The Use of interRAI scales- ways of summarizing interRAI data

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Multiple ways of Summarizing Assessments

CAPS: Clinical Assessment Protocols - care and service planning

Scales: Prognosis, outcome monitoring

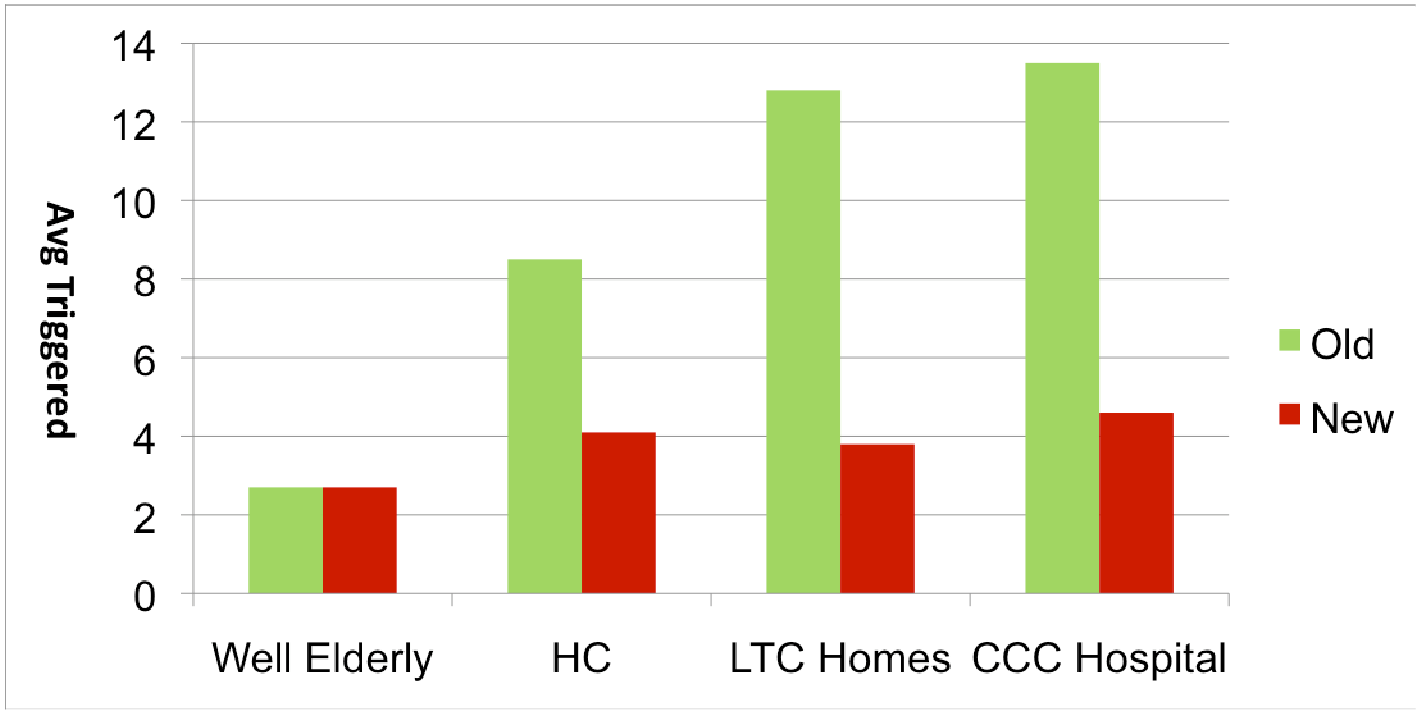
RUGs: Resource utilization groups – intensity of services-staffing and payment

Quality indicators (Qis): performance of an organization/facility over time

Clinical Assessment Protocols (CAPS)

- 6 Functional performance CAPS eg ADL, IADL and physical activity
- 6 Cognition/mental health CAPS eg delirium, mood
- 3 Social life CAPS eg social relationships
- 12 Clinical issues CAPS eg falls, pain, medications

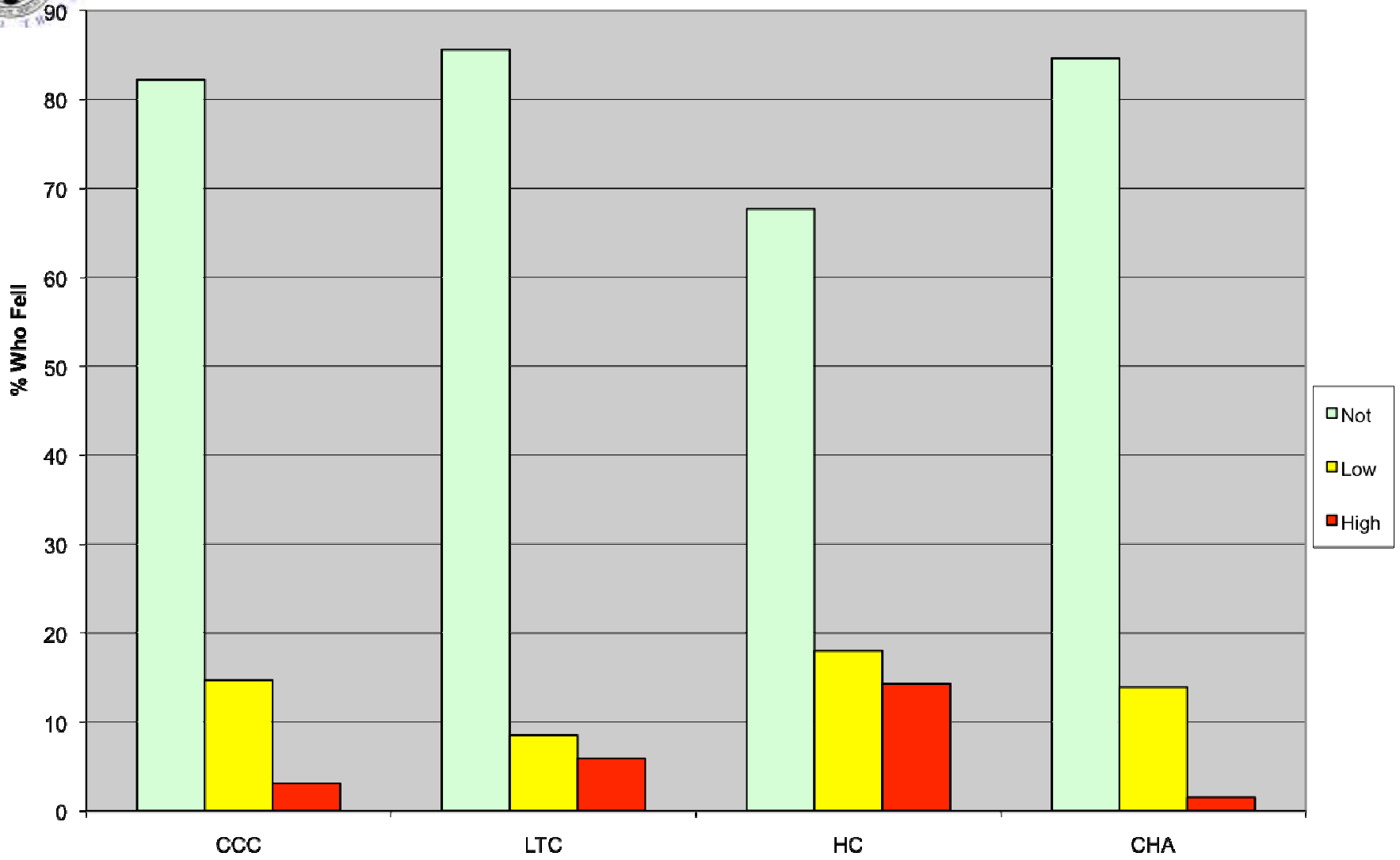
Rates of CAPs Triggered by Service Setting



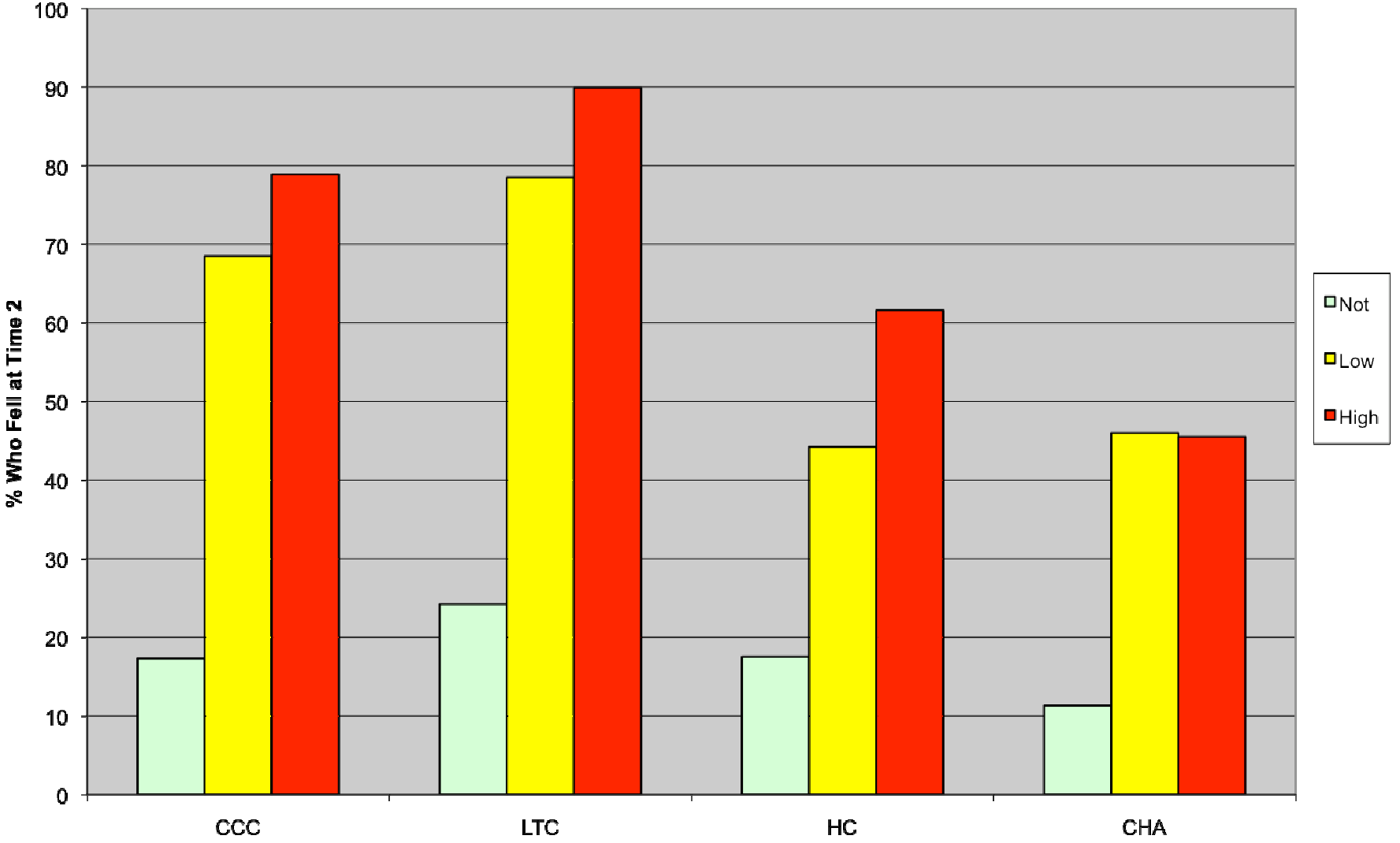
“triggered” CAPS require action

- Patients/residents may have multiple problems
- CAPS identify areas where action is needed
- Evidence exists for benefit in terms of improvement or prevention
- Help guide service planning decisions
- Multiple areas may share risk factors

Distribution of Fall risk Groups across settings



Percentage within Fall Risk Groups Who Fall at Time 2



Interaction with other CAPS

- Common risk factors
- Common potential interventions
- Physical Activity promotion
- ADL
- IADL

ADL, IADL and Physical Activity

Non-fall triggered:

- CCC: 72.1 % of persons trigger ADL CAP
- LTC: 78.4% trigger ADL CAP
- HC: 57.1% trigger 1 or more of ADL,IADL and Physical Activity

Conclusion

- New Fall Cap identified those at highest risk – action required
- Full array of CAPS including medications, vision, ADL, IADL, physical activity offer potential to address shared risk factors for falls
- Greater specificity helps focus the interventions and choose best outcomes for monitoring

interRAI scales

- Embedded in the assessments
- Core items are common to all interRAi assessments
- Shorter and longer versions exist in different settings
- Permit comparison across settings
- Reliability of items, scales – very good agreement

Adl long form

Total score 0-28

- Original reference: **Morris, Fries, Morris. Scaling ADLs Within the MDS. Journal of Gerontology: Medical Sciences 54A(11): M546-M553,1999**
- Criterion validity: strongly correlated with FIM, and Barthel scores

ADL Long Form Responsiveness

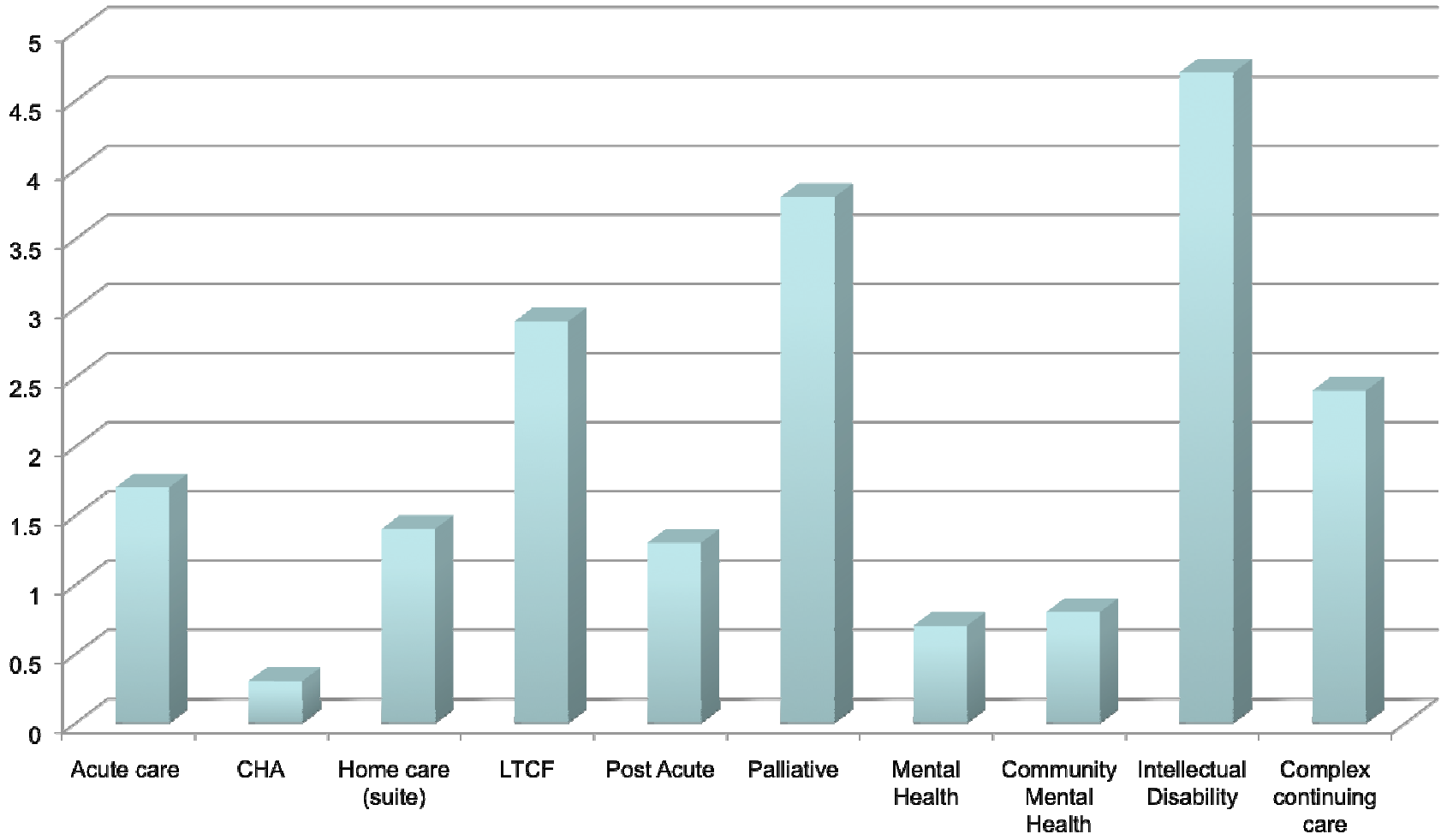
- Detect differences in patients who received home care by PT or OTs- after 6 months
- Large degrees of improvement in post-acute care (effect size comparable to FIM change scores)
- Detect decline in physical function in cognitively impaired nursing home residents (Carpenter et al BMC 2006)

	ADL Scales					
	Short (0-16)		Long (0-28)		Hierarchy (0-6)	
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*
Acute Care Premorbid	3.0	5.1			1.3	2.0
Acute Care Admission	6.1	5.9	8.0	7.5	2.2	1.9
Post Acute Care (suite)	4.2	4.0	8.1	7.3	2.2	1.8
Community Health (CHA)	0.0	0.5	0.1	0.7	0.0	0.3
Complex continuing Care	9.7	5.0	17.3	8.8	3.8	1.8
Home Care (HC)	2.0	3.7	3.8	6.5	1.0	1.5
HC (suite)	2.4	3.7	5.3	7.6	1.2	1.6
Long Term CareFacility (suite)	8.0	5.2	14.0	9.0	3.5	1.9
LTC- Ontario	9.2	5.2	16.5	9.3	3.5	1.8
Palliative Care (suite)	12.2	5.4			4.7	1.9
Mental Health (at admission)	0.7	2.3			0.4	1.0
Community Mental Health	0.3	1.5			0.2	0.8
Intellectual Disability	9.2	5.5			3.8	1.7

CPS Validation

- Criterion validity- strong relationship with:
- MMSE (Mini Mental State Exam)
- Test for Severe Impairment
- Nursing judgments of disorientation
- Neurological diagnoses of Alzheimer's disease and other dementias.

CPS

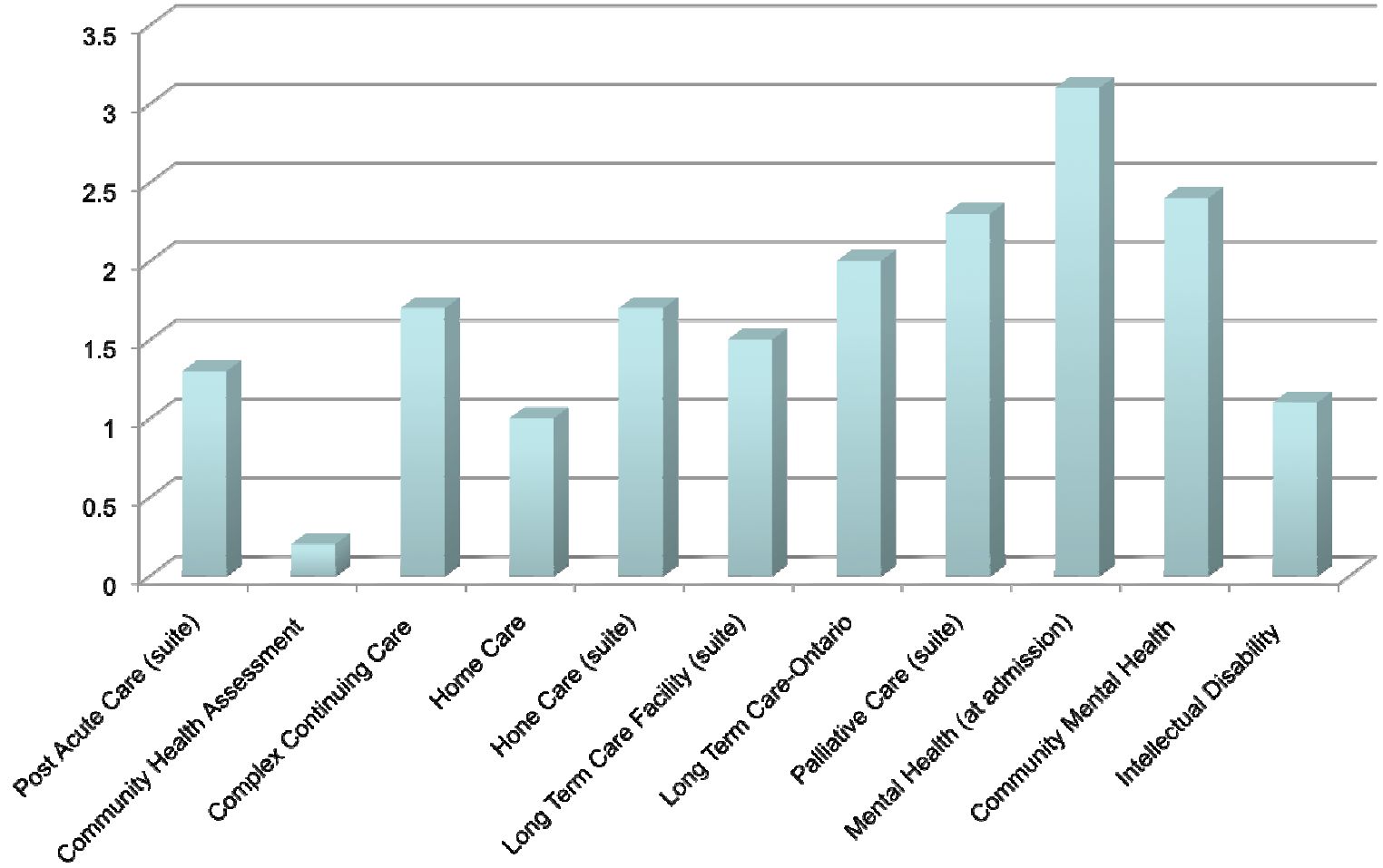

5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
Acute care
CHA
Home care (suite)
LTCF
Post Acute
Palliative
Mental Health
Community Mental Health
Intellectual Disability
Complex continuing care

Depression Rating Scale (DRS)

- Clinical screen for depression if score of 3 or greater/14.

- Original reference: Burrows A, Morris JN, Simon S, Hirdes JP, Phillips C. (2000) Development of a Minimum Data Set-based Depression Rating Scale for Use in Nursing Homes. Age and Ageing 29(2): 165-172.

Depression Rating Scale



Validation of DRS

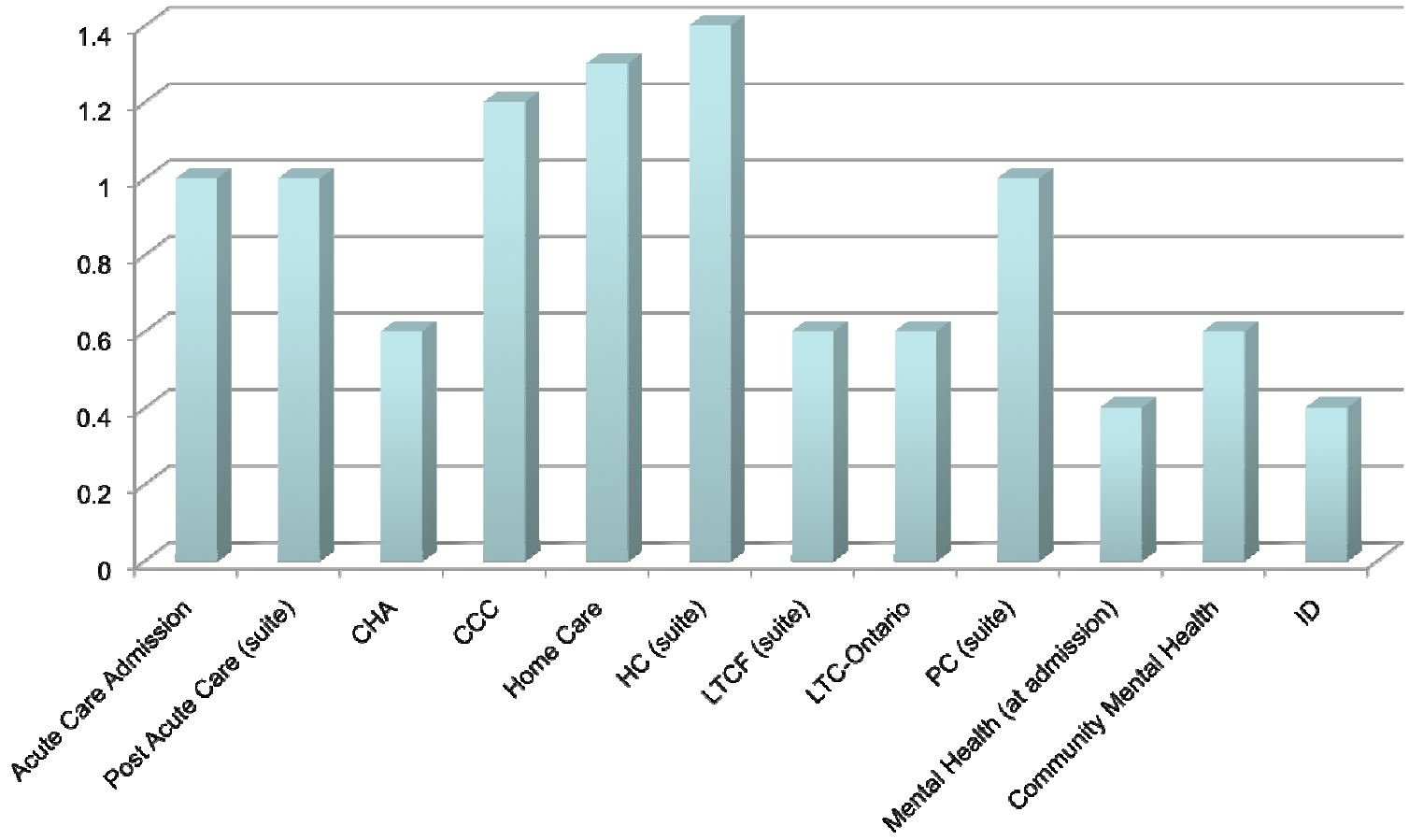
- Criterion validity based on comparison of the DRS with the Hamilton Depression Rating Scale and the Cornell Scale for Depression.
- Compared to DSM-IV Major or minor depression diagnoses, the DRS was 91% sensitive and 69% specific at a cut-point score of 3.

Pain Scale

- 4 category pain scale

- Original development:
- Fries BE, Simon SE, Morris JN, Flodstrom C, Bookstein FL. "Pain in US Nursing Homes: Validating a Pain Scale for the Minimum Data Set" *Gerontologist* 41(2):173-179, 2001

Pain Scale


1.4
1.2
1
0.8
0.6
0.4
0.2
0
Acute Care Admission
Post Acute Care (suite)
CHA
CCC
Home Care
HC (suite)
LTCF (suite)
LTC-Ontario
PC (suite)
Mental Health (at admission)
Community Mental Health
ID

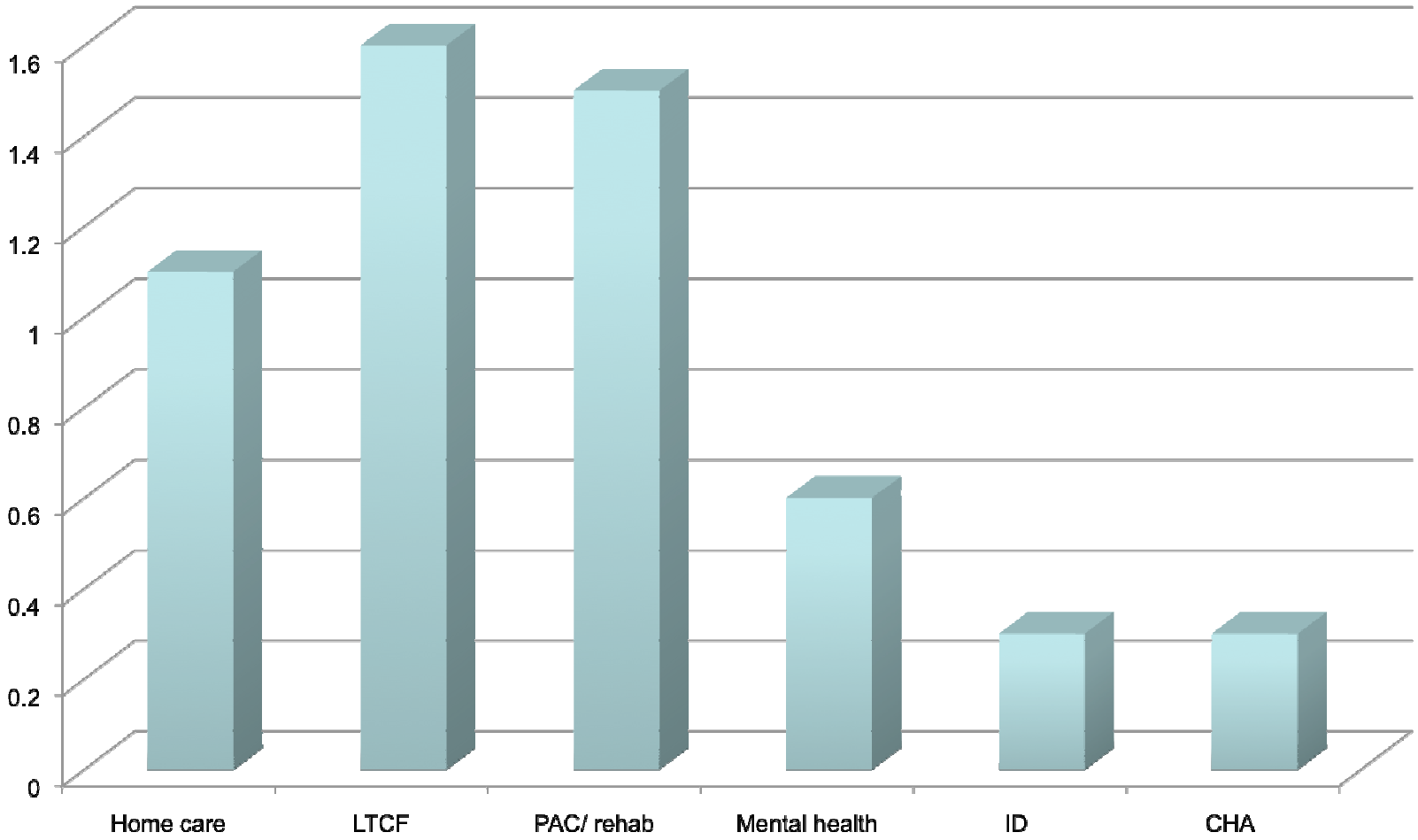
IADL Performance

Home Care	11.6 (6.0)
Community Health (CHA)	3.1 (6.9)
Intellectual Disability (ID)	20.1 (1.8)
Community Mental Health	4.7 (6.5)

CHESS
(Changes in Health, End-stage Disease and signs and symptoms)

- medical complexity and health instability **Scores range from 0 to 5.**
- items: vomiting, dehydration, leaving food uneaten, weight loss, shortness of breath, edema, end-stage disease, and decline in cognition and ADL.
- Original reference: Hirdes JP, Frijters D, Teare G. (2003) The MDS CHESS Scale: A New Measure to Predict Mortality in the Institutionalized Elderly. Journal of the American Geriatrics Society 51(1): 96-100.

CHESS


1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Home care
LTCF
PAC/ rehab
Mental health
ID
CHA

Conclusion

- Existing scales have good measurement properties
- Distribution of scale scores consistent with expectation
- Advocate for use in research and clinical practice
- Opportunities exist to further enhance scales

Additional scales

- Communication Scale
- Social Engagement Scale and the RISE or Revised Social Engagement Scale
- Aggressive Behaviour Scale (ABS)
- Delirium Scale
- BBC crosswalk to Berg Balance Scale
- PSI- Personal Severity Index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