## Unintended Consequences of Informatics Initiatives



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#### **Outline**

- Research project structure
- Stories from the field





#### **Today's Objectives**

- Appreciation for the complexity of VCH Informatics Initiatives
- Greater understanding of how ICT unintended consequences impact patient care
- Raising participant awareness through shared experiences





#### Vancouver Coastal Health

- Pop served: 1,003,150 25% of BC residents
- Geographic area: ~ size of Nova Scotia
- Annual funding: \$2.1 Billion
- # of Staff: 24,500
- Hospitals: 14
- Facilities: 476 buildings; 556 locations
- First Nation Communities: 15
- # of Beds: 8,500 (acute, rehab and residential)
- Annual ED visits: 297,749
- Annual Cases/Discharge:73,988
- Annual same day surgical visits: 81,076
- Annual clinic visits: 619,412



Vancouver Coastal **Health Authority** BC STATS





#### **Systems Opportunity**

- IT is seen as a major driver to achieve the VCH strategic priorities of improved patient safety and quality of care
- Over 60 ICT initiatives in progress
- Increased understanding of complex system interdependencies → improved system efficiencies





#### **Proposed Methodology**

- Action research project
  - Semi-structured interviews
  - Focus groups
  - Ethnographic field research





#### What happens now

- Focus on technology not best practice
- Workflow analysis with limited reengineering of work practice
- Inadequate support for clinicians during or post change process
- Lack of buy-in to change process

Garbage in / Garbage out...





# Expected outcomes or... Iooking at the human factors

- Practice trumps technology
- ICT implementations transform practice





#### Research question

What can VCH learn from assessing the intended and unintended consequences of ICT implementations to better predict the determinants of successful ICT implementations?





# Stories of past ICT implementations ... setting the context







#### Stories of past ICT implementations

- Automated medication dispensing machines
  - Creative RN practice → unsafe med practices
- Wireless telephone linked to nurse call system
  - Improved communication
- Tablet PC's for home care RN's
  - No wireless infrastructure





### Capturing your experiences...

- What are the opportunities?
- What are the barriers?





# "Technology optimism means in practice the ability to recognize bad surprises early enough to do something about them"

Tenner, E. (1996). Why things bite back: Technology and the revenge of the unintended consequences. New York: Knopf.





## Thank you for your time!





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