

Using Electronic Data

**How to Make Your Life Easier
And
Your Business More Efficient**

E3 Informatics LLC

Federal Push For EMR

- The Federal Government is pushing for the implementation of Electronic Medical Records by the year 2014
- President Obama's Stimulus package specifically addresses the need for Electronic Medical records and provides significant funding for implementation

Why We Need Electronic Data

- National level
 - Better coordination of health care
 - Patient histories and important documentation are more easily accessible
 - Consistency of data
 - Ability to manage large volume of data with least amount of effort

Why We Need Electronic Data

- Local level
 - Easy access to records
 - Better serve consumers by quickly accessing their clinical histories and their relationships with staff
 - Better handling of emergent situations
 - You can not run management reports from paper records!

Why We Need Electronic Data

- Local level
 - Management Reporting
 - Productivity
 - Quality Control
 - Efficient Billing
 - Denial Analysis
 - Compliance
 - Medicaid Cost Reporting
 - Budgeting

Concerns about EMR

- Privacy of consumers and security of data
 - Who will have access to data
 - Where will the data be stored
 - How will the data be accessed
- Must meet the privacy and security standards required by HIPAA

Back to Paper

- In the past, Area Mental Health Authorities had large computer systems to handle data
 - Demographics
 - Some medical records
 - Electronic claims
 - CDW data
- With divestiture and the proliferation of new and smaller companies, the trend has been back to paper or direct data entry into other entity's systems

Back to Paper

- Many new and smaller companies
 - Have clinical experience, but lack business experience
 - Do not have the technical experience to work with electronic data
 - Have not budgeted for business infrastructure
 - Look for the lowest cost of doing business today, not the best for long term success

Back to Paper

- Several larger and more established companies do have sophisticated systems
 - Have had time and budgets to build infrastructure
 - These companies use their systems to run their businesses, not just to meet State and local reporting requirements

How LME's Use Electronic Data

- Medicaid Claims Data from the State
 - LME's receive monthly data files on providers in the LME catchment area
 - Detailed claims data including all charges, payments, and denials
 - Includes Community Support modifiers indicating rendering provider credential (can calculate Q versus Para-professional ratios)
 - Data is easily merged into databases

How LME's Use Electronic Data

- Authorization data
 - Value Options Data
 - Internal IPRS authorization data
- NC Topps Data
 - Outcomes tracking
- IPRS data
 - IPRS target population enrollment data
 - IPRS claims adjudication data

How Can Service Providers

Use

Electronic Data?

How To Use Electronic Data

- Implement the Use of Electronic Medical Records
 - Convert your forms to data entry screens
 - When possible, use dropdown menus and lookup lists to ensure the accuracy and consistency of data (e.g., diagnoses)
 - Make sure forms can be printed out in correct format for required signatures and courts

How To Use Electronic Data

- In EMR systems, all documents and notes have unique identifiers that can be linked to one another
 - Complete audit trail of service delivery
 - Link service delivery to goals in treatment plans and person centered plans
 - Links notes and treatment plans to claims and payments

How To Use Electronic Data

- Ensure that notes are properly approved by supervisors
 - Staff can be electronically linked to their supervisors
 - Supervisors can be automatically notified when they have notes to review
 - If supervisors reject notes, then staff can be automatically notified
 - Minimize paybacks

How To Use Electronic Data

- Sometimes it is quite difficult to get clinicians to accept Electronic Medical records
- Make sure that you always have free text fields to record specific details not easily documented with dropdown menus and lookup lists

How To Use Electronic Data

- **Measure Productivity**
 - Which staff members are pulling their weight and which ones are costing you money?
 - Which locations are performing better than others?
 - Which services are paying for your operations and which ones are losers?

How To Use Electronic Data

- **Measure Productivity**
 - Base staff expectations on job descriptions with well defined performance goals, e.g. billable hours per week
 - Measure the billable hours by directly linking productivity reports to services/notes recorded in the electronic medical record

How To Use Electronic Data

- **Measure Productivity**
 - Look at services rendered versus services billed
 - Look at services rendered versus services authorized
 - Look at services billed versus claims paid
 - Look at denial volume and trends per staff member

How To Use Electronic Data

- Measure Productivity

Date Range	Staff ID	Staff Name	Service	Targ Unit	Actual Units	Actual %	Paid Units	Paid %
1/1/08-1/7/08	J12	Jones, D	H00036HA	20	16	0.8	12	0.6
1/1/08-1/7/08	A15	Adams, P	H00036HB	32	32	1	32	1
1/1/08-1/7/08	D22	Doe, J	H0004	30	10	0.33	3	0.1

How To Use Electronic Data

- **Measure Productivity**
 - Use data to find out why productive staff members are productive
 - Use findings to mentor underachievers
 - Use findings as part of staff evaluation process
 - Use findings to make sure your business survives!

How To Use Electronic Data

- Authorization Tracking
 - The number one reason for unbilled services / unpaid claims is the lack of a valid authorization
 - No authorization
 - Authorization is out of units
 - Authorization had expired

How To Use Electronic Data

- Authorization Tracking
 - Track the units remaining in an authorization as services are rendered
 - Track the units remaining in an authorization as services are billed
 - Build a history of under and over utilization to identify problem areas

How To Use Electronic Data

- Authorization Tracking
 - Build a management report to identify when authorizations are within a predetermined number of units remaining
 - Build a management report to identify when authorizations are within a predetermined number of days remaining
 - Have the reports automatically distributed to the responsible staff and supervisors

How To Use Electronic Data

- Authorization Tracking
 - Develop a management report to identify average length of gaps is reauthorizations
 - Use the reports to identify staff who have problems related to proper authorization procedures
 - Use the analysis and trends to develop corrective actions

How To Use Electronic Data

- **The Intake Process**
 - Use your system to determine whether the consumer is a current or past patient
 - Does the consumer have an existing electronic medical record with important historical data
 - Does the consumer have a history with any existing staff members

How To Use Electronic Data

- The Intake Process
 - Prevent the consumer from having multiple medical files within the organization
 - Have protocols for name searches
 - Have protocols for use of nicknames or maiden names
 - Have systems that notify you if a social security number, Medicaid number, or other unique identifier already exists within your electronic records

How To Use Electronic Data

- The Intake Process
 - Make sure you gather essential intake data by making fields on the screen required
 - Demographic data required for billing
 - Primary payers
 - Policy Numbers
 - Responsible parties
 - CDW data
 - Intake data related to IPRS target populations

How To Use Electronic Data

- **The Intake Process**
 - Use drop down menus and lookup lists to make sure you are gathering data consistently
 - Use field formatting to make sure problem data, such as dates or Medicaid numbers, are always formatted the same way
 - Think about the way you want to retrieve and analyze data in reports

How To Use Electronic Data

- The Intake Process
 - Use the intake data to track usual versus emergent intakes and their outcomes
 - Use the intake data to track and analyze presenting problems
 - Use the intake process and your computer system to determine the course of action allowed by the consumer's payer sources

How To Use Electronic Data

- **The Intake Process**
 - Use intake QC reports to determine which intake staff members are performing up to par and which intake staff members are not gathering data sufficiently
 - Set standards that can be measured by QC reports
 - Hold intake staff accountable

How To Use Electronic Data

- Medicaid Cost Reporting
 - The Federal Government requires that Medicaid rates be based on cost
 - In North Carolina, practically all providers who receive Medicaid funds must do a NC Medicaid Cost Report
 - Accuracy is critical because our survival depends on reasonable rates

How To Use Electronic Data

- Medicaid Cost Reporting
 - Under year 2007 rules, providers who do Cost Reports must provide specific line item details to document the number of service units they provided
 - The documentation must be in electronic format, preferably Microsoft Access
 - The documented units must tie to the numbers of service objective units entered into the State's Cost Report software.

How To Use Electronic Data

- Medicaid Cost Reporting
 - The documentation must include:
 - Consumer Name and ID
 - Staff Name and ID
 - Service Code
 - Units Rendered
 - Charge Amount
 - Received Amount
 - Primary Payer
 - Data required regardless of payer source or payment status

How To Use Electronic Data

- **Medicaid Cost Reporting**
 - Many companies have had problems meeting the requirements because:
 - They only have paper records/notes
 - Their claims were keyed directly into the EDS web portal and no electronic records were kept
 - They recorded service data in MS Excel in formats not easily converted to a database
 - Records were stored in multiple locations and not readily accessible
 - Several companies have had to pay overtime or hire temps to re-enter claims data into a database

How To Use Electronic Data

- Medicaid Cost Reporting
 - Requires specific personnel data that must be integrated with service delivery data
 - Staff Name, ID, Title and Credential
 - Number of hours worked per cost center
 - Wages and benefits per cost center
 - Services delivered per cost center
 - In the future, documentation of training time and travel time may be required

How To Use Electronic Data

- Medicaid Cost Reporting
 - Personnel expense data must be merged with service units data to correctly allocate each staff member's costs to the services they delivered
 - The data merge must be performed per cost center
 - For large companies, the amount of personnel data required in a Cost Report can be well over a thousand lines

How To Use Electronic Data

- Medicaid Cost Reporting
 - If you have good electronic service data, and
 - If you have good electronic personnel data, then
 - The files can be electronically merged to create a personnel cost file that can be imported into the State's Cost Reporting software
 - Saves hours of work and ensures accuracy

How To Use Electronic Data

- Budgeting
 - Base budgets on historical data
 - Base budgeting on reasonable productivity standards
 - Budget down to the cost center level
- Use budgeting software to explore impacts of different staffing patterns and service mixes

How To Use Electronic Data

- **Budgeting**
 - Predict revenue streams based on productivity
 - Predict the impact of:
 - Rate changes
 - Required staff ratio changes
 - Required staff credentialing changes
 - New services versus old services

How To Use Electronic Data

- Outcomes Tracking
 - Clinical Outcomes
 - Make sure your efforts are producing results
 - Show payers and endorsing entities that your organization is effective
 - Use your results to get more business
 - Use data and trend analysis to determine what interventions work best
 - Make accrediting entities take notice!

How To Use Electronic Data

- Outcomes Tracking
 - Financial Outcomes
 - Tie services to costs to determine if you can afford to provide the services
 - Determine if you are within budget
 - Compare the financial results of facilities or programs against one another
 - Look at the cost of staffing patterns and credential levels to see if you can afford them

How To Use Electronic Data

- Outcomes Tracking
 - Customer Satisfaction
 - Documentation required by accrediting entities
 - Use a variety of data gathering techniques to gather this data, such as on-line surveys, surveys that can be scanned into a database, forms that can be data entered
 - Incident Reporting
 - Be careful about security and privacy
 - Might want to enter into a separate database

How To Use Electronic Data

- Accreditation
 - Accrediting bodies look for:
 - Electronic practice management systems
 - Systems that clearly tie service delivery to treatment plans
 - Data driven clinical outcome analysis
 - Data driven customer satisfaction analysis
 - Data driven budgeting
 - Easy access to historical data

How To Use Electronic Data

- Ensure compliance and minimize paybacks
 - Reliable access to clinical and billing records
 - Documented review of para notes
 - Ensure that services are only delivered by properly credentialed staff
 - Ensure that Q ratios are being met
 - QC claims before they go out the door

How To Use Electronic Data

- Base some QC reports on compliance tools used by payers and endorsers
 - Medicaid audit tools
 - LME audit tools
 - Frequency and Extent of Monitoring (FEM) tools

How To Use Electronic Data

- Automate routine and frequent activities
 - Scheduling
 - Claims Processing
 - Payment Posting
 - Denial Processing
 - Payroll
 - General Ledger Entries
- Free up staff to handle out of the ordinary problems

Electronic Claims

Having Your Cake

and

Eating It Too!

Electronic Claims

- Why is this important?
 - You own your own electronic claims data
 - Claims analysis
 - Cost reporting
 - Budgeting
 - Productivity reporting
 - Financial outcomes
 - You don't have to beg somebody else for data!

HIPAA Compliant Claims

- Federal HIPAA Rules have standardized electronic claiming
 - Claim file formats have been standardized and very clearly defined
 - All payers must use the HIPAA compliant formats
 - All payers must use the same NPI identifiers and taxonomy codes

HIPAA Compliant Claims

- Most software companies have already built the new HIPAA compliant formats into their systems
 - Set up is generally the same as with paper claims
 - Easily handles group outpatient and doctor practices
 - Easily handles enhanced services
 - Maintenance is table driven so you do not need a lot of technical expertise

HIPAA Compliant Data Sets

- **837 Electronic Claim Files**
 - 837P (Professional) handles outpatient claims
 - Enhanced services
 - Outpatient therapy
 - Doctors
 - 837I (Institutional) handles inpatient services
 - Sometimes required for group homes, hospitalization, partial hospitalization

HIPAA Compliant Data Sets

- 837 Electronic Claim Files
 - Can be used to direct bill Medicaid
 - Can be used for CAP billing
 - Can be used with several LMEs for IPRS billing and pass-through Medicaid billing
 - Need standardization of 837 specifications
 - Need more LMEs to accept 837 files
 - Medicare will discount claims if not submitted electronically

HIPAA Compliant Data Sets

- 837 Electronic Claim Files
 - The use of NPI numbers and taxonomy codes are now required
 - Generally will need a billing provider and a rendering provider
 - Sometimes need a referring provider
 - Sometimes need facility location data

HIPAA Compliant Data Sets

- 837 Electronic Claim Files
 - Must include:
 - Consumer ID and Name
 - Consumer Address
 - Consumer Gender and Birth Date
 - Consumer Insurer and Policy Number
 - Procedure Code and Modifiers
 - Date of Service
 - Place of Service
 - Units Charged
 - Charge Amount

HIPAA Compliant Data Sets

- 837 Electronic Claim Files
 - Every claim and every service detail has a unique identifier that follows the service from delivery to billing to payment
 - Complete Audit Trail
 - Can easily handle replacement claims

HIPAA Compliant Data Sets

● 837 Electronic Claim Files

NM1*85*2*Billing Provider*****XX*1831299999~
N3*271A ABC ROAD~
N4*SPINDALE*NC*281602207~
REF*EI*860999999~
HL*2*1*22*0~
SBR*P*18*****MC~
NM1*IL*1*DOE*JANE****MI*900112233K~
N3*141 ANY RD~
N4*FOREST CITY*NC*28043~
DMG*D8*19741221*F~
NM1*PR*2*EDS MEDICAID*****PI*DNC00~
N3*4905 WATERS EDGE DRIVE~
N4*RALEIGH*NC*27606~
CLM*40113-3752*47.16***11::1*N*C*Y*Y*C~
HI*BK:2989~
NM1*82*1*Provider*Rendering****XX*159999990~
PRV*PE*ZZ*363LA2200X~
LX*1~
SV1*HC:90862*47.16*UN*1***1~
DTP*472*D8*20070321~
REF*6R*009CB10000000000000000000000000000~

HIPAA Compliant Data Sets

- **835 Electronic RA File**
 - Contains Payment and Denial Information
 - Automatically imports into most billing systems
 - Auto-posts payments
 - Produces reports on denied claims
 - Denial Codes have been standardized
 - Claims and services matched by the unique identifier on the 837 claim file

HIPAA Compliant Data Sets

- 997 Acknowledgment File
 - Receive this from the payer very quickly after submitting an 837 claim file
 - Acknowledges receipt of the 837 and verifies whether it was accepted from a HIPAA compliant standpoint
 - If the 837 was not accepted, the 997 will give you the reasons

HIPAA Compliant Data Sets

- 266/277 Health Care Claim Status Request
 - EDS is currently using the 277 file to notify providers about pended claims
 - Sent at the same time as the 835 RA files
 - For information purposes only

HIPAA Compliant Data Sets

- 270/271 Health Care Eligibility Benefit Inquiry and Response File
 - Use to verify insurance coverage
 - Can submit several inquiries at once; batch process
 - Can use to verify Medicaid coverage

HIPAA Compliant Data Sets

- 278 Referral Certification and Referral File
 - Use to request and receive service authorizations
 - Not many payers are using this yet
 - Hope for the future!

HIPAA Compliant Data Sets

- 834 Enrollment and Disenrollment in a Health Plan File
 - Generally not used by services providers
 - LMEs use this file to enroll and disenroll consumers in IPRS target populations

HIPAA Compliant Data Sets

- Data transfer must meet the HIPAA requirements for security and privacy
 - Data transfer is encrypted
 - Data transfer is password protected
 - Data transfer is secure through the use of “SFTP”

HIPAA Compliant Data Sets

- Must have a Trading Partner Agreement (TPA) between the billing party and the payer
 - You will receive a login and password
 - You will receive an electronic mailbox on the payer's server
 - Usually, you will drag and drop your claim files into your mail box...it's that easy!

How Do I Choose a System

And

What Are the Options?

Which System Is Best For Me

- What can I afford?
 - Upfront
 - Monthly
- Do I have expertise in my company to manage a data system?
- Is my company networked?
- Do I have multiple offices?
- What is my service volume?
- What functionality do I require?
- Has the company done business in NC?

Simple Billing Systems

- Relatively inexpensive
- Easy set up
- Very limited clinical information, generally diagnosis only
- Good demographic data
- Good insurance data
- Good authorization tracking
- Excellent service data
- HIPAA compliant electronic claims

Simple Billing Systems

- Auto-posting
- GL transfers to simple accounting packages, such as QuickBooks
- Limited network functionality
- Good built-in financial management reports
 - AR aging
 - Consumer statements
- Relatively inexpensive
- Example – EZ Claim

Web Based Hosted Systems

- Generally, little upfront cost
- Monthly fee per seat or account
- Does not require major investment in hardware
- Data is stored on host's servers
- Maintenance and backups handled by software company
- Access system through the internet using standard browsers
- Meets HIPAA security requirements

Web Based Hosted Systems

- Fully integrated practice management systems
 - Electronic Medical Record
 - HIPAA compliant electronic billing
 - More sophisticated demographic data
 - More sophisticated authorization tracking
 - More sophisticated report writing functionality
 - More sophisticated GL interfaces

Web Based Hosted Systems

- Sophisticated clinical records
 - Intake
 - Scheduling
 - Treatment plans
 - Person Centered Plans
 - Allergies, medications
 - Service note driven billing
 - Service notes approved by supervisor
 - Good audit trails from intake to claims

Web Based Hosted Systems

- Usually built using relational database software, such as SQL or Oracle
 - Sophisticated report writing functionality
 - Almost unlimited as hoc reporting
 - Some have custom report “wizards”
- Examples – Alpha CM, AYM, ShareNotes. Hosted versions of Echo Data

Locally Installed Systems

- Usually expensive
- Usually requires upfront software costs
- Requires major investment in hardware, such as servers
- Data is stored locally
- Requires in-house expertise for maintenance and back-ups
- Allows for maximum control

Locally Installed Systems

- Fully integrated practice management systems
 - Electronic Medical Record
 - HIPAA compliant electronic billing
 - Sophisticated demographic data
 - Sophisticated authorization tracking
 - Sophisticated report writing functionality
 - Sophisticated GL interfaces
 - Sometimes includes payroll and GL

Locally Installed Systems

- Usually built using relational database software, such as SQL or Oracle
 - Sophisticated report writing functionality
 - Almost unlimited as hoc reporting
 - Some have custom report “wizards”
- Examples – Net Smart, Echo Data, CMHC, UniCare

Relational Data

- Excel is generally two dimensional
- Relational databases have unlimited dimensions
 - Different types of data are stored in many separate tables
 - When writing reports, tables can be joined in an unlimited array
 - Incredibly powerful ad hoc report functionality

Report Writing

- Many software packages come with a large library of existing reports
- Some software packages come with easy to use report writing wizards
- Crystal Reports, an off the shelf report writer, is compatible with most software packages
- Microsoft Access can often be used via an ODBC connection

Report Writing

- Biggest challenge in report writing is finding out where the data is stored
- Use a copy of the database to study the table structure
- Run reports from a copy of the database to minimize effect on main system
- Consider building a data warehouse for report writing

Tools for Mining Data

- Monarch Software
 - Produced by Datawatch Corporation
 - Can mine data from PDF files, text files, formatted report files
 - Can export to a variety of file types
 - Excel
 - Microsoft Access
 - Most relational databases

Tools for Mining Data

- OCR (Optical Character Recognition) Scanning Software
 - Such as OmniPage
 - Lifts text from scanned documents
 - Output to a variety of file types
 - Can be very tricky to use
 - Scanned characters often misread, for example “5” might be read as “S”

Tools for Mining Data

- **Microsoft Access**
 - Easy to learn
 - Inexpensive
 - Very good import capabilities
 - Text files
 - Excel files
 - Can be attached to relational databases via ODBC
 - Very good report writing capabilities

Lessons Learned

- Do not underestimate the value of user training
- Be realistic. Systems can't do everything.
- Systems are tools that require human input. Systems alone will not help you.
- Systems, along with solid policies and procedures, can be invaluable.

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