Measuring the quality of long-term care in institutional and community settings

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What is long-term care?

- Variety of ongoing health and social services
- For individuals needing assistance on a continuing basis because of physical or mental disability
- Services provided in an institution, the home, or community
- Includes both informal and formal services

(Institute of Medicine, 1986)
Why is LTC difficult?

- Difficult to draw line between public and private responsibility
- Services require a mix of health and social services
- Governments are already burdened by pension and health care programs
  - reluctant to start a new entitlement program
Why should governments take on responsibility for LTC?

- Increasing demand for formal services:
  - Ageing society, decline in family support available
- Distortions and fiscal strains in health, social and housing programs
- Unfair allocation of limited LTC formal services
- Need for an equitable and efficient publicly funded LTC program
How to ensure equitable access

• Need to establish equitable and affordable entitlement standards for publicly funded LTC services
  – Fairness in access: First criterion of quality
  – An assessment instrument for evaluating need
    • Reliability essential: Amount of resources may depend on how the patient is evaluated in one key assessment item
  – Explicit guidelines or algorithm for allocating services
  – Training staff to appropriately use the instrument
  – Formal mechanisms for monitoring program
• Policy makers must decide on levels of entitlement, researchers can provide evidence-based options
Measuring quality of LTC services

- “Tender loving care”
  - As close to that given by family members
- Standards set by the service industry
  - Friendliness of staff, clean room
- Traditional standards of quality
  - Staffing levels in institutional settings
  - Professional qualifications of staff
- Professional standards of quality
  - Slowing rates of decline, improving quality of life
The development of the RAI

- Need for a uniform, comprehensive resident assessment system
- For care planning of residents, and monitoring of quality by the government
- RAI (Resident Assessment Instrument) implemented in United States in 1991 and required for virtually all nursing homes
- Also mandated in Iceland, two provinces of Canada
- Translated and validated in over 21 countries
Structure of the RAI system

MDS
(Minimum Data Set)
Comprehensive standardized assessment items

TRIGGERS
Items identified as problems or potential problems

RAPS
(Resident Assessment Protocols)
Guidelines to direct assessor through best practice in developing a care plan
Resident Assessment Protocols

<table>
<thead>
<tr>
<th>Delirium</th>
<th>Cognitive Loss/Dementia</th>
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</thead>
<tbody>
<tr>
<td>Visual Function</td>
<td>Communication</td>
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<tr>
<td>ADL Functional/Rehabilitation</td>
<td>Urinary Continence/Catheter</td>
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<td>Psychosocial Well-being</td>
<td>Mood State</td>
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<td>Behaviour Problems</td>
<td>Activities</td>
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<td>Falls</td>
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<td>Feeding Tubes</td>
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<td>Dental Care</td>
<td>Pressure Ulcers</td>
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<tr>
<td>Psychotropic Drug Use</td>
<td>Physical restraints</td>
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</tbody>
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Morris et al (1996)
interRAI

• What is it?
  – international group of 40+ researchers and clinicians (mainly MDs and PhDs)
  – registered as not-for-profit corporation
  – owns international rights to RAI/MDS instruments

• What does it do?
  – Conducts multinational collaborative research to develop, implement and evaluate the RAI/MDS instruments and their related applications
interRAI Countries

Nordic Countries
- Iceland, Norway, Sweden, Denmark, Finland

North America
- Canada
- US

Europe
- Netherlands, Germany, Switzerland, France, UK
- Italy, Spain, Czech Republic, Estonia*

Middle East
- Israel

Pacific Rim
- Japan, South Korea, Taiwan, Hong Kong
- Australia, New Zealand*

* Blue indicates countries with projects underway in collaboration with interRAI Fellows
The development of the RAI-HC

• Developed by interRAI in 1996 (updated 1999)
  – Tested in multiple countries before completion
• Broader in scope compared with institutional care
  – Role of informal support, elder abuse
  – IADL (Instrumental ADL: preparing meals etc.)
  – Adherence to care, environmental factors
• Assessment form shorter in length
• More reliance on second level 30 CAPs
The use of the RAI-HC

• CAPs provide opportunities for cross-training and self-education
  – Those providing services in the community are alone
  – Greater need to cover both health and social services
• MDS and MDS-HC share core assessment items
  – Possible to track individuals between the two
• RAI-HC translated and validated in over 10 countries
  – Implemented in 9 US states
  – 5 Canadian provinces expected to implement
  – Most widely used assessment instrument in Japan
  – EU 5th Framework study in 11 EU countries
Quality Indicators based on MDS data

• Indicators to evaluate care based on:
  – Process of care
    • Polypharmacy, restraint use, indwelling catheters
  – Outcome of care
    • New fractures, increase in cognitive impairment

• 24 Quality Indicators calculated from the MDS data of each facility
  – No need to collect new data for evaluating quality

• Quality indicators’ rates compared among facilities
  – Strengths and weaknesses of each facility made clear
Examples of MDS Quality Indicators

• **Outcome QIs**
  – Prevalence of falls
  – Prevalence of problem behavior toward others
  – Incidence of cognitive impairment

• **Process QIs**
  – Use of 9+ scheduled medications
  – Prevalence of daily physical restraints
  – Prevalence of indwelling catheters

• **Combined QIs**
  – Prevalence of occasional/frequent bladder/bowel incontinence with no toileting plan
  – Insulin-dependent diabetes with no foot care

• **Other QIs**
  – Prevalence of tube feeding
  – Prevalence of little or no activity
Conditions that must be met for measuring quality in LTC

- Reliable and valid standardized assessment instruments
  - RAI and RAI-HC have been tested in many countries
  - Designed for clinical and administrative use
- Methodology for interpreting data
  - New Quality Indicators provide benchmarks
- Databases of the assessment information
  - More efficient if also used for payment purposes
  - Possible to track individuals across sectors
- Training of clinicians and administrative staff
Prevalence of Stage 1-4 Pressure Ulcers by Risk Status, Ontario, 1998-9

(Source: Teare et al., 2000)
Prevalence of Antipsychotic Use in Absence of Psychotic Conditions by Risk Status, Ontario, 1998-9

(Source: Teare et al., 2000)
Prevalence of Tube Feeding by OHA Region, FY 97/98 & 98/99

(Source: Teare et al., 2000)
Radar Plot of Percentile Ranks by Quality Indicator, Facility C, 1995
Prevalence of Daily Restraint Use by Cognitive Impairment and Disability

(Source: Hirdes et al., 1999)
interRAI’s Prevalence-based Home Care Quality Indicators

• Nutrition
  – Inadequate Meals
  – Weight Loss
  – Dehydration

• Medication
  – No medication review

• Physical function
  – No Assistive Device Among Clients with Difficulty in Locomotion
  – ADL/Rehabilitation Potential & No Therapies

• Psychosocial function
  – Social Isolation w/ Distress
  – Delirium
  – Negative mood

• Pain
  – Disruptive/Intense Pain
  – Unmanaged Pain

• Safety/Environment
  – Falls
  – Any injuries
  – Neglect/Abuse

• Other
  – Not Receiving Influenza Vaccination
  – Hospitalization
interRAI’s Incidence-based Home Care Quality Indicators

- **Incontinence**
  - Failure to improve/ incidence of bladder continence

- **Ulcers**
  - Failure to improve/ incidence of skin ulcers

- **Physical function**
  - Failure to improve/ incidence of decline on ADL long form
  - Failure to improve/ incidence of impaired locomotion in the home

- **Psychosocial function**
  - Failure to improve/ incidence of cognitive decline
  - Failure to improve/ incidence of difficulty in communication
Prevalence HCQIs by CCAC, Ontario (n=2963)
The RAI Family of Instruments

- Chronic care/nursing homes
  - RAI 2.0
- Home Care
  - RAI-HC2
- Mental Health
  - RAI-MH2
- Assisted Living
  - RAI-AL
- Acute Care
  - RAI-AC
- Post-Acute Care-Rehabilitation
  - RAI-PAC
- Palliative Care
  - RAI-PC
- interRAI Screener
Where can I get more information?

- www.interrai.org
- Canadian Journal on Aging, Special interRAI Issue, December 2000
- Age and Ageing, Special interRAI Issue, September 1997