

# Screening Elderly in the ED: Evaluation of the interRAI Contact Assessment (ED)

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# Agenda

- About interRAI instruments
- Primary Care research
- interRAI-Contact Assessment (ED)
- Study design and preliminary findings
- Contributions of this research to nursing informatics

## About interRAI

- International consortium of researchers (26 countries)
- 45+ researchers
- Dr. John Hirdes and Dr. Katherine Berg are the two Canadian interRAI fellows
- Not-for-profit network
- Conducts multinational collaborative research to develop, implement and evaluate assessment instruments and related applications
- Goal is to contribute to an integrated health information system

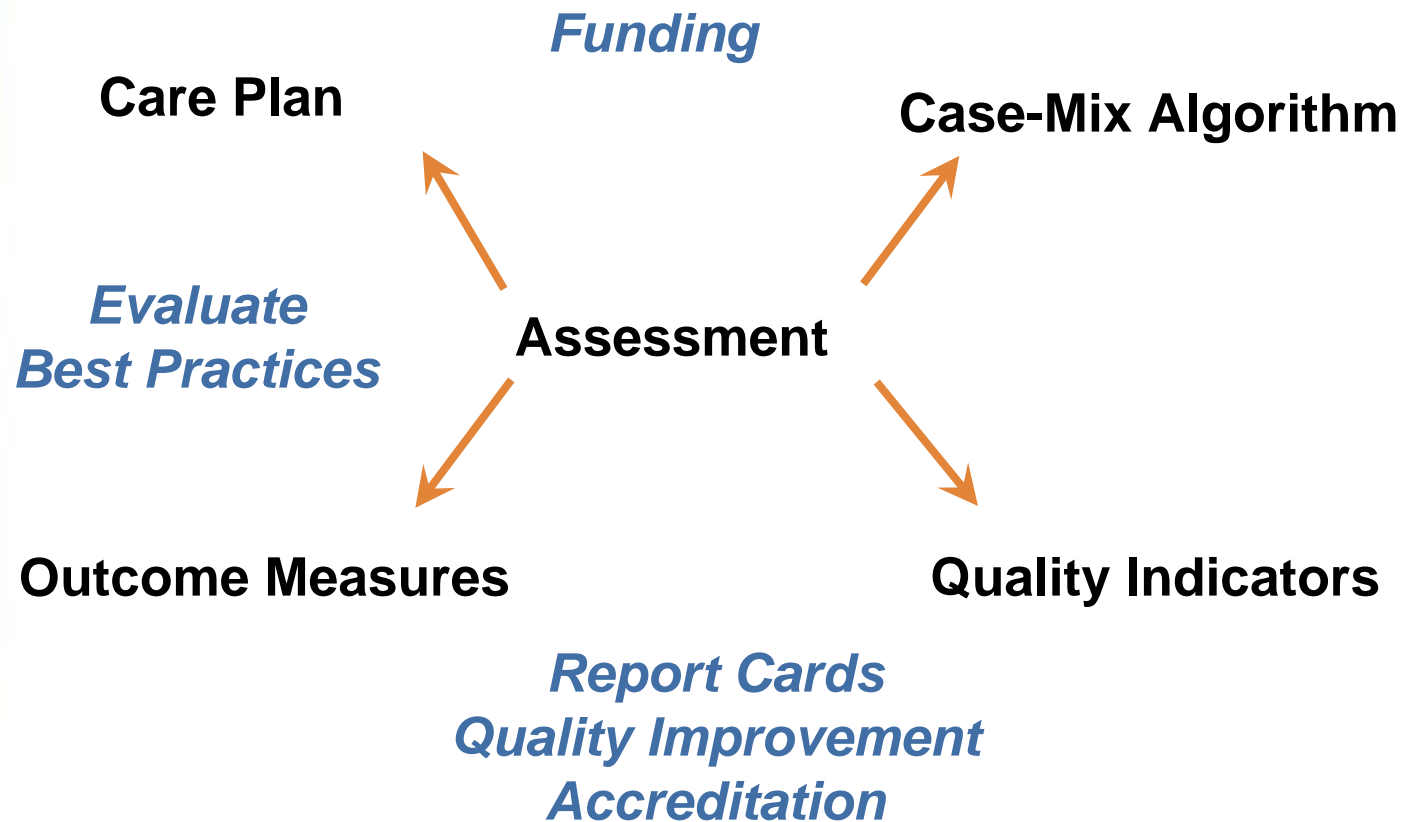
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# interRAI Series of Assessments

- Complex Continuing Care, Long Term Care
- Home Care
  - Intake Screener
- Mental Health
  - Community
  - Inpatient
  - Emergency Screener
  - Plug-in Modules
- Intellectual Disability
- Acute Care ED Screener
- Post-Acute Care-Rehabilitation
- Palliative Care
- Assisted Living
- Community Health Assessment

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# Applications of the interRAI Assessment Instruments



# Primary Care Transition Fund

**ideas** *for Primary Care*

\$1.86 M

**ideas** *for Mental Health*

\$1.6 M

“Enhancing the Use of interRAI  
instruments in Primary Care and  
Mental Health”

## *ideas for Primary Care* (\$1.86 million from PHCTF)

- **Co-investigators**

- UW/HRI – Hirdes (PI), Stolee, Arocha
- WLU – Fletcher
- UT – Doran
- Quality Health Council - Teare
- St. Mary's Hospital – Tjam
- interRAI – Fries, Morris, Berg
- Consultants – Cormack, Fisher
- Knowledge Exchange Board – Doran (Chair),  
Armstrong, McReynolds, Vanderbent, McLean,  
Clifford-Middell, Miles, Vaitonis

- **Time frame**

- Sept 2004-April 2006

## ideas for Primary Care

- Personal Health Profiles
  - Primary care clinicians
  - Home care provider agencies
- Testing community health assessment (interRAI-CHA)
  - Nurse practitioners & community health clinics
  - Community support agencies
- Evaluation of screening instruments for > 75 yrs
  - interRAI-Contact Assessment
    - CCAC intake
    - Primary care physicians
    - ED Screen + interRAI-AC



# Evaluation of screening instruments for > 75 yrs

- Evaluation of a common screening methodology/logic for ED, CCACs, and physicians
- Testing the interRAI self reliance algorithm;
- Personal hygiene
- Bathing
- Walking
- Dressing
- Cognitive skills
- All 3 screeners use the same logic to help identify key characteristics of need and risk of adverse outcomes (e.g., functional decline)

# Evaluation of screening instruments for > 75 yrs

- Short initial/intake assessment to support decision-making for point-of-entry to the health system (targeting referrals based on identified need)
- Three variations of the interRAI contact assessment for hospitals, CCACs, and primary care settings:
  - interRAI-Contact Assessment (ED)
    - tested in 7 EDs at time of triage
  - interRAI-Contact Assessment (Triage)
    - tested in 5 CCACs at intake
  - interRAI-Contact Assessment (Physician)
    - Tested with 8 Family practice physicians

## Screening Methodologies

(Compatible assessment, consistency in referral logic)

Community  
Support  
Agencies  
CHA

Acute Care

CA(ED) → AC

Flag referral to other services  
i.e CCAC

Physicians  
CA (Dr)

Nurse  
Practitioners  
CHA

# Value of screening

- Nurses can use for decision support related to:
  - Further in-depth assessment
  - Referral to specialized geriatric team or other referral
  - In patient care
  - Early Discharge planning
  - CCAC follow-up
  - Early detection of ALC patients

# Why do we need a screening instrument in ED?

- Elderly ( $\geq 75$  yrs) comprise increasing proportion of all ED encounters
- Elderly experience decreased health-related QOL and functional decline following ED visit
- ED is the ideal interface between acute hospital and community
- ED visit is a sentinel event, with potential risk for adverse health outcomes
- Elderly present with atypical and complex medical and psychosocial problems

*Sources: McCusker et al, 2003; Sinoff et al, 1998; Gold & Bergman, 1997; Mion et al, 2001; Hustey & Meldon, 2002; Hustey et al, 2003; Basic et al, 2002; McCusker et al, 1998; Miller et al, 1996*

# Why do we need a screening instrument in ED?

- Psychosocial or functional issues often not identified and/or addressed in ED setting
- Elderly spend a longer period of time in ED than non-elderly
- Elderly discharged from ED tend to have poorer short-term outcomes, with higher readmission and mortality rates

*Sources: McCusker et al, 2002; Sanders & Morley, 1993; Mion et al, 2001; McNamara et al, 1992; Singal et al, 1992*

## Development of interRAI-Contact Assessment (ED)

- Review of other screening tools
  - TRST, ISAR, other items identified by focus groups and researchers
- First draft based on interRAI items, including Self Reliance Index
- Focus Group of Geriatric Emergency Management (GEM) Nurses provided consensus on items for pilot version
- Restricted item set to reduce time to complete
  - Initial results show it takes about 15 minutes to administer



## Major Applications of ED Screening (identified by GEM Nurses)

- Standardized approach to identify needs and improve management of acute/emergent conditions
- Screening and Risk assessment
  - ED visits, hospitalization, long-term care admission, functional decline, ALC
- Decision support
  - Improved clinical decision making for elderly with complex care needs



## Major Applications of ED Screening (identified by GEM Nurses)

- Referrals for Comprehensive Geriatric Assessment
  - Who most likely to benefit?
- Administrative Tracking
  - Case mix, disposition, outcomes
- Communication
  - Internal departments
  - Other sectors using interRAI instruments (e.g., CCAC)

# interRAI-Contact Assessment (ED) Study Design

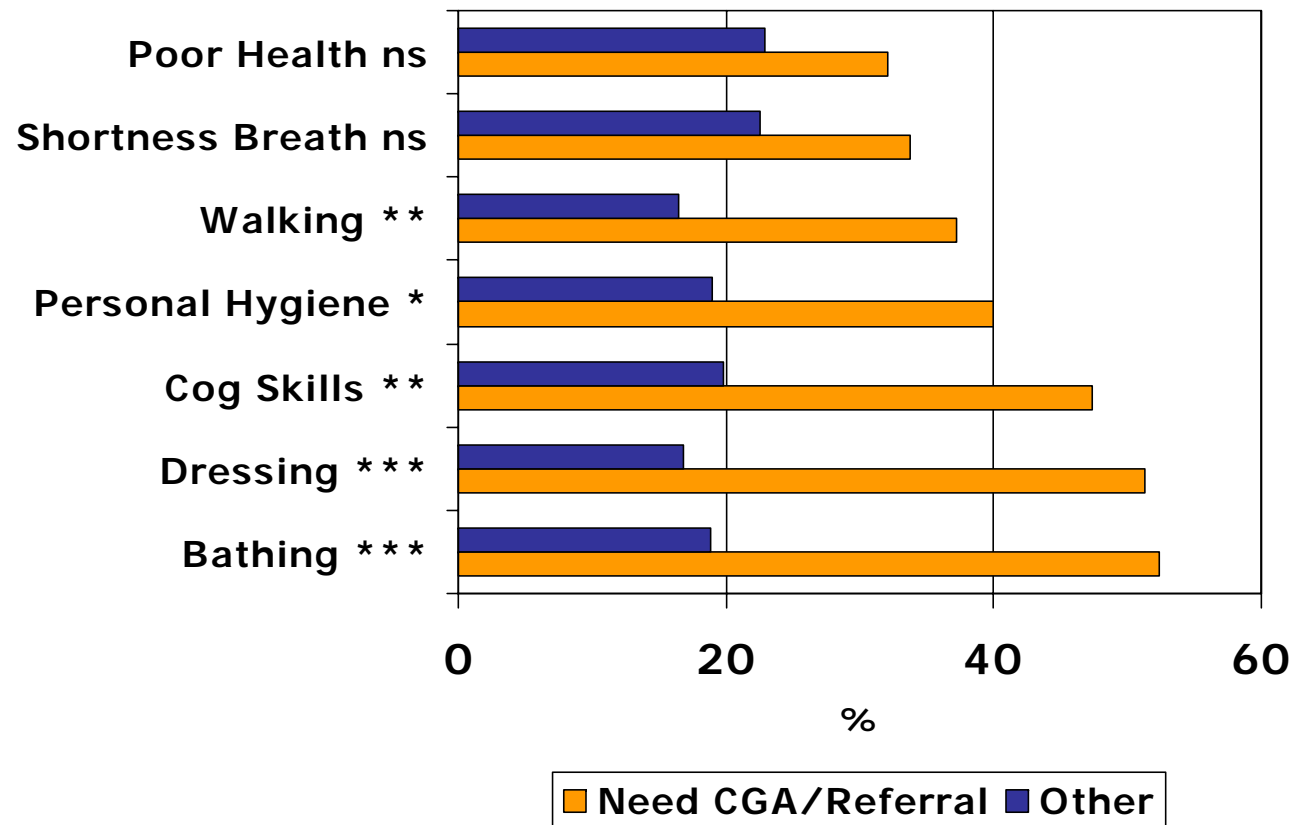
- Sample

- Planning for 10 acute hospital sites in ON
- 120 elderly patients (75+) in each ED will be screened by nurses trained on the interRAI-ED
- Pilot implementation as part of normal clinical practice
  - no consent required for screening tool
- Patients admitted to a medical or surgical unit receive more in-depth assessment using interRAI-Acute Care tool
  - consent required for AC assessment
  - Follow-up tracking for discharge disposition and date
- Target sample
  - 1,200 patients to be screened in ED
  - 500 interRAI-AC assessments

# Site Recruitment

- Information packages sent out to 52 hospitals around the province
- Need hospitals that have an ED, including community hospitals and those with particular initiatives for the elderly (e.g., GEM)
- Unique challenges in recruitment
  - 5 hospitals in study to date (Cambridge Memorial, St. Mary's (Kitchener), Peterborough Regional Health Centre, Grey-Bruce Health Centre, St. Joseph's (Toronto))
  - Continuing to look for more sites

## Percentage of ED Patients Age 75+ Rated as Requiring a Comprehensive Geriatric Assessment or Referral to CCAC



\* -  $p < .05$ ; \*\* -  $p < .01$ ; \*\*\*  $p < .0001$

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## Mean (95% CLM) Age, Number of Medications and Self-Rated Depression by Need for CGA or CCAC Referral

	Need CGA or CCAC Referral	Other
Age (years)	82.6 (81.1-84.1)	81.8 (80.9 – 82.6)
Number of Medications	5.6 (4.6-6.6)	5.2 (4.7-5.7)
Self-Rated Depression Scale	1.3 (0.7-2.0)	0.9 (0.6-1.23)

# Contributing to Clinical Informatics

- Improved communications across sectors-continuity of care
  - Compatible assessment and screening methodology based on interRAI instruments
- Standardized → facilitates eHealth
  - Ability to complete interRAI screening instruments/assessments on PDAs/tablet PCs at point of care
- Scientifically derived algorithms
  - Decision support

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# Ideas for Primary Care

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