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Applied Communication Technology: Information . Organizations . Networks

Technology Transforming Medical Practice: the emergence of changes brought along by the EMR

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Technology Transforming Medical Practice: *the emergence of changes brought along by the EMR*

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1. Introduction

❑ The healthcare sector: lagging behind other industries when it comes to adopting ICTs.

❑ President Bush called for the need to move to Electronic Medical Records (EMRs), as these "…*can help change medicine, save money and save lives" (Washington Post)*

❑ Move beyond measuring efficiency & cost.

❑ The implementation of the EMR= dynamic process where the technology+ the medical practice affect each other and transform one another.

2. Setting the stage

❑Place: community healthcare centre (Canada)

❑Longitudinal ethnographic research

In total:
- ❑ 14 Interviews
- ❑ 10 Observation sessions (29 hours)
- ❑ Formal Meetings: 3 Clinical meetings, 29 EMR meetings, 2 Meetings w/vendor
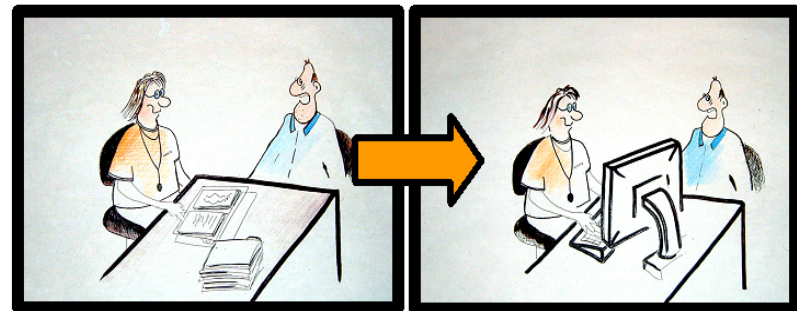- ❑ 3 EMR training sessions

Technological deterministic & instrumental tone:

❑ The transition to an EMR= natural and inevitable progress

❑ Part of *"where the future is going"*

[Posters placed in the clinic to introduce the EMR to patients:]

WE ARE MOVING WITH THE TIMES

PUTTING AWAY **PAPER CHARTS**   SWITCHING TO **ELECTRONIC CHARTS**
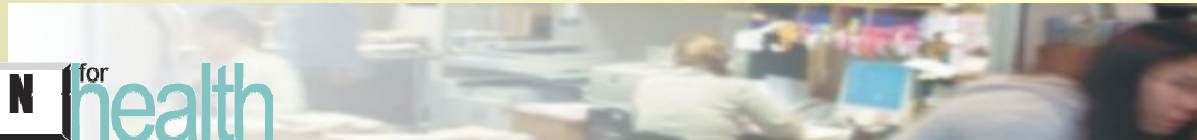
EMR= the late driving force in a modern clinic

4. Changes and implications

❑ *Initial* changes➔ characterized as having *straightforward, direct* and *immediate* effects.

❑ *Emergent* changes➔ characterized as having *higher* and *deeper* level of *impact,* and *broader implications* in the *long term*.
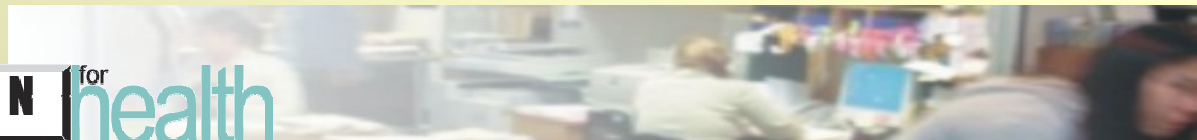
4.1- Initial changes

Initial Changes:	/ *Immediate* implications:
❑Performance	❑Documentation activities
❑Amount, type & format of information	❑SOAP template: transition from 'free text'→ 'structured entry'
❑Amount of tasks required to complete a patient trajectory	❑Decrease articulation work (coordinating & sorting information) ❑Decrease in articulation work for secretaries who are gradually exercising higher degree of responsibility for advanced tasks.
❑Division of labour/distribution of work	❑Increase articulation work for doctors
❑Presentation of workload	❑From piles of papers→ electronic list masked behind a screen
❑Responsibilities & interdependencies	❑Removal of sorting & buffering mechanisms
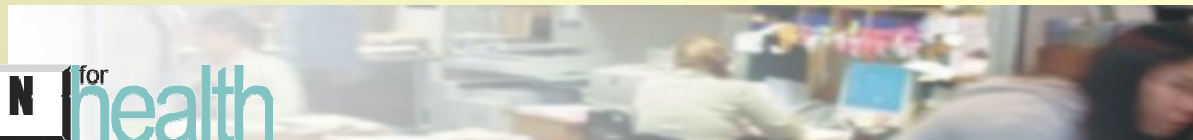
- Emergent changes were observed after a long period of use
- Increased knowledge about the EMR
- Stabilization:

- Shifting focus: from *'how to do things'* → to *'this is how things can be done'*

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4.2- Emergent changes, continued…

Emergent Changes:	/ *Broad* implications:
❑'Practice search': function to run queries	❑Provides overview of a particular type of patient's population ❑Ensures capturing all patients, including inactive patients
❑The creation of 'rules' for reminders ❑'Follow-ups'	❑Automation of former coordination mechanism ❑Delegation of responsibilities to EMR
❑'Practice search' & 'rules' ❑Allows monitoring demographics & long-term changes in disease patterns	❑Provides a holistic, complete & accurate view of a whole population ❑Enabling preventive care & chronic disease management
❑'Graphs': Visual representation of patient's progress over time ❑Translates numerical data into visual information- comprehensible to patients	❑Sheds a light on something that was previously unseen or hard to discern. ❑Delegation of responsibilities to the EMR
❑Standardized charting & billing practice	❑Ensuring performance measures, medical legacy & outcomes analysis.

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4.2- Emergent changes, continued…

Emergent Changes:	/ Broad implications:
❑The SOAP template: enforcing structured content approach	❑Constraining flexibility in charting practices ❑Contextualizing individual patients within the larger population. ❑But, limiting analyses of multiple problems
❑Enhanced Point of Care Charting (POC)	❑Fulfilling expected formal & legal charting practice
❑Decrease in the number of tasks & staff involved in articulation work	❑Increased task-handling; increase efficiency. ❑But, discouraging from conducting in-depth analysis.
❑Access to internet & graphs	❑Promoted active engagement of patients ❑Introduced new roles for doctors
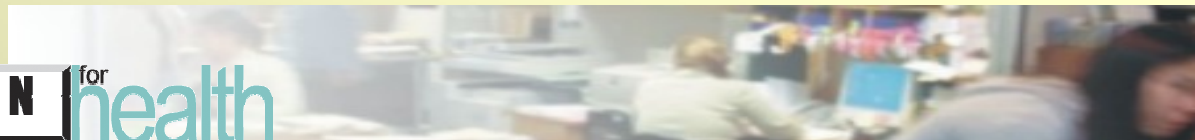
5. Summary and concluding remarks

❑ Realization of *old standards & formal protocols,* or *improvements of existing practices*
❑ Realization of *EMR visions*

❑ *Unexpected* implication.
❑ Introducing *new practices*

The EMR is playing a larger role in the delivery & organization of care. It is becoming more than just a tool, it is acting on- and transforming- the medical practice

Thank you for listening!

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