

Toward an Electronic Health Record in a Community Health Facility

**Moving from Paper to
Paper-less**



About Pathways Health Centre for Children

- Located in Sarnia, Ontario, on south shore of Lake Huron
- Border city across from Port Huron, Michigan
- Population Lambton County: 200,000
- Our vision statement is “Partners along the path to potential”

About Pathways (cont.)

- Pathways serves Lambton County's children 0-18 with physical, developmental and communication needs
- Also some specialized adult services
- Provide rehabilitation and support services as well as an on-site integrated day care
- Funded by provincial and local governments
- 35 clinical staff and 15 ECE's work in the community – in day-cares and schools
- One FTE IT support (0.4 FTE during implementation)

The Existing Client Record (pre-project)

- > 2300 paper charts, centrally located in our building
- Clinicians had no access to chart when working in community
- Created their own “working” files which they took with them – confidentiality risk, client information in personal files only
- Single chart location = no backup protection = risk of loss
- Labour-intensive chart maintenance processes
- Accreditation – availability of all client information to all clinical staff – information sharing

Life of a client chart (pre-project)

New client



Create Paper chart



Add paper documents



Client Discharged



Prep chart for scanning (time)



Scan paper chart \$\$\$

Solution

- Electronic client chart
- Secure access from anywhere via internet
- Fit within budget
- Management's strategic directions – reduce paper, eliminate non-productive work steps (i.e. costs)
- Invest in system solutions to reduce ongoing costs and inefficiencies

Life of an imaged client record

New client



Scan paper as it comes in



Client Discharged

Cost-Benefit Analysis

Calculated costs over 5 years

- Hardware
- Software licences
- Annual support for software
- Annual costs for outsourced imaging without project
- Annual costs for outsourced imaging with backfile conversion
- Savings in staffing through attrition
- Without staff savings counted in, the imaging project will cost \$2000 more per year than current process
- But: the benefits of access, security, and confidentiality justify the cost

Implementation *Software Selection*

- List of required features of an imaging system
- Explored software and practices of other CTC's
- Requested proposals from two area software vendors
- Very close on price and features
- Site visit to see software A in use at a neighbouring CTC
- Software B already in use for our discharged files – we chose this one (user interface and familiarity with product; workflow module)

Getting Buy-In

- Early 2009 – introduced to Health Records and PAC
- Explained how electronic chart would allow more clinical time (*WIIFM*)
- Scanned EHR being implemented in local hospital system (2009)
- Clinical manager and Health Records support staff attended site visit demo (summer 2009)
- Fall 2009 – Managers ok'd – in line with strategic directions
- Business case – money in current year's IT budget

Project Plan

- Software purchased
- Sponsor, stakeholders and project team
- Scope document
- Timeline of work steps
- Key milestones

Project Team

- Clinical Information Services Manager
- Clinical Manager
- Two clinical staff
- Health Records support staff
- Information Technology support
- Vendor support

Project Work Plan

- Tasks were listed on 3" x 3" sticky notes – one note per task
- Allowed for easy development and expansion of ideas; adjustment of the timeline
- An excel spreadsheet was used as a GANTT chart

Obstacles along the Path

- technical hiccups – imaging and indexing workflow steps worked perfectly on computer A, but would NOT move forward on computer B – IT hours on phone with vendor
- Problem-solving skills put to test
- Flow of new client information to clinical staff had to be re-thought and re-designed – “paperless” had to be phased in

Obstacles along the Path (cont.)

- Staff re-organization at same time as introduction of paperless process
- Changes in roles and responsibilities – some missteps related to who should do what
- Learning curve – Health Records staff; clinical staff; IT

Technical things

- Size of imaged files – make sure server has capacity to handle growth
- Secure remote access via intranet
- Monitoring of ratio of licenses to staff
- Location and configuration of scanning workstations
- Integration of imaging & indexing software with existing clinical database – no duplicate data entry

Key metrics

Before and after in-house imaging:

- Cost of post-discharge imaging of client files
- Incidence of misplaced client files
- Space required to store client files
- Travel costs for staff
- Clinical staff service time in contact with children

Key Messages

- A small organization CAN see the advantages of an electronic record system
- at a (relatively) low cost
- with limited IT resources
- using common Office desktop tools (and sticky notes!) to manage the project
- but with vendor support (critical success factor!)
- and with staff enthusiasm (also a critical success factor).

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