Outcomes Measurement for Quality and Safety:

Pilot Demonstration Project

Professional Practice & Integration (PPI)

Barb Mildon, CNE and VP PPI

Pamela Thorsteinsson, Clinical Practice Consultant and Project Lead
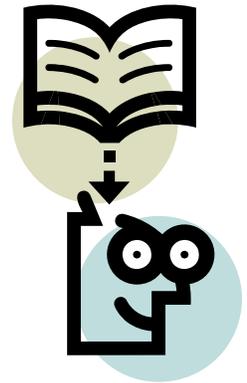
Bonny Amor, Project Coordinator

BRITISH COLUMBIA
The Best Place on Earth

fraserhealth
Better health.
Best in health care.

Objectives

- "HIF" Outcomes Measurement Project Overview
- Fraser Health participants – demographics
- Project Design
- Results: Patients/Clients and Nurses
- Key Findings
- Recommendations

Acknowledgement and Special Thanks to:

Fraser Health

- Professional Practice & Integration
- Information Technology
- Home Health & Acute Care:
  - **Directors/Managers/Team Leaders:**
    - **HH: Gail Harris, Jane Davis, Carl Meadows, Pavindeep Heer, Dawn Serek**
    - **AC: A*rden Krystal,* Theresa Guscotte, Wilma Mendieta**
  - **Nursing "super-users" and point of care nurses**

University of Toronto:

- Dr. Diane Doran
- Jenny Carryer
- Joan Almost

Ontario Ministry of Health:

- Peggy White
- Shannon Landry

Hinext (TREAT):

- Andrew Smith
- Teresa Janz

fraserhealth

Fraser Health, BC

Opportunity for Practice Improvement

- **Lack of information available re: nursing contributions to health care outcomes**
  - Paper-based documentation systems
  - MDS in Home Health (Case Managers), starting in Residential Care

- **Nursing-sensitive outcome data needed for**
  - Clinical decision making at point of care
  - Program planning
  - Staffing allocation

  - *"If we cannot name it, we cannot control it, finance it, or put it into public policy."*
    (Clark & Lang, 1992, cited in ICN, 2005, p. 3)

fraserhealth

BRITISH COLUMBIA
The Best Place on Earth

Building on Nursing Research

- NHOP study (Doran et al)

- PDA & CDST studies (Doran et al)

- HOBIC implementation across Ontario, pilots in Sask, & PEI (White et al)

Defining **nursing sensitive outcomes** as those that are "relevant, based on nurses' domain and scope of practice for which there is empirical evidence linking nursing inputs and interventions to the outcome"

(Doran, 2003)

fraserhealth

Project Objectives

To Explore the:

1. Ability of nurses to collect outcome data
2. Feasibility of collecting nursing sensitive   outcomes data from clients
3. Utility of the outcomes data to indicate the level of safety and quality of clinical care
4. Utility of the outcomes data in demonstrating the contributions of nursing care to the clinical outcomes of clients
5. Influence of the data on nurses' decision-making related to nursing interventions for clients
6. Feasibility of implementing incentive funding for improved outcomes

fraserhealth

Project Design

- **<u>Phase I</u>: establish human and technological infrastructure to collect data** (June '07 – Oct '07)
  - Establish participating sites: Acute Care, Home Health (2 of each)
  - Approved Software/Hardware: HOBIC/TREAT, mobile technology (laptop, PDAs, Tablets)
  - Tools for Remote Data Entry: VPN, Aircards
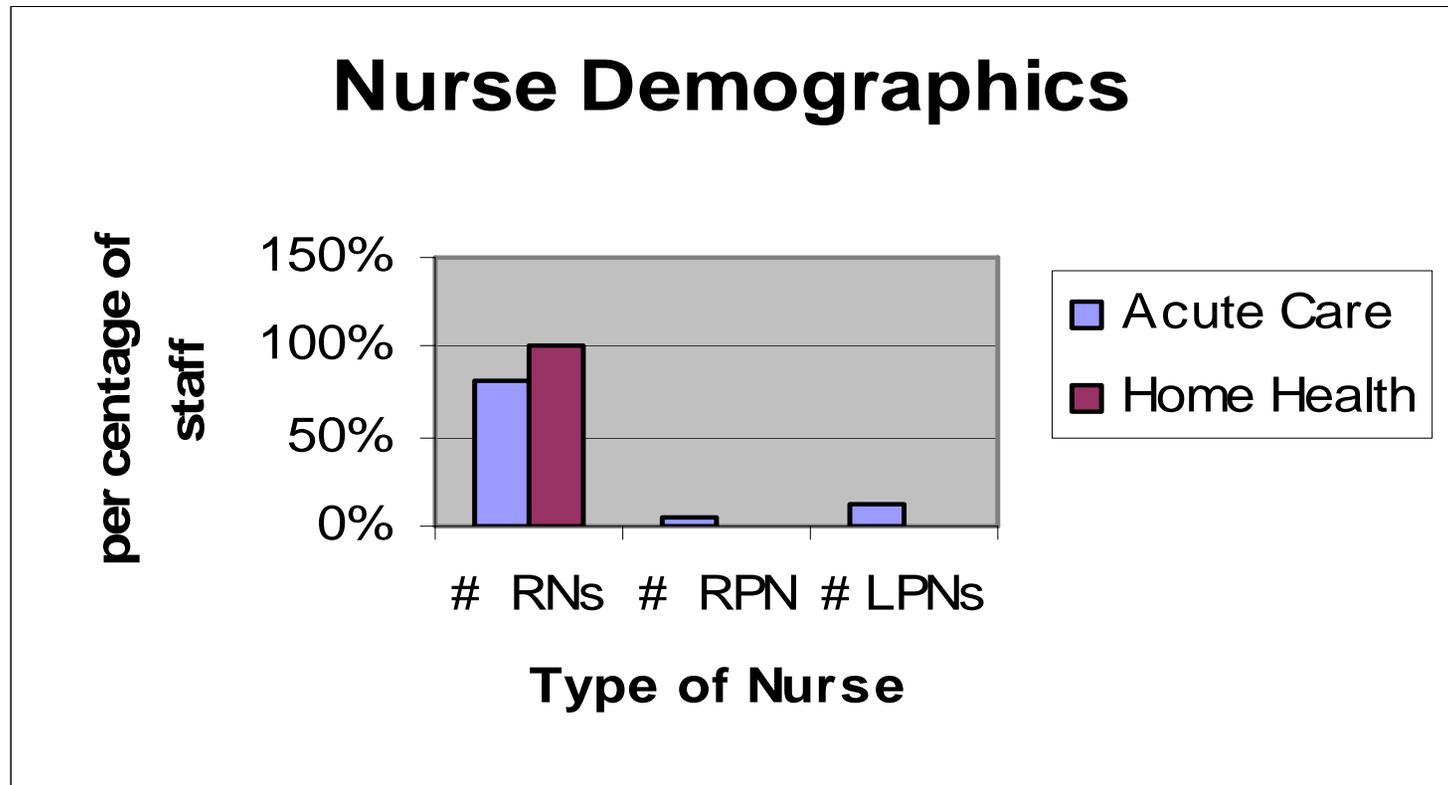 - Ethics Approval
  - Nursing Education

fraserhealth

- **Phase II:** **data collection and review, overall project review** (Nov '07 – Mar '08)
  - Nurse and Patient Consents
    - Patient sample: 30 to 60 per unit
    - Nurse sample:- ~ 25 per unit
  - Ongoing Nursing education and support
  - Patient Assessments, data entry and review
  - Pre and Post Nursing Questionnaires (adopted from NHOP)
    - Baseline and post-data collection
  - Nursing Focus Groups

fraserhealth

Fraser Health Participant Demographics

- <u>Nursing Data:</u> 59 nurses collecting data, **42 completing questionnaires**, **30 in focus groups**

Nurse Demographics

Chart — percentage of staff by Type of Nurse:
- # RNs: Acute Care ~80%, Home Health ~100%
- # RPN: Acute Care ~5%
- # LPNs: Acute Care ~12%

Legend: Acute Care, Home Health

X-axis: Type of Nurse
Y-axis: per centage of staff (0%, 50%, 100%, 150%)

Client Data

Consenting Clients:

Home Health:

HHB =	44
HHNW =	39
Total:	**83**

Acute Care:

Medical =	26
Surgical =	43 (invalid 7)
Total:	**69**

Total from all areas: 152

Patient Demographics

Number of Patients Assessed vs. Sector (Medical, Surgical, H.H. (Burnaby), H.H. (New Westminster))

Legend: # of Patients
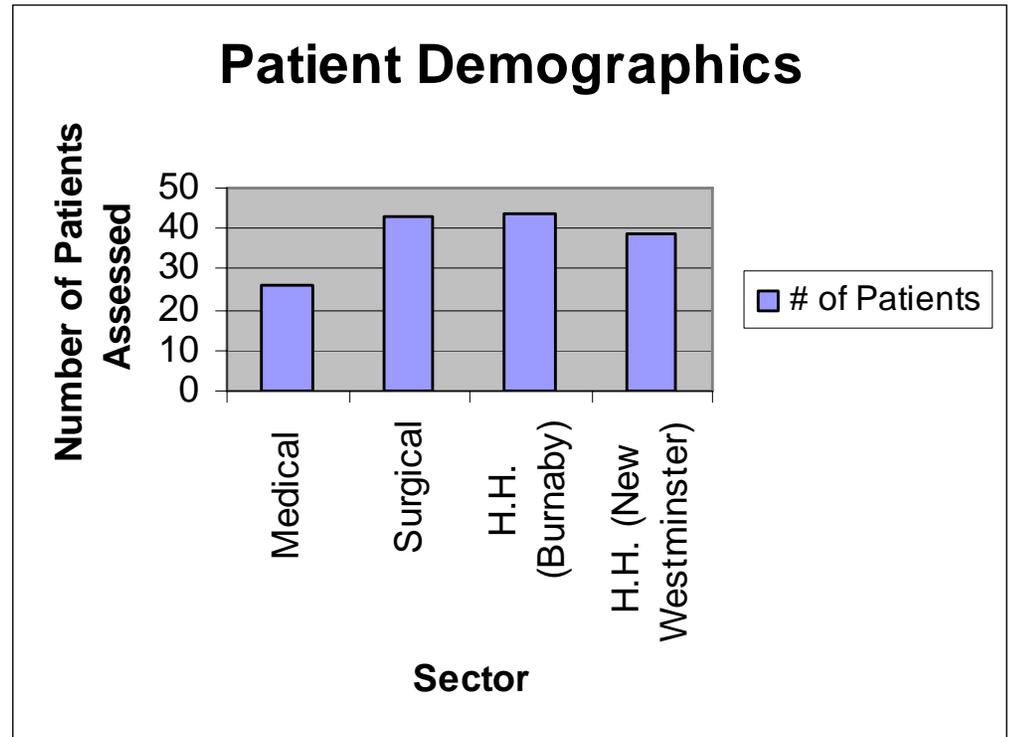
Client Health Conditions

Primary Diagnosis & Comorbidities Home Health

Legend:
- ☐ Home Health Primary Diagnosis
- ■ Home Health Co-Morbidities

Y-axis: % of cases (0 to 30)

X-axis (MCC & CMG Codes): Subcutaneous tissues, Other reasons (Palliatve care, infection), Musculoskeletal, Respiratory, Circulatory, Endocrine, nutrition and metabolic diseases, Kidney, urinary tract

fraserhealth
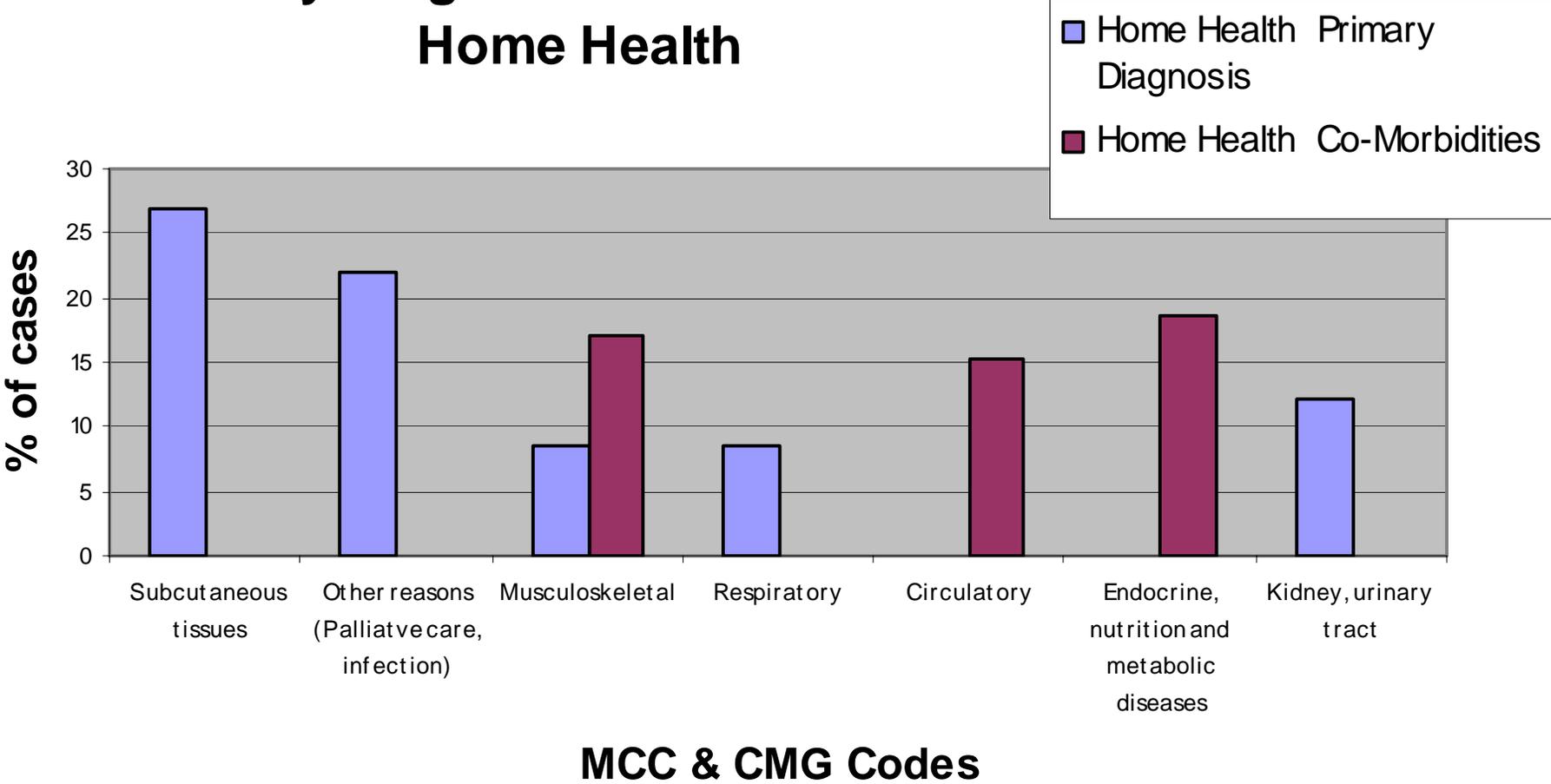
Key Findings

1. **Nurses able to collect data on paper and via computer**

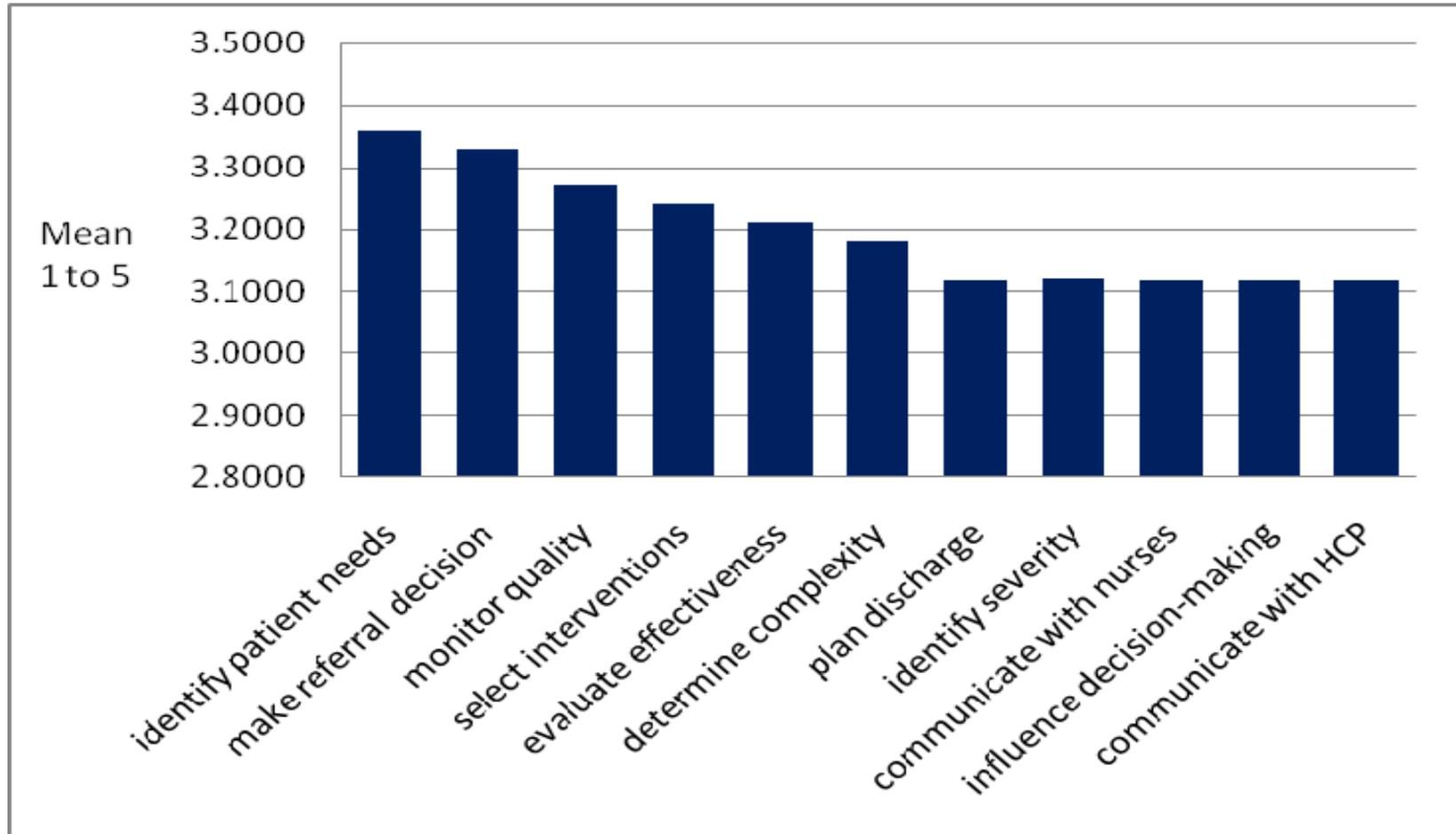   - Informatic infrastructure established, 100% baseline data collected and available

2. **Established feasibility of collecting outcome data on ongoing basis**

   - Assessment tool overall consistent with current practice

   - Limitations: nursing knowledge/comfort with electronic data entry, issues with computer access, nursing coverage

fraserhealth

Utility

In general, nurses found that the outcome indicators that were documented were most useful for:

Mean 1 to 5

Categories (left to right): identify patient needs, make referral decision, monitor quality, select interventions, evaluate effectiveness, determine complexity, plan discharge, identify severity, communicate with nurses, influence decision-making, communicate with HCP

fraserhealth

# 3. Utility of outcomes for safety & quality of care

- Functional status, symptoms and therapeputic self care statistically significant in acute care (pain only in HH)
- Pressure ulcer severity, # of falls tracking available
- Reported enhanced assessment scope
- Opportunities for communication across sectors

4. Utility of outcomes to demonstrate contributions of nursing care

- HOBIC measures consistent with goals of care (Acute Care > Home Health)
- Greater perception that outcomes reflected nursing care: improved, maintained client status

fraserhealth

Consistency with Nursing Goals

The outcomes being measured are consistent with nursing care goals on this unit
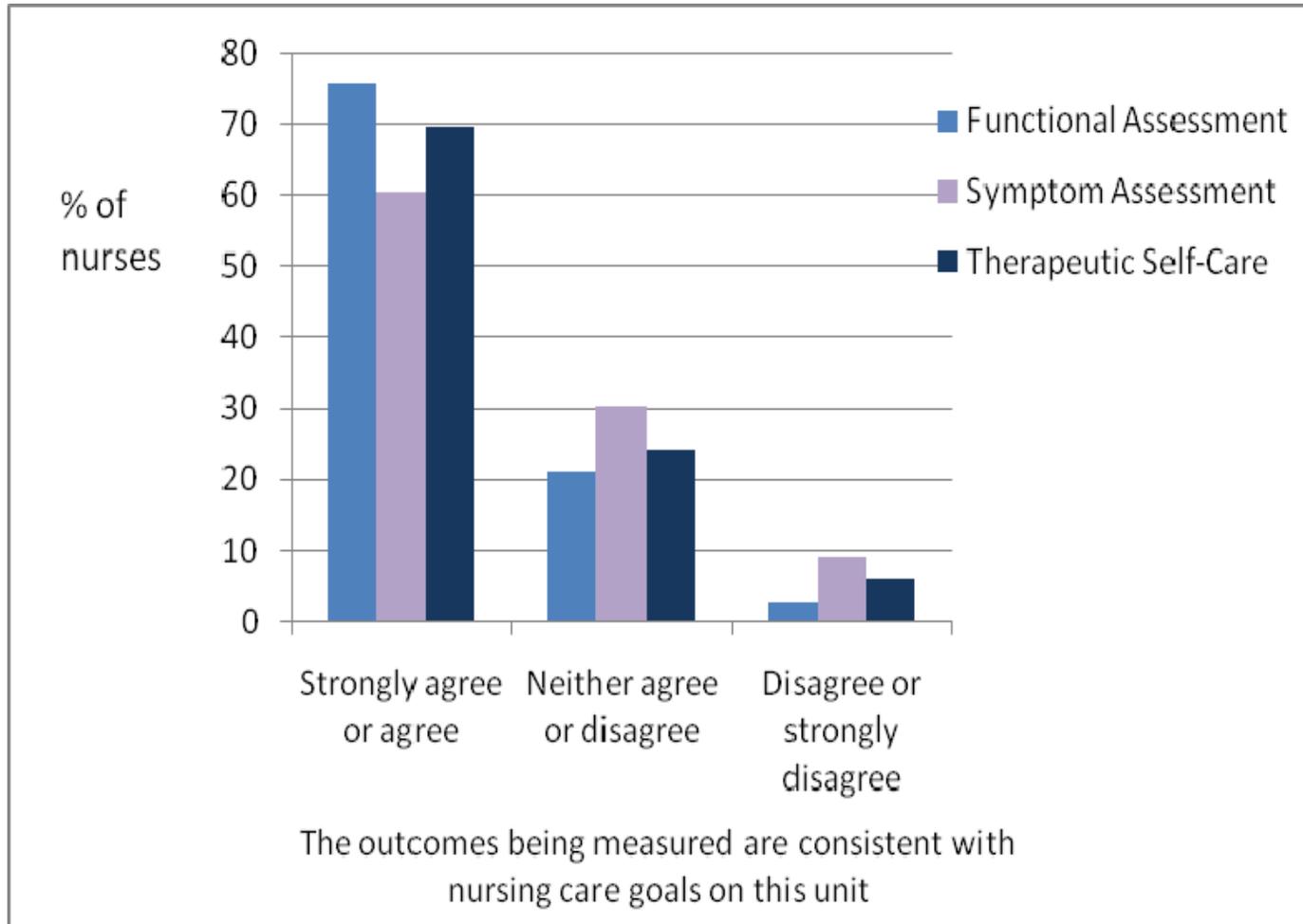
Key Findings – continued:

5. Influence on nursing decision-making

Mixed response: "already doing this" to "improved assessments and therefore interventions"

Limitations: more practice-specific tools needed

4. Feasibility of implementing incentive funding for improved outcomes

- Considerations re: defining "improved outcomes" given patient demographic/diagnostic variances, nursing:client ratios

fraserhealth

Recommendations

Technology

1. User-friendly computer access - rapid, easy access, reliable, preferably hand-held (i.e. PDAs)
2. Integration with documentation systems (e.g. ADT, Meditech, charting forms, etc.) and interface
3. **Data results available to nurses at point of care** to inform care delivery

Nursing Education

1. Protected scheduled education time
2. Super-user resource on units

Future Applications:

1. More practice-specific tools, embed Clinical Decision Support Tools into software
2. Access outcome data across sectors
3. Improved applications:
   - 24/7 data entry, required fields/drop-down boxes, prompts/links, nursing observation/comment capability

fraser**health**

References

- Ball, M.J., Weaver, C., & Abbott, P.A. (2003). Enabling technologies promise to revitalize the role of nursing in an era of patient safety. *International Journal of Medical Informatics, 69,*(1), 29-38.
- Bradley, C. (2004). Technology as a catalyst to transforming nursing care. *Nursing Outlook, 51*(3), S14-S15.
- Canadian Nurses Association. (2002, November). Position statement: Evidence-based decision-making and nursing practice. PS-63. Ottawa, ON: Author.
- Canadian Nurses Association. (2005). Nurse staffing: Collecting baseline patient outcome data should precede nursing staffing changes. [Research Summary]. Ottawa, ON: Author.
- Doran, D., Harrison, M.B., Laschinger, H., Hirdes, J., Rukholm, E., Sidani, S., McGillis HalL.,Tourangeau, A.E. & Cranley, L. (2006). Relationship between nursing interventions and outcome achievement in acute care settings. *Research in Nursing & Health, 29*(1), 61-70.
- Doran, D. (2004a). Final report to the ministry of health and long-term care – Technical: An evaluation of the feasibility of instituting data collection of nursing-sensitive outcomes in   acute care, long-term care, complex continuing care and home care. Toronto, Ontario: University of Toronto.
- Doran, D. (2004b). Collecting data on nursing-sensitive outcomes in different care settings: Can it be done? What are the benefits? *Report on the Nursing and Health Outcomes Feasibility Study.* Toronto, Ontario: University of Toronto.
- Doran, D. M., Mylopoulos, J., Kushniruk, A., Nagle, L, Laurie-Shaw, B., Sidani, S., Tourangeau, A.E., Lafebre, N, Reid-Haughian, C., Carryer, J., Cranley, L.A. & McArthur, G. (2007).
- Evidence in the palm of your hand: Development of an outcomes-focused knowledge translation intervention. *Worldviews on Evidence-Based Nursing, Second Quarter,* 69-77.
- McGillis Hall, L., Doran, D., Baker, G.R., Pink, G., Sidani, S., O'Brien Pallas, L., & Donner, G. (2003). Nurse Staffing Models as Predictors of Patient Outcomes. *Medical Care*, 41 (9), 1096-1109.
- Ontario Ministry of Health and Long Term Care. (2008). Health Outcomes for Better Information and **Care. Available on-line from** http://www.health.gov.on.ca/english/providers/project/nursing/nursing_mn.html
- White, P., Pringle, D., Doran, D. & McGillis Hall, L. (2005). The nursing and health outcomes project. *Canadian Nurse, 101*(9), 15-18.

fraserhealth