

# The experiences of nurses using electronic health records in mental health settings



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# Objectives

- Discuss literature that describes the experiences of nurses using electronic health records (EHRs) in mental health settings
- Identify strategies uncovered in the literature to support the adoption of EHRs by nurses in mental health settings

# My experiences...



# Context

- 1 in 5 Canadians are afflicted with a mental health and/or addictions illness (Smetanin et al., 2011)
- 18% of inpatient hospitalizations for children and youth (age 5-24) in Canada were for a mental disorder (Canadian Institute for Health Information, 2015)
- Care takes place in both outpatient and inpatient settings
- Some mental health organizations have EHRs in place
- “Canada had made tremendous progress over the past 10-plus years in increasing the availability and use of digital health solutions” (Canada Health Infoway, 2016)

# Literature Review of studies involving nurses and EHRs in Mental Health Settings

- Care planning can be done more quickly, however is less specific (Ammenwerth et al., 2001)
- Information is more readily available (Baillie et al., 2012; Boyer et al., 2010)
- Adherence to charting of multiple health professionals (Boyer et al., 2010)
- Improved legibility (Edwards et al., 2011)
- However, there are many challenges... (Baillie et al., 2012; Boyer et al., 2010; Edwards et al., 2011; Saloman et al., 2010; Stahl et al., 2011; Strudwick & Eyasu, 2015)

# Challenges

1. Disparate Systems
2. Space
3. Network Speed
4. Equipment & Access
5. Usability

# 1. Disparate Systems

- ➔ “The full value of digital health will be realized when health information systems are connected and able to be easily accessed and shared by authorized clinicians” (Canada Health Infoway, 2016)

## 2. Space



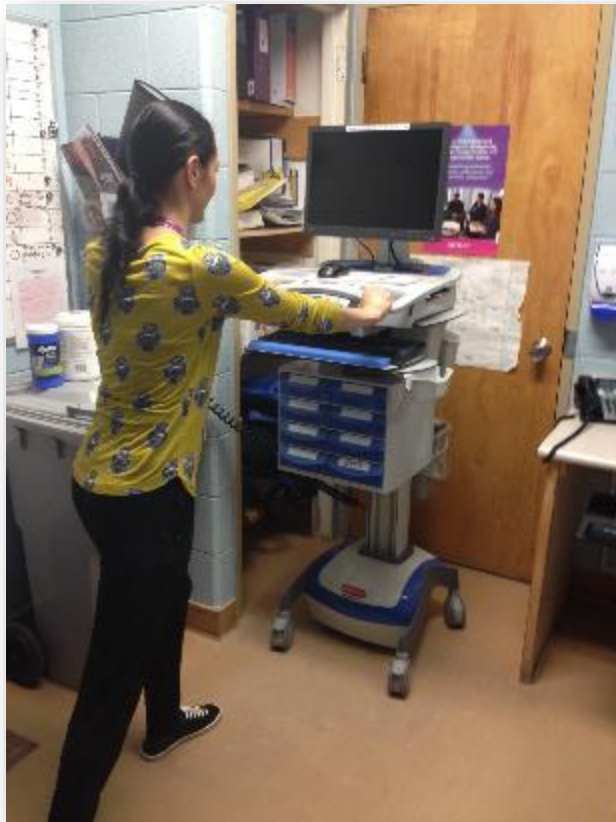
- Edwards et al., 2011 report that a lack of space to use computers as one of the greatest barriers to nurses' use of the EHR



# 3. Network Speed

- Organizations built without information technology in mind
- System downtime is a drawback of using EHRs (Baillie et al., 2012)
- “Laptops are slow” (Whittaker et al., 2009, p. 295)

## 4. Equipment and Access



- A lack of computers was reported by nurses as a barrier to their EHR use (Baillie et al., 2012; Edwards et al., 2011)

# 5. Usability



- Nurses reported several usability issues such as:
  - Duplicate charting (Baillie et al., 2012)
  - Decreased workflow and efficiency (Boyer et al., 2010)
  - System not capturing all important information (Stahl et al., 2011)
  - Not “user friendly” (Baillie et al., 2012)

# Scenario: Barcode Medication Administration in a Mental Health Setting



- Barcode medication administration has been implemented hospital-wide
- During this process, the nurse scans the patients hospital wrist band as well as the medication to verify the 'rights' of the medication administration
- One unit (rehab) has higher 'compliance' rates for bar code scanning than another unit (acute). Why might this be?



Rehab Unit	Acute Unit
<ul style="list-style-type: none"> <li>• 3 barcode scanners, 4 nurses</li> </ul>	<ul style="list-style-type: none"> <li>• 3 barcode scanners, 6-7 nurses</li> </ul>
<ul style="list-style-type: none"> <li>• 2 computers in the medication room, and a workstation on wheels</li> </ul>	<ul style="list-style-type: none"> <li>• 2 computers in the medication room, and a workstation on wheels</li> </ul>
<ul style="list-style-type: none"> <li>• Patients are very familiar with rules and routines on the unit due to duration of stay being several weeks to months, as well as stage in the recovery journey</li> </ul>	<ul style="list-style-type: none"> <li>• Patients are less familiar with rules and routines on the unit due to a high turnover rate, as well as stage in the recovery journey</li> </ul>
<ul style="list-style-type: none"> <li>• Audits may or may not be done. Information is not shared with staff if it is done.</li> </ul>	<ul style="list-style-type: none"> <li>• Audits may or may not be done. Information is not shared with staff if it is done.</li> </ul>
<ul style="list-style-type: none"> <li>• Culture of “we scan on this floor”</li> </ul>	
<ul style="list-style-type: none"> <li>• Binders with photos and barcodes</li> </ul>	

# What can be done about these challenges?

- Preparing future nurses e.g. Canadian Association of Schools of Nursing: Entry-to-practice nursing informatics competencies
- Educating current nursing leaders e.g. Canadian Journal of Nursing Leadership (Special Issue)
- Creating forums to share knowledge about EHR implementations e.g. Ontario Nursing Informatics Group
- Meaningful research

# Whittaker et al., 2009

- Qualitative study of the barriers to, and facilitators of electronic documentation in a rural hospital in the USA

	<b>Computer-related characteristics</b>	<b>Nurse-related characteristics</b>	<b>Contextual Characteristics</b>
<b>Facilitators</b>	Laptops can be taken to the bedside, reduces written documentation	Prior computer experience, adaptable, positive outlook	Availability of super trainers, manager support, staff supporting each other
<b>Barriers</b>	Laptops are slow, logon is time consuming, difficulty finding information, missing laptops, batteries dead	Poor time management skills, lack of computer experience, difficulty seeking help	Timing of training, too much information, dealing with physician related problems

# Nagle & Catford, 2008

1. Clear & Consistent Communication
2. Conduct a workflow assessment
3. Education must be centrally created
4. Nurses should have a number of different supports
5. Continual evaluation should take place



# Strudwick & Eyasu, 2015

- Additional recommendations:
  1. Clinical users should be involved in the procurement and implementation process
  2. Address issues of privacy and confidentiality \*\*

# Summary

- Nurses have had a variety of experiences using EHRs in mental health settings
- Challenges have both positive and 'less than positive' impacts on clinical practice
- Efforts are underway to better understand these challenges, and offer ways to improve nurses' experiences with the technology

# References

- Ammenwerth, E., Eichstadterm R., Haux, R., Pohl, U., Rebel, S., Ziegler, S. (2001). A randomized evaluation of a computer-based nursing documentation system. *Methods of Information in Medicine*, 40 (2), 61-68.
- Baillie, L., Chadwick, S., Mann, R., & Brooke-Read, M. (2012). Students' experience of electronic health records in practice. *British Journal of Nursing*, 21 (21), 1262-1264.
- Boyer, L., Samuelian, J., Fieschi, M., & Lancon, C. (2010). Implementing electronic medical records in a psychiatric hospital: A qualitative study. *International Journal of Psychiatry Clinical Practice*, 14 (3), 223-237.
- Canada Health Infoway. (2015). Clinical Interoperability. Available at: <https://www.infoway-inforoute.ca/en/solutions/clinical-interoperability>
- Canada Health Infoway. (2016). Progress in Canada. Available at: <https://www.infoway-inforoute.ca/en/what-we-do/progress-in-canada>
- Canadian Association of Schools of Nursing. (2014). Entry-to-practice nursing informatics competencies. Available at: <http://www.casn.ca/2014/12/casn-entry-practice-nursing-informatics-competencies/>
- Canadian Journal of Nursing Leadership. (2016). Current Issue. Available at: <http://www.longwoods.com/publications/nursing-leadership>
- Canadian Institute for Health Information. (2015). Care for Children and Youth with Mental Disorders. Ottawa. CIHI.

# References

- Edwards, K., Chiweda, D., Oyinka, A., McKay, C., & Wiles, D. (2011). Assessing the value of electronic health records. *Nursing Times*, 107(40), 12-14.
- Nagle, L., & Catford, P. (2008). Toward a model of successful electronic health record adoption. *Healthcare Quarterly*, 11 (3), 84-91.
- Ontario Nursing Informatics Group. (2016). Connecting practice, information and technology. Available at: <http://www.onig.on.ca/>
- Smetinin et al., (2011). Life and economic impact of hypothetical intervention scenarios on major mental illness in Canada: 2011 to 2041. Available at: [http://www.mentalhealthcommission.ca/English/system/files/private/document/MHCC\\_Life\\_Economic\\_Impact\\_Scenarios\\_FINAL\\_ENG\\_0.pdf](http://www.mentalhealthcommission.ca/English/system/files/private/document/MHCC_Life_Economic_Impact_Scenarios_FINAL_ENG_0.pdf)
- Stahl, Y., Grablund, M., Gare-Andersson, B., & Enskar, K. (2011). Views on health information and perceptions of standardized electronic health records among staff in child and school health services. *Journal of Nursing Management*, 19 (2), 201-208.
- Strudwick, G., & Eyasu, T. (2015). Electronic health record use by nurses in mental health settings: A literature review. *Archives of Psychiatric Nursing*, 238-241.