interRAI Assessment Instruments as Part of Health and Social Service Information Systems

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Agenda

• Integrated health and social service information systems
• Canadian Experience with interRAI instruments
• Examples of applications of system level perspective
  • Population level needs
  • Understanding and managing transitions
Why do we need to think at the system level?

- People with comparable needs receive services in different sectors of the health and social services system
  - Especially true for persons with complex needs
    - Elderly
    - Persons with mental illness
    - End of life care

  - System-level implication:
    - May be able to fine-tune who gets what services where

  - Person-level implication:
    - Must deal with multiple providers
    - Continuity of care important
Why do we need to think at the system level?

• Changes in one part of the system will affect other parts of the system
  • ↓ acute hospital LOS ↑ acuity of post-acute home care clients

• Pressures in one part of the system might be reduced by changing another part
  • Increasing the capacity of home care and supportive housing to serve high needs may
    • Allow more seniors to avoid LTC placement
    • Reduce demands on LTC bed supply
      But it will also increase LTC case mix
Examples of Cross-Linkages in Health Care

- **Mental Health**
  - 58% of inpatients in contact with community mental health in last year
  - 67% of community mental health clients have 1+ lifetime admissions to inpatient psychiatry

- **Home Care**
  - 43% of long stay clients were in hospital in last 90 days
  - 25% used ED in last 90 days

- **Complex Continuing Care Hospitals**
  - 80% admitted from acute care
  - 19% discharged home with home care
  - 20% discharged to nursing home

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www.interrai.org
The interRAI Family of Instruments

- Home Care
  + Contact Assessment

- Complex Continuing Care Hospitals, Nursing Homes

- Acute Care
  + ED Screener
  + Post Acute supplement

- Mental Health
  • Inpatient
  • Community
  • Emergency Screener
  • Forensic Supplement
  • Correctional Facilities
  • Brief Mental Health Screener

- Intellectual Disability

- Palliative Care

- Post-Acute Care-Rehabilitation

- Community Health Assessment
  • AL supplement
  • Functional supplement
  • MH supplement
  • Deafblind supplement

- Subjective Quality of Life
  • Mental Health
  • Home and Community Care
  • Long Term Care
Implementation & Testing of interRAI Instruments

Solid symbols – mandated or recommended by govt; Hollow symbols – research/evaluation underway

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What Makes the interRAI Instruments an Integrated System?

- Common language
  - consistent terminology across instruments
- Common theoretical/conceptual basis
  - triggers for care plans
- Common clinical emphasis
  - functional assessment rather than diagnosis
- Common data collection methods
  - professional assessment skills
  - clinical judgment of best information source
- Common core elements
  - some domains in all instruments (e.g., ADL, cognition)
- Common care planning protocols
  - for sectors serving similar populations
Cross-sector Comparisons
Integration through:
Compatible assessment systems across settings

Community

- Community Support/Assisted Living
- Primary Care
- Community Mental Health
- Home Care Providers
- Community Care Access Centre
- Inpatient Psychiatry
- Palliative Care
- Emergency Department
- Acute Care
- Long-term/Continuing Care

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What should be the “shape” of the health care system? Distribution of the Cognitive Performance Scale in Various Care Settings

- Community Palliative Care
- Long-stay Home Care
- Acute Care (75+)
- Community Mental Health
- Acute Psychiatry (65+)
- Psychiatry - Older Szp
- Psychiatry - ID
- Geriatric Psychiatry (Non-szp)
- Long Term Care
- Complex Contg Care (Existing)
## Number of Persons Assessed by Age Group, Ontario, CCAC Clients and CCC Patients

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<tr>
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<tbody>
<tr>
<td>65-69</td>
<td>8,229</td>
<td>6,623</td>
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<tr>
<td>70-74</td>
<td>1,413</td>
<td>1,108</td>
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<tr>
<td>75-79</td>
<td>2,264</td>
<td>1,635</td>
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<td>80-84</td>
<td>2,995</td>
<td>1,829</td>
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<td>85-89</td>
<td>2,325</td>
<td>1,499</td>
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<td>90-94</td>
<td>1,271</td>
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<td>95-99</td>
<td>3,078</td>
<td>2,115</td>
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<tr>
<td>100-115</td>
<td>483</td>
<td>298</td>
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</table>
Prevalence of Depressive Symptoms (DRS 3+) by Care Setting, Ontario

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Receipt of Antidepressants Among Persons with DRS 3+ by Age and Care Setting, Ontario

- CCC Patients (1996-2004)
Transitions Along the Continuum of Mental Health Care
Integration through:
Management of transitions between settings

Community

- Community Support/Assisted Living
- Primary Care
- Community Mental Health
- Home Care Providers
- Community Care Access Centre
- Inpatient Psychiatry
- Palliative Care
- Emergency Department
- Acute Care
- Long-term/Continuing Care
Integration through:
interRAI Instruments and Decision-support Systems
Prevalence of mental health issues by province, setting, and admission source

<table>
<thead>
<tr>
<th>Mental Health Issue</th>
<th>Ontario CCC (%)</th>
<th>Ontario LTC (%)</th>
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<tbody>
<tr>
<td></td>
<td>From Psychiatry</td>
<td>General</td>
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<tr>
<td>Hallucinations</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>9.9</td>
<td>3.8</td>
</tr>
<tr>
<td>Delusions</td>
<td>18.7</td>
<td>4.4</td>
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<tr>
<td>Aggressive Behaviour Scale</td>
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<td></td>
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<tr>
<td>0</td>
<td>47.2</td>
<td>76.0</td>
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<tr>
<td>1-4</td>
<td>31.3</td>
<td>19.5</td>
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<tr>
<td>5+</td>
<td>21.5</td>
<td>4.5</td>
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<tr>
<td>Depression Rating Scale</td>
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<td></td>
</tr>
<tr>
<td>0-2</td>
<td>55.6</td>
<td>78.5</td>
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<tr>
<td>3-5</td>
<td>26.0</td>
<td>14.9</td>
</tr>
<tr>
<td>6+</td>
<td>18.4</td>
<td>6.6</td>
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</table>
### CCC patients discharged to

<table>
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<tr>
<th>Discharged to ...</th>
<th>General CCC Admissions</th>
<th>CCC Admitted from Psychiatry</th>
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<tbody>
<tr>
<td>Home no home care</td>
<td>10.0</td>
<td>10.5</td>
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<tr>
<td>Home care</td>
<td>17.6</td>
<td>9.5</td>
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<tr>
<td>LTC Home</td>
<td>19.8</td>
<td>29.3</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>0.2</td>
<td>4.7</td>
</tr>
<tr>
<td>Dead</td>
<td>33.4</td>
<td>22.6</td>
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</table>
Discharge to Psychiatry from CCC, Ontario
Controlling for age, psychiatric diagnosis, cognition, hallucinations and delusions

![Graph showing odds ratios for aggressive behaviour and depressive symptoms between male and female subjects.](chart.png)
Transitions Between Care Settings: Aggressive Behaviour Among New Admissions to Inpatient Psychiatry, ON 2005-7
Concluding comments

• Responding to population aging depends on the availability of population level data

• The interRAI family of instruments provide an integrated information system that lets us identify and respond to the complex needs of vulnerable populations across all sectors of the health social services system
Thank you!

Questions? Comments?