
  - Remain Competitive
  - Receive appropriate reimbursement from third-party payers



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## Elements of a Well Defined Billing & Collection Process

- Encompass every organizational function that impacts the revenue cycle
- Solicit staff input, before & after implementation
- Develop/modify job descriptions of all affected staff
- Benchmark historical performance and set targets
- Training, Training, Training



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## Alternative Billing Arrangements

- Collaboration with a complimentary organization
- Outsourcing with an effective billing and collections vendor



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## Operations Tips

- Appointment Scheduling
  - Determine if a referral or authorization is required before scheduling a visit.
  - Inform patients that co-pays are due at time of service.
  - Contact patients prior to the scheduled visit.



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## Operations Tips

- Registration:
  - Have patients sign in upon arrival.
  - Check patient identification.
  - Check patient account for old balances.
  - Monitor waiting room activities.
  - Reconcile encounter forms with sign in sheet, charges entered, and collected cash.



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## Questions?

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## Increasing Revenue Options by Billing Third Party Payors

One Provider's Experience



David Moore, MPA

“Before I speak, I have  
something important to say.”

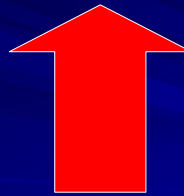
Groucho Marx

### Background on Fayette

- Fayette Companies/Human Service Center is located in Peoria, IL.
- Majority of revenues come from state contracts.
- Have been contracting with third party private payers over 20 years.
- Have both outpatient (group contracting) as well as inpatient (facilities contracting) services.

Increase in Denials

Decrease in Collections



### What a “Walk-Through” Revealed

- The way we addressed contracts & credentialing had become fragmented and decentralized.
- Front door process for checking benefits was hit or miss at best.
- Little to no communication existed between staff responsible for benefits checks/pre-authorizations and billing/collections.



### System of Ownership and Responsibility

Contracts & Credentialing	Benefits, Pre-Certs, Re-Auth	Billing	Collections & Denials
Person's Responsible	Person's Responsible	Person's Responsible	Person's Responsible
Goals	Goals	Goals	Goals
Metric:	Metric:	Metric:	Metric:
Baseline:	Baseline:	Baseline:	Baseline:
Benchmarks:	Benchmarks:	Benchmarks:	Benchmarks:

## Thinking Differently

- Changing the way we view financial documentation at the front door.
- Had to look very closely at our “Fee Policy”.
- Recognizing Ins. Company/MCO/EAP as a part of the treatment team.
- Recognizing that establishing medical necessity is much easier if we do a more thorough job of reviewing the case.

## Results and Next Steps

- Modest decrease in denials and increase in collections seen from first six months to second six months of FY10.
- Have begun to recognize significant gains in revenue from appealing denials.
- Have added MCO contracts and gotten more staff credentialed with existing contracts.
- We have a long way to go!!



## Front Door Vignette

- Billing staff report that an increasing number of claims are being denied due to client's lack of benefit.
- Front door staff report that many client's do not have ins. Info with them at the time of admission.
- What is the Aim and potential PDSA's?

## Difficulty with Obtaining Additional Days of TX Vignette

- Individual responsible to obtain re-authorizations reports difficulty in obtaining additional days.
- Walk-through reveals multiple problems – what are some of those problems and what is a potential Aim and PDSA's?

Dashboard

Clinic <Enter Clinic Name>  
Year <Enter Year>

**Financial Indicators**

<Enter Year>	<u>Baseline Data</u>	<u>Target Goal</u>
<b>Financial Indicators</b>		
Denials as % of Total Billed	0.00%	0.00%
% of Collections of Net Revenue	0.00%	0.00%
% of Accounts Receivable Greater than 90 days	0.00%	0.00%
Days In AR	0.00	0.00
Current Ratio	0.00	0.00
Days Cash on Hand	0.00	0.00
Cost Per Unit of Service	\$0.00	\$0.00
Admin Exp as % of Total Exp	0.00%	0.00%

**Definitions/Formulas**

Total Number of Denied Claims/Total Number of Claims Submitted  
Total Cash Collected/Total Net Revenue  
Total Accounts Receivables over 90 days/ Total Accounts Receivables  
(Gross Accounts Receivables less allowance for doubtful accounts and contractals)  
((Revenue lest contractals and bad debt)/365)  
Current Ratio (current assets/current liabilities)  
Days Cash on Hand (Cash and Cash equivalents)/((total expenses less depreciation)/365)  
Cost Per Unit of Service (Total cost/total units of service)  
Admin Exp as % of Total Exp (Admin expense/total expense)



## IT Basics – what is EDI?

- EDI (Electronic Data Interchange) is a standard format for exchanging business data. The standard is ANSI X12 and it was developed by the Data Interchange Standards Association.
- ANSI X12 is either closely coordinated with or is being merged with an international standard, EDIFACT. An EDI message contains a string of *data elements*, each of which represents a singular fact, such as a price, product model number, and so forth, separated by delimiter. The entire string is called a *data segment*. One or more data segments framed by a header and trailer form a *transaction set*, which is the EDI unit of transmission (equivalent to a *message*).
- A transaction set often consists of what would usually be contained in a typical business document or form.
- The parties who exchange EDI transmissions are referred to as *trading partners*.

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## IT Basics – what is EDI?

- EDI transactions will significantly reduce administrative and operating costs, gain efficiency in processing time and improve data quality.
- Under HIPAA, as EDI transactions gradually replace paper-based transactions, the risk of losing documents, encountering delays, and paper chasing is minimized. Trading Partners benefit immensely using EDI as it involves little if any human touch in highly routine process.
- EDI supports
  - 837 Health Care Claims
  - 835 Payment Advice
  - 270/271 Health Care Benefit Inquiry and Response
  - 276/277 Claim Status Request and Response
  - 278 Health Care Services Request for Review
- Two basic methods are available to generate EDI claims transactions:
  - Direct Submission by Provider
  - Submission by Clearinghouse or Billing Service

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## IT Basics – Choosing a Clearinghouse

**What is a clearinghouse and what does it have to do with medical billing?**

- A clearinghouse is responsible for ensuring the accuracy of your billing.
- It is responsible for reformatting your data to a format that is acceptable to the various insurance carriers. Namely, programs such as Medicaid, Medicare, Blue Cross, and a host of others require their medical billing records to be in a certain format such as the EDI standard format.

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## IT Basics – what is HIPAA?

- The **Health Insurance Portability and Accountability Act (HIPAA) of 1996 (P.L.104-191) [HIPAA]** was enacted by the U.S. Congress in 1996.
- According to the Centers for Medicare and Medicaid Services (CMS) website, Title I of HIPAA protects health insurance coverage for workers and their families when they change or lose their jobs. Title II of HIPAA, known as the Administrative Simplification (AS) provisions, requires the establishment of national standards for electronic health care transactions and national identifiers for providers, health insurance plans, and employers.

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## IT Basics – what is HIPAA?

- While electronic records and mobile computing are enhancing patient care, carrying unencrypted protected health information (PHI) can place your organization at significant risk. State data breach notification laws and federal HITECH rules require notification in the event of loss or theft of data.
- HITECH, organizations can now be fined up to \$1.5 million per incident.
- To meet data protection and safe harbor requirements, healthcare data must be encrypted and its protection reported.
- Enforcing policies, auditing device usage, and the ability to remotely wipe data are the differences between having to report a breach or not.

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## IT Basics – What is an EMR?

- Typically, the “EMR” (electronic medical record) portion of the EHR is the clinical portion of the patient’s data and can include:
  - Progress notes
  - Problem list
  - Patient Allergies
  - Patient Risk factors
  - Medications and medication history
  - Chief complaint
  - Vital signs
  - Past medical history
  - Immunizations
  - Laboratory data
  - Radiology reports
  - Flow sheets (e.g. growth charts)



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## IT Basics – what is a PM?

- Typically, the “PM” or practice management portion of the EHR is the administrative portion of the patient’s data and can include:
  - Patient Registration (e.g. demographics and insurance coverage information)
  - Appointment Scheduling and Case-Load Mgmt
  - Eligibility Verification/Management
  - Service Capture (online super bill or charge ticket)
  - Billing and Accounts Receivable
  - Contact Tracking /Communication Logs (e.g. document patient follow-up attempts)
  - Document storage (e.g. copies of ID card, forms, etc.)



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## IT - Purchase of a System or Procurement

- There are no right or wrong answers...it is dependent on your preference.
- It is important to note that there are inherent limitations to both types of systems



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## IT - Purchase of a System or Procurement

- There are specific things that you will need in order to perform your daily functions efficiently.
- The most important consideration should be in choosing the right IT system to meet the demands of your clientele base.
- Research whether or not you prefer to purchase an actual software program or use a web-based internet program.



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## IT - Purchase of a System or Procurement

### Examples of Limitations to Medical Billing Systems:

- If you purchase a license to use a medical billing software system from a larger vendor, you should understand that you do not own the program.
- These companies are only allowing you access to their program, which is strategically designed to process medical billing claims effectively.



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## IIT - Purchase of a System or Procurement

- On the plus side, there are smaller vendors you can find who will sell you the actual medical billing software system
- As with any purchase, make sure an ample amount of research is conducted before buying.



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## IT - Purchase of a Software System

### Internet-Based Medical Billing Software:

- A limitation to internet medical billing programs is that you will not have control over your own back-up data.
- If you decide to cancel your internet billing service, you will not be entitled to keep your own medical billing records.
- Most importantly, you have to pay a monthly fee to utilize this service, as opposed to paying one total cost to buy the actual software program itself.



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## Ready to Buy?

- More than 6/10 implementations fail
- Adoption and implementation take time – more than a year and there is no rushing the process
- Do not automate poor processes and workflow. Fix them first
- Find systems that suit you as precisely as possible. Do not try to twist your business and clinical operations around software. Identifying "cool" vendors is nowhere near the top of the to-do list...that comes later
- Understand that Total Cost of Ownership involves hardware, software, networking, consultants, staff time, training, implementation involving disruptions to work in progress (billable time)
- Interoperability, standards, certification, and compliance are essential



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## Learn From Others

- Productivity will be impacted by as much as 50% during the first few months following implementation; some practices never return to 100% of original pre-EHR levels
- Don't assume that implementation of the EHR will lead to immediate usage and adoption. Have a process to ensure all staff, not just the physicians, are not "backsliding" to the old paper chart.
- Keep changes to a minimum for the first 3 to 6 months. Focus users on giving the process a chance rather than making ad hoc changes to appease staff
- Conduct staff assessment, consider training tiers. Consider computer 101 training for staff that have never used a computer before.
- Onsite, post implementation training is as important if not more important than intensive upfront training



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## Learn from Others

- Have a plan for your paper charts. Are you going to scan them into your new EHR, or will you abstract key data or patient synopsis information.
- Some groups use the chart abstraction process as an opportunity to train the clinicians – while abstracting data, the clinician is also becoming more familiar with the EHR
- Paper charts should be "retired" after no more than three patient visits. Retaining paper charts onsite indefinitely impedes your ability to implement a truly paperless environment and enables backsliding for those who prefer using the paper chart vs. the EHR
- Don't go overboard when designing your clinical templates. It is very easy to get caught up in the powerful data collection and documenting capabilities an EHR has to offer. Too many fields, drop list choices, and forms to complete result in a cumbersome system that will impede patient throughput.
- Similarly, pop-up messages and reminders can be overwhelming if too many are setup. Consider setting reminders for key items or events only; or important items that are regularly overlooked or missed.



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## IT – Maximizing System Capabilities

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## IT Maximizing System Capability- Efficiency


- Technology is being used to address the ever increasing complexities in billing, payment and collections
- Technology is automating many of the manual processes
- Technology is helping both providers and payers by proactively identifying potential errors or mistakes and avoiding them



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## IT - Maximizing System Capability - Efficiency


- Technology is simultaneously reducing the need for paper and time spent looking for missing charts, lost claims, etc.
- Technology is reducing payment and transaction turnaround times



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## IT - Maximizing System Capability – Quality


- Software solutions are designed to improve the quality of care through the use of care management protocols, identification of potential drug-drug/drug-allergy interactions, identification of or reminders for services that the patient needs to receive at the point of care, etc.
- Electronic charts such as those found in EMRs provide ready access to patient data without the need to leaf through lengthy charts or decipher handwriting.
- Improved patient compliance is achieved through automated appointment reminders, recall of patients with missed appointments, specific conditions, etc.



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## IT - Maximizing System Capability - Quality


- Governmental requirements around interoperability (HIE) will allow organizations to share clinical data electronically, improving continuity of patient care
- Evidenced based medicine will provide clinicians with access to knowledge bases that identify various courses of treatment and the expected outcome for each treatment



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## IT - Maximizing System Capability - Reporting

- Reporting of clinical data will be a key component in the transformation of healthcare. Reporting will lead to:
  - Consumerism in healthcare – unlike most purchases made (e.g. buying an automobile), patients have way of understanding the cost of care or how to evaluate the value and quality of the care they receive. Availability of data is quickly changing this dynamic
  - Transparency – data will allow clinicians, insurers, employers and patients to compare clinical outcomes, morbidity rates, etc., of one practice or care center to another
  - Greater accountability – with transparency, we will see greater accountability as comparative data begins to illustrate aberrant variations in care provided




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## Summary – Maximizing IT

- Reengineer business processes
- Automate
- Assure quality, accuracy, reliability and timeliness
- Reduce cycle time and improve cash flow
- Add functionality and enhance productivity
- Achieve Interoperability
- Share knowledge
- Data analysis, reporting and business intelligence
- Achieve Meaningful Use





**Business Practices for the Future**  
*The NIATx Way*

Todd Molfenter  
NIATx

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Addiction


# The World is Changing




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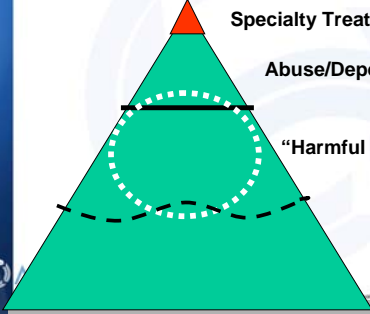
## Business Practices for the Future Project

- SAMHSA Supported
- 6 Full Collaboratives of Conveners
- 19 Peer Collaboratives
- 250 participating organizations



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## Substance Abuse





Specialty Treatment ~ 2,300,000

Abuse/Dependent – 25,000,000

“Harmful Users” – ??,000,000

Little or No Use



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## Our Opportunity

- 20 million and waiting
- Public support
- Knowledge
- Coverage




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## Our Challenge




MODEST PROPOSALS

### Rethinking the phone booth

Superman is going to have to find somewhere else to change because, let's face it, the phone booth's days are numbered. Given that mobile phones are almost ubiquitous, we need to reconceive that venerable piece of street furniture. TIME asked five young designers from different disciplines around the globe to imagine what, in a wireless world, the public phone booth might become.



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## Our Rotary Phone

- **Program to Treatment**
  - One size for all
  - Right treatment at right time for each
- **Belief to Science**
  - Experience and tradition
  - Peer reviewed, controlled studies
- **Human Service to Health**
  - Social supports and change
  - Restoration to well being
- **Grant to reimbursement**
  - Charity
  - Earned income

## Grant to Submission

Three Major Areas of Change:

- Need for Billing
- Cash Flow Management
- Securing Managed Care Contracts



Year

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Year

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- What was the customer demand that changed the product?
- What did each cost at time of production?
- What came in between?
- Did federal policy dictate or contribute to changes?

**1876**

cost: \$20 = ~\$413.00 in 2009



**1958**



**2007**

~\$199 for an 8G



1876: Alexander Graham Bell invents the telephone

1881: First Telephone Yellow Pages Directory

1887: First coin-operated telephone installed in the Hartford Bank by the payphone's inventor William Gray

1891: First dial phone. 512,000 phone in the U.S.

1915: First "official" coast-to-coast call is made from Alexander Graham Bell in New York City to Thomas Watson in San Francisco

1928: Herbert Hoover becomes first president of the United States with a phone on his desk. Until this time, the President talked on a phone from a booth outside his executive office.

1957: Field tests for the first pages begin in Allentown and Bethlehem, PA

1958: Princess Phone introduced. First phone with a lighted dial, became a part of American pop culture.

1960: The first Touch-Tone telephones are test-marketed in Findlay, OH. These telephones had 10 buttons, rather than the 12 buttons of today.

1963: Hotline link established between White House and Kremlin following the Cuban missile crisis

1968: 911 chosen as the nationwide emergency number. The nation's telephone companies agree to make this three-digit sequence unavailable as an exchange number

1972: First e-mail message. The term "Internet" is used for the first time two years later, but the concept of the Internet as we know it today didn't evolve until later

1984: First Cellular phones

1990: The World Wide Web is born, marking the beginning of the Internet as we know it today. Most Americans get Internet connections through their phone lines

1991: Caller ID introduced. Controversial at the time. Caller ID has become America's most popular add-on feature

2000: "Thin Phone" which integrates wireless Internet access with local wireless phone service – becomes widely available. Lets customers stay connected with everything from Web pages to voice and e-mail-all while on the move.





\_\_\_\_\_

Year



\_\_\_\_\_

Year

- What was the customer demand that changed the product?
- What did each cost at time of production?
- What came in between?
- Did federal policy dictate or contribute to changes?



**1891**

Cost: \$150 = ~\$3650 in 2009  
by 1899 cost had dropped to \$20 = ~\$534 in 2009



**1983**

Cost: w/o radio \$100 = ~ \$215 in 2009  
Cost: w/ radio \$120 = ~258 in 2009



**2001**

Cost: \$400  
=~\$485 in 2009



- 1877** Thomas Alva Edison, working in his lab, succeeds in recovering Mary's Little Lamb from a strip of tinfoil wrapped around a spinning cylinder.
- 1878** The first music is put on record: cornetist Jules Levy plays "Yankee Doodle."
- 1887** Emile Berliner is granted a patent on a flat-disc gramophone, making the production of multiple copies practical.
- 1891** Price for a phonograph \$150 = ~\$3650 in 2009
- 1899** Price for a phonograph \$20 = ~\$534 in 2009
- 1925** The first electrically recorded 78 rpm disks appear.
- 1927** "The Jazz Singer" is released as the first commercial talking picture, using Vitaphone sound on disks synchronized with film
- 1935** BASF prepares the first plastic-based magnetic tapes.
- 1940** Walt Disney's "Fantasia" is released, with eight-track stereophonic sound.
- 1948** The microgroove 33-1/3 rpm long-play vinyl record (LP) is introduced by Columbia Records.
- 1949** RCA introduces the microgroove 45 rpm, large-hole, 7-inch record and record changer/adaptor
- 1955** Ampex develops "Sel-Sync" (Selective Synchronous Recording), making audio overdubbing practical.
- 1956** Les Paul makes the first 8-track recordings using the "Sel-Sync" method.
- 1975** Digital tape recording begins to take hold in professional audio studios.
- 1980** Sony introduces a palm-sized stereo cassette tape player called a "Walkman."
- 1982** Sony releases the first CD player, the Model CDP-101.
- 2001** Apple releases the original iPod costing \$400



\_\_\_\_\_ Year



\_\_\_\_\_ Year

- What was the customer demand that changed the product?
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**1887**



**1879**



**2009**

Cost: \$14.99



If we define the stapler as a machine for fastening papers together, then the earliest recorded account of a stapler comes from 18th century France.

The first magazine-fed, loose-wire stapler was invented in 1877 by Daniel M. Somers of New York, NY. Before this device, staplers had to be reloaded with a single staple after every use. Somers's device used a magazine that was loaded with loose staples. After one staple was used, another was automatically advanced into place by a spring.



Year



Year

- What was the customer demand that changed the product?
- What did each cost at time of production?
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16500BCE

The earliest known maps are of the sky, not the earth



2009

cost: ~\$150-800



- 1938** Between 1938-1940, I.I. Rabi invents molecular-beam magnetic resonance at Columbia University in 1938. He and his colleagues apply magnetic resonance to fundamental studies of atoms and molecules. Possibility of atomic clock to measure gravitational red shift is discussed. Rabi is awarded the Nobel Prize for this work in 1944.
- 1949** Norman Ramsey invents separated-oscillatory-field resonance method at Harvard University, for which he was awarded the Nobel Prize in 1989. Jerrold Zacharias proposes using Ramsey's method to create cesium-beam "fountain" clock that would be accurate enough to measure gravitational red shift.
- 1954** Charles Townes at Columbia University demonstrates operation of the first maser based on emission of radiation from ammonia molecules. Townes shared the 1964 Nobel Prize in physics.
- 1954** Between 1954-1956, Zacharias and National Company develop the first self-contained portable atomic clock, the Atomichron.
- 1957** Sputnik is launched in October by the Soviet Union. Satellite Doppler tracking is inaugurated at MIT Lincoln Laboratory and Johns Hopkins Applied Physics Laboratory (APL). Navy Transit program is started at APL in December.
- 1960** Ramsey and students Kleppner and Goldenberg operate hydrogen maser at Harvard University.
- 1960** Between 1960-1965, rubidium optically pumped clock is introduced. Cesium frequency standards are installed in most international time-standard laboratories.
- 1964** Between 1964-1965, first position fix from a Transit satellite is computed aboard Polaris submarine.
- 1967** Transit system is made available to civilian community.
- 1968** Standards of a Defense Navigation Satellite System are defined.
- 1974** First GPS test satellite, from Timation program, is launched to test rubidium clocks and time-dissemination techniques.
- 1977** Test satellite incorporating principal features of later GPS satellites, including first cesium clocks in space, is launched.
- 1978** Between 1978-1985, ten prototype GPS satellites are launched, built by Rockwell International.
- 1989** Between 1989-1993, series of 24 satellites are launched at about 6 per year.
- 1993** Final GPS satellite is launched on June 26, 1993.
- 1996** White House announces that a higher level GPS accuracy will be available to everyone.



Year

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Year

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- What was the customer demand that changed the product?
- What did each cost at time of production?
- What came in between?
- Did federal policy dictate or contribute to changes?



**Ancient times:** Camera obscuras used to form images on walls in darkened rooms; image formation via a pinhole

**16th century:** Brightness and clarity of camera obscuras improved by enlarging the hole inserting a telescope lens

**17th century:** Camera obscuras in frequent use by artists and made portable in the form of sedan chairs

**1816:** Nicéphore Niépce combines the camera obscura with photosensitive paper

**1826:** Niépce creates a permanent image

**1861-65:** [Mathew Brady](#) and staff (mostly staff) covers the American Civil War, exposing 7000 negatives

**1888:** First Kodak camera, containing a 20-foot roll of paper, enough for 100 2.5-inch diameter circular pictures.

**1889:** Improved Kodak camera with roll of film instead of paper

**1900:** Kodak Brownie box roll-film camera introduced.

**1906:** Availability of panchromatic black and white film and therefore high quality color separation color photography.

**1907:** First commercial color film, the Autochrome plates, manufactured by Lumiere brothers in France

**1917:** Nippon Kogaku K.K., which will eventually become Nikon, established in Tokyo.

**1924:** Leitz markets a derivative of Barnack's camera commercially as the "Leica", the first high quality 35mm camera.

**1934:** Fuji Photo Film founded. By 1938, Fuji is making cameras and lenses in addition to film.

**1936:** Development of Kodachrome, the first color multi-layered color film; development of Exakta, pioneering 35mm single-lens reflex (SLR) camera

**1948:** Hasselblad in Sweden offers its first medium-format SLR for commercial sale; Pentax in Japan introduces the automatic diaphragm; Polaroid sells instant black and white film

**1963:** First color instant film developed by Polaroid; Instamatic released by Kodak; first purpose-built underwater introduced, the Nikonos

**1987:** The popular Canon EOS system introduced, with new all-electronic lens mount

**1990:** Adobe Photoshop released.

**1991:** Kodak DCS-100, first digital SLR, a modified Nikon F3   **1992:** Kodak introduces PhotoCD

**2000:** Camera phone introduced in Japan by Sharp/J-Phone

**2001:** Polaroid goes bankrupt

**2003:** Four-Thirds standard for compact digital SLRs introduced with the Olympus E-1; Canon Digital Rebel introduced for less than \$1000

**2004:** Kodak ceases production of film cameras

**2005:** Canon EOS 5D, first consumer-priced full-frame digital SLR, with a 24x36mm CMOS sensor for \$3000





Year

Year

- What was the customer demand that changed the product?
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1971 – Umatic But the cost—[US\\$1,395](#) for a combination **TV/VCR**, or **\$7,069 in 2007 dollars**

1975 Betamax, which came with a 19" Trinitron TV, **cost \$2495 in 1975**. (\$9940 in 2009)

1976 JVC VHS, by 1985, you could buy a VHS recorder **for \$299 (\$596 in 2009)**

While VHS machines' lower retail price was a major factor, the principal battleground proved to be recording time.

The original Sony Betamax video recorder for the NTSC television system could only record for 60 minutes.

JVC's VHS could manage 120 minutes, followed by RCA's entrance into the market with a 240 minute recorder.

These challenges sparked a mini-war to see who could achieve the longest recording time.

RCA felt the recording time was too short, insisting that they needed at least a 4-hour recording time (reportedly because that was the length of an average televised U.S. football game).

By 1980, out of an estimated 100,000 homes with VCRs, 70% were rented, and the presence of three (the third being Video 2000) competing formats meant that renting was an even more attractive choice, since a small fortune (**about £2000 or \$3900 in today's prices**) could be spent on a system which may become obsolete. By the time Betamax machines became easier to rent, VHS had already claimed 70% of the market.

**1997** DVDs are launched

**1997:** NetFlix.com, Inc. is formed in California by Reed Hastings and Marc Randolph.

**1998:** The company begins offering DVD rentals and sales.

**1999:** Sales are halted; Group Arnault invests \$30 million in the firm and a subscription plan debuts.

**2000:** Revenue sharing deals are signed with Warner Brothers and Columbia film studios; CineMatch is introduced.

**2001:** A partnership with Best Buy gives Netflix exposure in the chain's 1,800 stores.

**2002:** The company goes public and changes its name to Netflix, Inc. **\$9.95/month for unlimited one-at-a-time rental**

**2003:** Subscribers top 1,000,000, and Netflix has its first profitable quarter.

## Increasing Revenue Options by Billing Third Party Payors

One Provider's Experience



David Moore, MPA

“Before I speak, I have  
something important to say.”

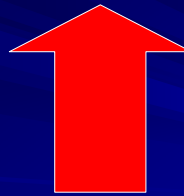
Groucho Marx

### Background on Fayette

- Fayette Companies/Human Service Center is located in Peoria, IL.
- Majority of revenues come from state contracts.
- Have been contracting with third party private payers over 20 years.
- Have both outpatient (group contracting) as well as inpatient (facilities contracting) services.

Increase in Denials

Decrease in Collections



### What a “Walk-Through” Revealed

- The way we addressed contracts & credentialing had become fragmented and decentralized.
- Front door process for checking benefits was hit or miss at best.
- Little to no communication existed between staff responsible for benefits checks/pre-authorizations and billing/collections.



### System of Ownership and Responsibility

Contracts & Credentialing	Benefits, Pre-Certs, Re-Auth	Billing	Collections & Denials
Person's Responsible	Person's Responsible	Person's Responsible	Person's Responsible
Goals	Goals	Goals	Goals
Metric:	Metric:	Metric:	Metric:
Baseline:	Baseline:	Baseline:	Baseline:
Benchmarks:	Benchmarks:	Benchmarks:	Benchmarks:

## Thinking Differently

- Changing the way we view financial documentation at the front door.
- Had to look very closely at our “Fee Policy”.
- Recognizing Ins. Company/MCO/EAP as a part of the treatment team.
- Recognizing that establishing medical necessity is much easier if we do a more thorough job of reviewing the case.

## Results and Next Steps

- Modest decrease in denials and increase in collections seen from first six months to second six months of FY10.
- Have begun to recognize significant gains in revenue from appealing denials.
- Have added MCO contracts and gotten more staff credentialed with existing contracts.
- We have a long way to go!!



## Front Door Vignette

- Billing staff report that an increasing number of claims are being denied due to client's lack of benefit.
- Front door staff report that many client's do not have ins. Info with them at the time of admission.
- What is the Aim and potential PDSA's?

## Difficulty with Obtaining Additional Days of TX Vignette

- Individual responsible to obtain re-authorizations reports difficulty in obtaining additional days.
- Walk-through reveals multiple problems – what are some of those problems and what is a potential Aim and PDSA's?

Dashboard

Clinic <Enter Clinic Name>  
Year <Enter Year>

**Financial Indicators**

<Enter Year>	<u>Baseline Data</u>	<u>Target Goal</u>
<b>Financial Indicators</b>		
Denials as % of Total Billed	0.00%	0.00%
% of Collections of Net Revenue	0.00%	0.00%
% of Accounts Receivable Greater than 90 days	0.00%	0.00%
Days In AR	0.00	0.00
Current Ratio	0.00	0.00
Days Cash on Hand	0.00	0.00
Cost Per Unit of Service	\$0.00	\$0.00
Admin Exp as % of Total Exp	0.00%	0.00%

**Definitions/Formulas**

Total Number of Denied Claims/Total Number of Claims Submitted  
Total Cash Collected/Total Net Revenue  
Total Accounts Receivables over 90 days/ Total Accounts Receivables  
(Gross Accounts Receivables less allowance for doubtful accounts and contractuels)  
((Revenue lest contractuels and bad debt)/365)  
Current Ratio (current assets/current liabilities)  
Days Cash on Hand (Cash and Cash equivalents)/((total expenses less depreciation)/365)  
Cost Per Unit of Service (Total cost/total units of service)  
Admin Exp as % of Total Exp (Admin expense/total expense)



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# Establishing a Billing System

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## Session Overview

- *Overview of the Billing & Collections Process*
- *Getting Started*
- *Developing a Fee Schedule*
- *Elements of a Well-Defined Billing and Collections Process*
- *Alternative Billing Arrangements*
- *Operations Tips*



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# The Billing Process

## The Basics >>>>

- Collect Patient Information.
- Generate bill.
- Monitor submission.
- Monitor denials.
- Receive and post payments.



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# The Billing Process

- Billing starts with your first interaction with a patient and ends when all possible payments have been posted and any balance has been written off. Almost every staff member plays a critical role here.



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## The Billing Process

- Patient Base
- Service/Patient Volume
- Services Offered
- Adjust Your Operations if Needed



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## The Billing Process

- Common Billing Forms  
Collecting appropriate third-party payments depend on accurate completion and timely submission of billing forms.



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## The Billing Process

- Common Forms
  - CMS 1500 is the standard form used to bill third-party payers for professional services
  - CMS 1450 (UB-04) is the billing form used for hospital based outpatient care and by health centers



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## The Collections Process

- Receive and Post Payments.
- Bill Secondary Payer.
- Bill Patients.



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## The Collections Process

- Analyze Denials
- Resubmit Corrected Bills
- Bad Debts
- Review Remittance Advice (RA)
- Tracking encounters
- Effective information technology
- Rejected bills



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## Getting Started

- Have a written development plan.
- Determine your state requirements.
- Develop an operating and capital budget.
- Determine appropriate staffing.
- Obtain insurance coverage (e.g., general liability).



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## Getting Started

- Develop billing & collection policies and procedures
  - Items to include
    - Job descriptions
    - Training guidelines
    - IT safeguards
    - Revision/Update procedures



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## Developing a Fee Schedule

- Fee Schedule should:
  - Cover the costs and ensure financial viability
  - Remain Competitive
  - Receive appropriate reimbursement from third-party payers



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## Elements of a Well Defined Billing & Collection Process

- Encompass every organizational function that impacts the revenue cycle
- Solicit staff input, before & after implementation
- Develop/modify job descriptions of all affected staff
- Benchmark historical performance and set targets
- Training, Training, Training



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## Alternative Billing Arrangements

- Collaboration with a complimentary organization
- Outsourcing with an effective billing and collections vendor



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## Operations Tips

- Appointment Scheduling
  - Determine if a referral or authorization is required before scheduling a visit.
  - Inform patients that co-pays are due at time of service.
  - Contact patients prior to the scheduled visit.



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## Operations Tips

- Registration:
  - Have patients sign in upon arrival.
  - Check patient identification.
  - Check patient account for old balances.
  - Monitor waiting room activities.
  - Reconcile encounter forms with sign in sheet, charges entered, and collected cash.



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## Questions?

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## IT Basics – what is EDI?

- EDI (Electronic Data Interchange) is a standard format for exchanging business data. The standard is ANSI X12 and it was developed by the Data Interchange Standards Association.
- ANSI X12 is either closely coordinated with or is being merged with an international standard, EDIFACT. An EDI message contains a string of *data elements*, each of which represents a singular fact, such as a price, product model number, and so forth, separated by delimiter. The entire string is called a *data segment*. One or more data segments framed by a header and trailer form a *transaction set*, which is the EDI unit of transmission (equivalent to a *message*).
- A transaction set often consists of what would usually be contained in a typical business document or form.
- The parties who exchange EDI transmissions are referred to as *trading partners*.

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## IT Basics – what is EDI?

- EDI transactions will significantly reduce administrative and operating costs, gain efficiency in processing time and improve data quality.
- Under HIPAA, as EDI transactions gradually replace paper-based transactions, the risk of losing documents, encountering delays, and paper chasing is minimized. Trading Partners benefit immensely using EDI as it involves little if any human touch in highly routine process.
- EDI supports
  - 837 Health Care Claims
  - 835 Payment Advice
  - 270/271 Health Care Benefit Inquiry and Response
  - 276/277 Claim Status Request and Response
  - 278 Health Care Services Request for Review
- Two basic methods are available to generate EDI claims transactions:
  - Direct Submission by Provider
  - Submission by Clearinghouse or Billing Service

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## IT Basics – Choosing a Clearinghouse

**What is a clearinghouse and what does it have to do with medical billing?**

- A clearinghouse is responsible for ensuring the accuracy of your billing.
- It is responsible for reformatting your data to a format that is acceptable to the various insurance carriers. Namely, programs such as Medicaid, Medicare, Blue Cross, and a host of others require their medical billing records to be in a certain format such as the EDI standard format.

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## IT Basics – what is HIPAA?

- The **Health Insurance Portability and Accountability Act (HIPAA) of 1996 (P.L.104-191) [HIPAA]** was enacted by the U.S. Congress in 1996.
- According to the Centers for Medicare and Medicaid Services (CMS) website, Title I of HIPAA protects health insurance coverage for workers and their families when they change or lose their jobs. Title II of HIPAA, known as the Administrative Simplification (AS) provisions, requires the establishment of national standards for electronic health care transactions and national identifiers for providers, health insurance plans, and employers.

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## IT Basics – what is HIPAA?

- While electronic records and mobile computing are enhancing patient care, carrying unencrypted protected health information (PHI) can place your organization at significant risk. State data breach notification laws and federal HITECH rules require notification in the event of loss or theft of data.
- HITECH, organizations can now be fined up to \$1.5 million per incident.
- To meet data protection and safe harbor requirements, healthcare data must be encrypted and its protection reported.
- Enforcing policies, auditing device usage, and the ability to remotely wipe data are the differences between having to report a breach or not.

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## IT Basics – What is an EMR?

- Typically, the “EMR” (electronic medical record) portion of the EHR is the clinical portion of the patient’s data and can include:
  - Progress notes
  - Problem list
  - Patient Allergies
  - Patient Risk factors
  - Medications and medication history
  - Chief complaint
  - Vital signs
  - Past medical history
  - Immunizations
  - Laboratory data
  - Radiology reports
  - Flow sheets (e.g. growth charts)



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## IT Basics – what is a PM?

- Typically, the “PM” or practice management portion of the EHR is the administrative portion of the patient’s data and can include:
  - Patient Registration (e.g. demographics and insurance coverage information)
  - Appointment Scheduling and Case-Load Mgmt
  - Eligibility Verification/Management
  - Service Capture (online super bill or charge ticket)
  - Billing and Accounts Receivable
  - Contact Tracking /Communication Logs (e.g. document patient follow-up attempts)
  - Document storage (e.g. copies of ID card, forms, etc.)



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## IT - Purchase of a System or Procurement

- There are no right or wrong answers...it is dependent on your preference.
- It is important to note that there are inherent limitations to both types of systems



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## IT - Purchase of a System or Procurement

- There are specific things that you will need in order to perform your daily functions efficiently.
- The most important consideration should be in choosing the right IT system to meet the demands of your clientele base.
- Research whether or not you prefer to purchase an actual software program or use a web-based internet program.



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## IT - Purchase of a System or Procurement

### Examples of Limitations to Medical Billing Systems:

- If you purchase a license to use a medical billing software system from a larger vendor, you should understand that you do not own the program.
- These companies are only allowing you access to their program, which is strategically designed to process medical billing claims effectively.



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## IIT - Purchase of a System or Procurement

- On the plus side, there are smaller vendors you can find who will sell you the actual medical billing software system
- As with any purchase, make sure an ample amount of research is conducted before buying.



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## IT - Purchase of a Software System

### Internet-Based Medical Billing Software:

- A limitation to internet medical billing programs is that you will not have control over your own back-up data.
- If you decide to cancel your internet billing service, you will not be entitled to keep your own medical billing records.
- Most importantly, you have to pay a monthly fee to utilize this service, as opposed to paying one total cost to buy the actual software program itself.



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## Ready to Buy?

- More than 6/10 implementations fail
- Adoption and implementation take time – more than a year and there is no rushing the process
- Do not automate poor processes and workflow. Fix them first
- Find systems that suit you as precisely as possible. Do not try to twist your business and clinical operations around software. Identifying "cool" vendors is nowhere near the top of the to-do list...that comes later
- Understand that Total Cost of Ownership involves hardware, software, networking, consultants, staff time, training, implementation involving disruptions to work in progress (billable time)
- Interoperability, standards, certification, and compliance are essential



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## Learn From Others

- Productivity will be impacted by as much as 50% during the first few months following implementation; some practices never return to 100% of original pre-EHR levels
- Don't assume that implementation of the EHR will lead to immediate usage and adoption. Have a process to ensure all staff, not just the physicians, are not "backsliding" to the old paper chart.
- Keep changes to a minimum for the first 3 to 6 months. Focus users on giving the process a chance rather than making ad hoc changes to appease staff
- Conduct staff assessment, consider training tiers. Consider computer 101 training for staff that have never used a computer before.
- Onsite, post implementation training is as important if not more important than intensive upfront training



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## Learn from Others

- Have a plan for your paper charts. Are you going to scan them into your new EHR, or will you abstract key data or patient synopsis information.
- Some groups use the chart abstraction process as an opportunity to train the clinicians – while abstracting data, the clinician is also becoming more familiar with the EHR
- Paper charts should be "retired" after no more than three patient visits. Retaining paper charts onsite indefinitely impedes your ability to implement a truly paperless environment and enables backsliding for those who prefer using the paper chart vs. the EHR
- Don't go overboard when designing your clinical templates. It is very easy to get caught up in the powerful data collection and documenting capabilities an EHR has to offer. Too many fields, drop list choices, and forms to complete result in a cumbersome system that will impede patient throughput.
- Similarly, pop-up messages and reminders can be overwhelming if too many are setup. Consider setting reminders for key items or events only; or important items that are regularly overlooked or missed.



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## IT – Maximizing System Capabilities

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## IT Maximizing System Capability- Efficiency


- Technology is being used to address the ever increasing complexities in billing, payment and collections
- Technology is automating many of the manual processes
- Technology is helping both providers and payers by proactively identifying potential errors or mistakes and avoiding them



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## IT - Maximizing System Capability - Efficiency


- Technology is simultaneously reducing the need for paper and time spent looking for missing charts, lost claims, etc.
- Technology is reducing payment and transaction turnaround times



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## IT - Maximizing System Capability – Quality


- Software solutions are designed to improve the quality of care through the use of care management protocols, identification of potential drug-drug/drug-allergy interactions, identification of or reminders for services that the patient needs to receive at the point of care, etc.
- Electronic charts such as those found in EMRs provide ready access to patient data without the need to leaf through lengthy charts or decipher handwriting.
- Improved patient compliance is achieved through automated appointment reminders, recall of patients with missed appointments, specific conditions, etc.



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## IT - Maximizing System Capability - Quality


- Governmental requirements around interoperability (HIE) will allow organizations to share clinical data electronically, improving continuity of patient care
- Evidenced based medicine will provide clinicians with access to knowledge bases that identify various courses of treatment and the expected outcome for each treatment



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## IT - Maximizing System Capability - Reporting

- Reporting of clinical data will be a key component in the transformation of healthcare. Reporting will lead to:
  - Consumerism in healthcare – unlike most purchases made (e.g. buying an automobile), patients have way of understanding the cost of care or how to evaluate the value and quality of the care they receive. Availability of data is quickly changing this dynamic
  - Transparency – data will allow clinicians, insurers, employers and patients to compare clinical outcomes, morbidity rates, etc., of one practice or care center to another
  - Greater accountability – with transparency, we will see greater accountability as comparative data begins to illustrate aberrant variations in care provided




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## Summary – Maximizing IT

- Reengineer business processes
- Automate
- Assure quality, accuracy, reliability and timeliness
- Reduce cycle time and improve cash flow
- Add functionality and enhance productivity
- Achieve Interoperability
- Share knowledge
- Data analysis, reporting and business intelligence
- Achieve Meaningful Use





## Business Practices for the Future The NIATx Way

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Addiction


## The World is Changing




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## Business Practices for the Future Project

- SAMHSA Supported
- 6 Full Collaboratives of Conveners
- 19 Peer Collaboratives
- 250 participating organizations



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## Substance Abuse




Specialty Treatment ~ 2,300,000

Abuse/Dependent – 25,000,000

“Harmful Users” – ??,000,000

Little or No Use



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## Our Opportunity

- 20 million and waiting
- Public support
- Knowledge
- Coverage




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## Our Challenge




MODEST PROPOSALS

### Rethinking the phone booth

Superman is going to have to find somewhere else to change because, let's face it, the phone booth's days are numbered. Given that mobile phones are almost ubiquitous, we need to reconceive that venerable piece of street furniture. TIME asked five young designers from different disciplines around the globe to imagine what, in a wireless world, the public phone booth might become.



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## Our Rotary Phone

- **Program to Treatment**
  - One size for all
  - Right treatment at right time for each
- **Belief to Science**
  - Experience and tradition
  - Peer reviewed, controlled studies
- **Human Service to Health**
  - Social supports and change
  - Restoration to well being
- **Grant to reimbursement**
  - Charity
  - Earned income

## Grant to Submission

Three Major Areas of Change:

- Need for Billing
- Cash Flow Management
- Securing Managed Care Contracts




## Patient Flow (& its Impact on Business Practices)

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NIATx


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## Patient Flow



*It all begins when the patient needs services*


Presentation Adopted from Gervene Williams Of the NACHC NIATx/NACHC Integration Collaborative Talk



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## The Patient Experience

- What is like to be your patient?
  - Perform detail walkthrough and document your patients' experience
  - Evaluate your findings and improve on the process
  - Tie in the ultimate patient experience with the ultimate revenue cycle




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## The Revenue Cycle



```

    graph TD
      AS[Appointment Scheduling] --> PR[Patient Registration]
      PR --> PE[Patient Exam]
      PE --> DC[Documentation and Coding]
      DC --> CP[Charge Processing]
      CP --> CSP[Claim & Statement Production]
      CSP --> PP[Payment Processing]
      PP --> R[Resubmission]
      R --> AS
      CP --> SR[Secondary Billing]
      SR --> A/R[A/R Follow-up]
      A/R --> LC[Legal Collections]
  
```



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## Appointment Scheduling: Goals

What should be the **Clinical Department** goals or the **Patient's** goals?

- Schedule the appointment within time desired by patient
- Informed patient of the sliding fee process
- Inform patient to bring insurance card and co-payment



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## Appointment Scheduling Process

- Pre-registration
- Begin the revenue cycle
- Verification of insurance
- Authorization and certification of insurance
- Sliding fees policy



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## Patient Registration: Goals

- Insure Pre-authorization received
- Insure verification of insurance and PCP validated
- Sliding fee application completely filled out
- For all appropriate patients, collect co-pay or deductibles, and verify demographic information

## Patient Registration Process

- Revenue Cycle (For Appointments)
- Verification of insurance
- Authorization and certifications
- Registration gathering demographics
- Initial review of financial requirements
- Co-pay collection for all appropriate patients

## Patient Exam: Goals

- Reasonable/timely access
- Complete clinical service
- Informative to patient
- Appropriate documentation for patient care and for correct billing to third party

## Documentation & Coding Process



Physician documents services

- Services coded by Physicians and/coders: CPT codes (procedures), ICD-9 (diagnosis)

## Documentation & Coding: Goals

- Documentation complete and signed by provider
- Codes accurately reflect patient service(s)
- Coding reviewed to insure it reflects documentation

## Ensuring Proper Coding – High-Level Overview

- Collect data on provider visits (E&M Codes)
  - By individual Provider
  - In the aggregate for the health center
- Prepare graphs to show frequency of codes used
  - Show increasing intensity of visit from left to right



## Charge Processing



Data Entry and coders enter data into Practice Management System

- Fee entered automatically or manually
- Claims Manager software scrubs entries for correctness
- Reconciliation performed to insure all entries received and entered into practice management system

## Charge Processing: Goals

- Accuracy of service and charge
- Appropriate edits to scrub data
- Charges entered timely for prompt payment

## Claim & Statement Production



Claims edited to insure completeness and correctness

- Claims sent daily to carriers for processing
- Claims flow electronic and paper
- Billing statements sent to patients for self-pay balances

## Claim & Statement: Goals

- Get accurate claims out daily
- Increase % of electronic claims
- Keep average cost per claim low
- Get statements out to patients for self-pay balances every Monday within the current billing cycle (30 days)

## Payment Processing

- All payments and denials processed within 24 hours of receipt
- Process all refunds in a timely manner

## Resubmission, Appeals, & Secondary Claims

- Invalid registration
- Medical documentation required
- Correct coding /charge corrections
- Missing referral/pre-authorizations
- Secondary claims and patient statement produced

## Resubmission & Appeals: Goals

- All invoices requiring an appeal processed are completed within one week of receiving rejection
- Process all responses from clinical departments within one day of receiving information
- All secondary claims submitted within a week of receiving primary payment

## A/R Follow-up

*Follow-up on...*

- Payment arrangements (budget plans)
- Red flag rules
- [http://www.nachc.com/client/documents/FTC\\_Red\\_Flag\\_ITPP\\_IB\\_4\\_8\\_09%5b1%5d.pdf](http://www.nachc.com/client/documents/FTC_Red_Flag_ITPP_IB_4_8_09%5b1%5d.pdf)
- Improve claim edits as an outcome
- Bad debt transfer

## A/R Follow-up: Goals

- Process all denials requiring departmental involvement within one week of receipt of reject
- Follow-up on all outstanding requests with clinical departments within one week of initial request
- Follow-up on all “no response” invoices within 45 days of submission of claim

## Legal Collections

- Actions if any to be determined by Executive Staff & Board

## A successful Revenue Cycle depends on...



## Common Reasons Claims are Denied

- The Patient is not enrolled
- The service/procedure is not covered
- No pre-certification/authorization is on file
- Demographic mistakes on the claim
- Claim not timely filed




## Strategies to Avoid Denials

- Select Implementation Tasks:
  - Incorporate standards and policies that guide personnel.
  - Establish analysis for denials
  - Coordinate training of clinical staff and billing personnel.
  - Develop a standard feedback mechanism for professional employees.
  - Institute regular chart/billing reviews to assess compliance and to identify issues requiring further education.
- Measure performance at the front desk
  - Select standard measurements for accuracy of data collection
  - Establish minimum thresholds for staff to meet

## Finance Systems Questions

- Bill at least one insurer? (70%)
- Electronic bill? (52%)
- Number of third party contracts? (2-5)
- Days in accounts receivable?
- Denied claims rate? (> 20%)




## Patient Flow (& its Impact on Business Practices)

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Year

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Year

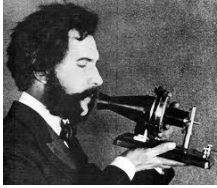
---

- What was the customer demand that changed the product?
- What did each cost at time of production?
- What came in between?
- Did federal policy dictate or contribute to changes?



**1876**

cost: \$20 = ~\$413.00 in 2009



**1958**



**2007**

~\$199 for an 8G



1876: Alexander Graham Bell invents the telephone

1881: First Telephone Yellow Pages Directory

1887: First coin-operated telephone installed in the Hartford Bank by the payphone's inventor William Gray

1891: First dial phone. 512,000 phone in the U.S.

1915: First "official" coast-to-coast call is made from Alexander Graham Bell in New York City to Thomas Watson in San Francisco

1928: Herbert Hoover becomes first president of the United States with a phone on his desk. Until this time, the President talked on a phone from a booth outside his executive office.

1957: Field tests for the first pages begin in Allentown and Bethlehem, PA

1958: Princess Phone introduced. First phone with a lighted dial, became a part of American pop culture.

1960: The first Touch-Tone telephones are test-marketed in Findlay, OH. These telephones had 10 buttons, rather than the 12 buttons of today.

1963: Hotline link established between White House and Kremlin following the Cuban missile crisis

1968: 911 chosen as the nationwide emergency number. The nation's telephone companies agree to make this three-digit sequence unavailable as an exchange number

1972: First e-mail message. The term "Internet" is used for the first time two years later, but the concept of the Internet as we know it today didn't evolve until later

1984: First Cellular phones

1990: The World Wide Web is born, marking the beginning of the Internet as we know it today. Most Americans get Internet connections through their phone lines

1991: Caller ID introduced. Controversial at the time. Caller ID has become America's most popular add-on feature

2000: "Thin Phone" which integrates wireless Internet access with local wireless phone service – becomes widely available. Lets customers stay connected with everything from Web pages to voice and e-mail-all while on the move.



\_\_\_\_\_

Year



\_\_\_\_\_

Year

- What was the customer demand that changed the product?
- What did each cost at time of production?
- What came in between?
- Did federal policy dictate or contribute to changes?

**1891**

Cost: \$150 = ~\$3650 in 2009  
by 1899 cost had dropped to \$20 = ~\$534 in 2009



**1983**

Cost: w/o radio \$100 = ~ \$215 in 2009  
Cost: w/ radio \$120 = ~258 in 2009



**2001**

Cost: \$400  
=~\$485 in 2009



- 1877** Thomas Alva Edison, working in his lab, succeeds in recovering Mary's Little Lamb from a strip of tinfoil wrapped around a spinning cylinder.
- 1878** The first music is put on record: cornetist Jules Levy plays "Yankee Doodle."
- 1887** Emile Berliner is granted a patent on a flat-disc gramophone, making the production of multiple copies practical.
- 1891** Price for a phonograph \$150 = ~\$3650 in 2009
- 1899** Price for a phonograph \$20 = ~\$534 in 2009
- 1925** The first electrically recorded 78 rpm disks appear.
- 1927** "The Jazz Singer" is released as the first commercial talking picture, using Vitaphone sound on disks synchronized with film
- 1935** BASF prepares the first plastic-based magnetic tapes.
- 1940** Walt Disney's "Fantasia" is released, with eight-track stereophonic sound.
- 1948** The microgroove 33-1/3 rpm long-play vinyl record (LP) is introduced by Columbia Records.
- 1949** RCA introduces the microgroove 45 rpm, large-hole, 7-inch record and record changer/adaptor
- 1955** Ampex develops "Sel-Sync" (Selective Synchronous Recording), making audio overdubbing practical.
- 1956** Les Paul makes the first 8-track recordings using the "Sel-Sync" method.
- 1975** Digital tape recording begins to take hold in professional audio studios.
- 1980** Sony introduces a palm-sized stereo cassette tape player called a "Walkman."
- 1982** Sony releases the first CD player, the Model CDP-101.
- 2001** Apple releases the original iPod costing \$400



\_\_\_\_\_ Year



\_\_\_\_\_ Year

- What was the customer demand that changed the product?
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**1887**



**1879**



**2009**

Cost: \$14.99



If we define the stapler as a machine for fastening papers together, then the earliest recorded account of a stapler comes from 18th century France.

The first magazine-fed, loose-wire stapler was invented in 1877 by Daniel M. Somers of New York, NY. Before this device, staplers had to be reloaded with a single staple after every use. Somers's device used a magazine that was loaded with loose staples. After one staple was used, another was automatically advanced into place by a spring.



Year



Year

- What was the customer demand that changed the product?
- What did each cost at time of production?
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16500BCE

The earliest known maps are of the sky, not the earth



2009

cost: ~\$150-800



- 1938** Between 1938-1940, I.I. Rabi invents molecular-beam magnetic resonance at Columbia University in 1938. He and his colleagues apply magnetic resonance to fundamental studies of atoms and molecules. Possibility of atomic clock to measure gravitational red shift is discussed. Rabi is awarded the Nobel Prize for this work in 1944.
- 1949** Norman Ramsey invents separated-oscillatory-field resonance method at Harvard University, for which he was awarded the Nobel Prize in 1989. Jerrold Zacharias proposes using Ramsey's method to create cesium-beam "fountain" clock that would be accurate enough to measure gravitational red shift.
- 1954** Charles Townes at Columbia University demonstrates operation of the first maser based on emission of radiation from ammonia molecules. Townes shared the 1964 Nobel Prize in physics.
- 1954** Between 1954-1956, Zacharias and National Company develop the first self-contained portable atomic clock, the Atomichron.
- 1957** Sputnik is launched in October by the Soviet Union. Satellite Doppler tracking is inaugurated at MIT Lincoln Laboratory and Johns Hopkins Applied Physics Laboratory (APL). Navy Transit program is started at APL in December.
- 1960** Ramsey and students Kleppner and Goldenberg operate hydrogen maser at Harvard University.
- 1960** Between 1960-1965, rubidium optically pumped clock is introduced. Cesium frequency standards are installed in most international time-standard laboratories.
- 1964** Between 1964-1965, first position fix from a Transit satellite is computed aboard Polaris submarine.
- 1967** Transit system is made available to civilian community.
- 1968** Standards of a Defense Navigation Satellite System are defined.
  
- 1974** First GPS test satellite, from Timation program, is launched to test rubidium clocks and time-dissemination techniques.
- 1977** Test satellite incorporating principal features of later GPS satellites, including first cesium clocks in space, is launched.
- 1978** Between 1978-1985, ten prototype GPS satellites are launched, built by Rockwell International.
- 1989** Between 1989-1993, series of 24 satellites are launched at about 6 per year.
- 1993** Final GPS satellite is launched on June 26, 1993.
- 1996** White House announces that a higher level GPS accuracy will be available to everyone.





Year

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Year

\_\_\_\_\_

- What was the customer demand that changed the product?
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**Ancient times:** Camera obscuras used to form images on walls in darkened rooms; image formation via a pinhole

**16th century:** Brightness and clarity of camera obscuras improved by enlarging the hole inserting a telescope lens

**17th century:** Camera obscuras in frequent use by artists and made portable in the form of sedan chairs

**1816:** Nicéphore Niépce combines the camera obscura with photosensitive paper

**1826:** Niépce creates a permanent image

**1861-65:** [Mathew Brady](#) and staff (mostly staff) covers the American Civil War, exposing 7000 negatives

**1888:** First Kodak camera, containing a 20-foot roll of paper, enough for 100 2.5-inch diameter circular pictures.

**1889:** Improved Kodak camera with roll of film instead of paper

**1900:** Kodak Brownie box roll-film camera introduced.

**1906:** Availability of panchromatic black and white film and therefore high quality color separation color photography.

**1907:** First commercial color film, the Autochrome plates, manufactured by Lumiere brothers in France

**1917:** Nippon Kogaku K.K., which will eventually become Nikon, established in Tokyo.

**1924:** Leitz markets a derivative of Barnack's camera commercially as the "Leica", the first high quality 35mm camera.

**1934:** Fuji Photo Film founded. By 1938, Fuji is making cameras and lenses in addition to film.

**1936:** Development of Kodachrome, the first color multi-layered color film; development of Exakta, pioneering 35mm single-lens reflex (SLR) camera

**1948:** Hasselblad in Sweden offers its first medium-format SLR for commercial sale; Pentax in Japan introduces the automatic diaphragm; Polaroid sells instant black and white film

**1963:** First color instant film developed by Polaroid; Instamatic released by Kodak; first purpose-built underwater introduced, the Nikonos

**1987:** The popular Canon EOS system introduced, with new all-electronic lens mount

**1990:** Adobe Photoshop released.

**1991:** Kodak DCS-100, first digital SLR, a modified Nikon F3   **1992:** Kodak introduces PhotoCD

**2000:** Camera phone introduced in Japan by Sharp/J-Phone

**2001:** Polaroid goes bankrupt

**2003:** Four-Thirds standard for compact digital SLRs introduced with the Olympus E-1; Canon Digital Rebel introduced for less than \$1000

**2004:** Kodak ceases production of film cameras

**2005:** Canon EOS 5D, first consumer-priced full-frame digital SLR, with a 24x36mm CMOS sensor for \$3000



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Year

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1971 – Umatic But the cost—[US\\$1,395](#) for a combination **TV/VCR**, or **\$7,069 in 2007 dollars**

1975 Betamax, which came with a 19" Trinitron TV, **cost \$2495 in 1975**. (\$9940 in 2009)

1976 JVC VHS, by 1985, you could buy a VHS recorder **for \$299 (\$596 in 2009)**

While VHS machines' lower retail price was a major factor, the principal battleground proved to be recording time.

The original Sony Betamax video recorder for the NTSC television system could only record for 60 minutes.

JVC's VHS could manage 120 minutes, followed by RCA's entrance into the market with a 240 minute recorder.

These challenges sparked a mini-war to see who could achieve the longest recording time.

RCA felt the recording time was too short, insisting that they needed at least a 4-hour recording time (reportedly because that was the length of an average televised U.S. football game).

By 1980, out of an estimated 100,000 homes with VCRs, 70% were rented, and the presence of three (the third being Video 2000) competing formats meant that renting was an even more attractive choice, since a small fortune (**about £2000 or \$3900 in today's prices**) could be spent on a system which may become obsolete. By the time Betamax machines became easier to rent, VHS had already claimed 70% of the market.

**1997** DVDs are launched

**1997:** NetFlix.com, Inc. is formed in California by Reed Hastings and Marc Randolph.

**1998:** The company begins offering DVD rentals and sales.

**1999:** Sales are halted; Group Arnault invests \$30 million in the firm and a subscription plan debuts.

**2000:** Revenue sharing deals are signed with Warner Brothers and Columbia film studios; CineMatch is introduced.

**2001:** A partnership with Best Buy gives Netflix exposure in the chain's 1,800 stores.

**2002:** The company goes public and changes its name to Netflix, Inc. **\$9.95/month for unlimited one-at-a-time rental**

**2003:** Subscribers top 1,000,000, and Netflix has its first profitable quarter.