# Measuring child care centre quality for quality improvement purposes

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#### **Talk Outline**

- 1. Context
  - O What is quality?
  - Quality matters
  - What do we know about quality in Canada?
- 2. What is a QRIS?
- 3. Toronto's QRIS
  - O What measures are used?
  - Describe some of the research on the City's QRIS
- 4. Challenges to using measures as part of QRISs

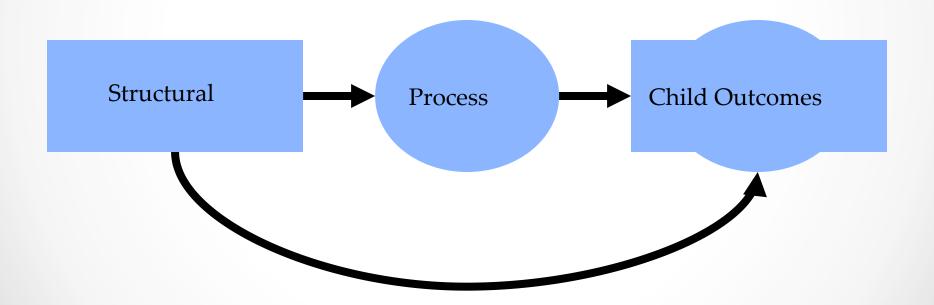
#### **Context: What is Quality**

- How do we conceptualize quality?
- How do we measure quality?
- Conceptualization and measurement should be based on theory and data, not intuition

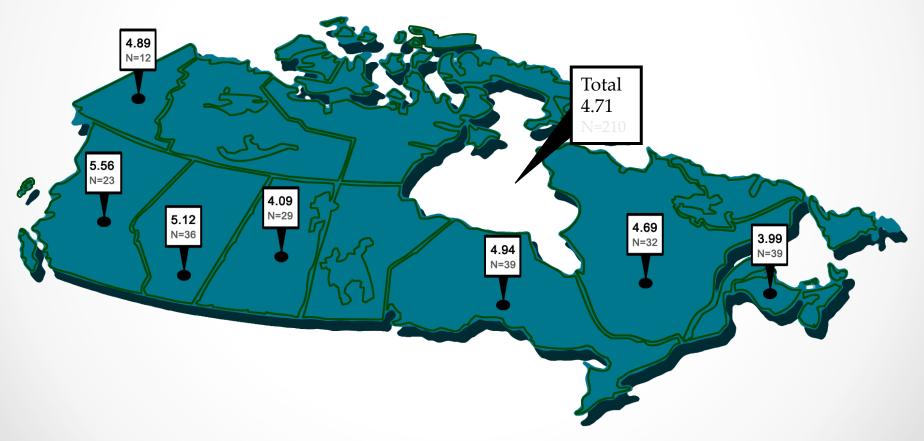
#### **Context: What is Quality**

- Key Structural Indicators:
  - Staff:child ratios
  - Group size
  - Staff training and education
- Key Process Indicators:
  - Learning Environment
  - Interactions
  - Parent Engagement

#### **Context: How does quality impact kids?**

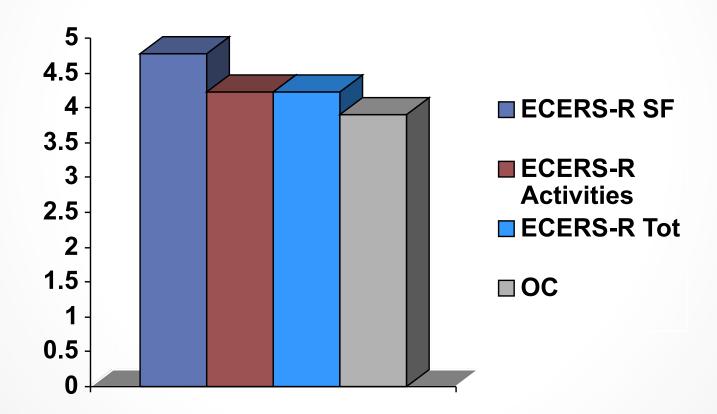


## Context: What do we know about child care quality in Canada?



Data come from You Bet I Care survey. Goelman et al., (2006).

## Context: What do we know about child care quality in Toronto?



## Context: What do we know about child care quality in Canada?

- Not very much
- Lots of room for improvement
- One way to try to improve quality is through Quality Ratings and Improvement Systems (QRISs)

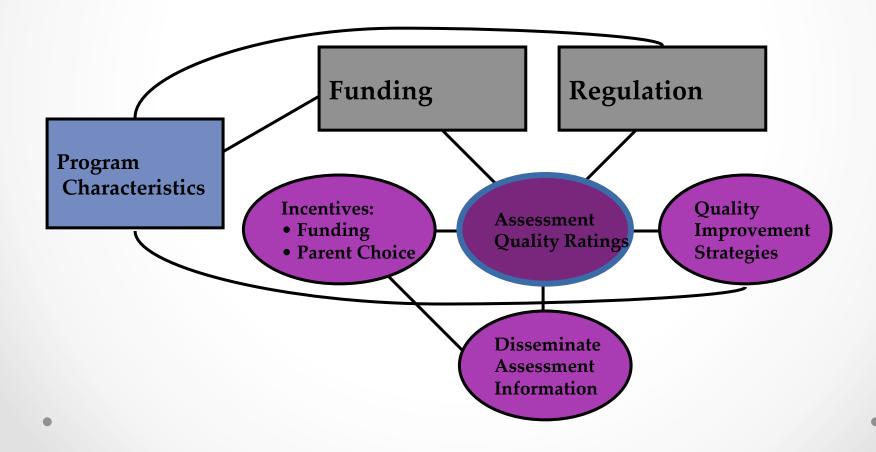
- Quality Rating and Improvement Systems are comprehensive measures imbedded in an accountability system.
- Common QRIS features:
  - Environment assessed with standardized rating scales (e.g., the ECERS-R/ITERS-R, the City's measure of quality)
  - Teacher credentials and training
  - Accreditation / regulatory compliance
  - Ratios

Rating systems are part of accountability systems that drive improvement

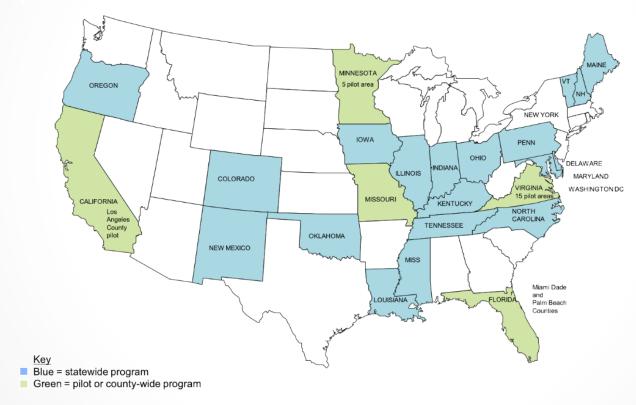


This means that scores have consequences

Measurement is a key component of a strong accountability system



Many state sections and pre-k



Tout et al. (2010)

Fairness is key to quality measurement:

- Parents
- Providers
- Funders

This means that measures have to be "accurate":

- Test what they are supposed to test (valid)
- Used consistently across assessors and time (reliable)
- Measures must be empirically based

## Toronto's QRIS: Early Learning and Care Assessment for Quality Improvement

- Used to assess quality in early learning programs
- Effective April 1, 2014 the ELCAQI will replace the original Toronto Operating Criteria
- Has three versions:
  - Infant (0-18 months)
  - Toddler (18-30 months)
  - Preschool (2.5-5 years)
- Capture aspects of structural and process quality
- We have been doing research to test the validity and reliability of the measure and its implementation

#### **Toronto's QRIS: Areas examined**

**Structure of the Day:** Daily text & visual schedules available that indicate a balance between structure and flexibility. Schedules include plans to meet the individual needs of children and ensure that all children are able to participate.

Activities and Experiences Planned: Staff determine the needs of each child so they can develop goals and objectives for each planned activity. Developmental reviews and observations are completed for each infant and developmental milestones are recorded.

Physical Environment: Environment is designed to promote participation, peer interaction and independent use by children. Always a variety of developmentally appropriate and diverse toys and materials, which are in good condition and complete, available to the children at all times during the day. Children have the opportunity to combine toys and materials to create their own experiences.

**Learning:** Play area is open and accessible to infants throughout the day. Learning occurs through planned activities and play with developmentally appropriate toys and materials for art/sensory, books/language, music, dramatic play, blocks and physical activities indoor and outside.

#### **Toronto's QRIS: Areas examined**

Physical Needs: Time to meet children's physical needs are planned so that an individual infant's needs and schedules are respected and their independence is fostered e.g. mealtime, diapering, sleep times and exceptional accommodations such as g-tube feeding, positioning etc.

Health and Safety: All areas of the program are free of hazards, kept in good and safe repair and maintained in a hygienic and orderly condition. Toys and equipment are washed and sanitized appropriately. Staff and children wash their hands before eating, serving food, after diapering and wiping noses. Child safety also includes safe transitions and ongoing attendance verification throughout the day.

Interactions: Staff are competent in their interactions with all children, including creating a positive atmosphere, providing appropriate supervision and behaviour guidance, fostering independence and self-esteem, supporting the development of language and communication skills and extending children's learning.

#### **Toronto's QRIS: Interaction items**

#### 6 items:

- Positive Atmosphere
- Supervision of Children
- Foster Children's Independence
- Supporting the Development of Self-Esteem
- Behaviour Guidance
- Supporting Communication and Extending Children's Learning

#### **Sample Infant Item – #3 Learning Experiences**

Does not meet Expectations	1 or 2
<ul> <li>□ Learning experiences offered are</li> <li>□ Learning experiences do not prom</li> <li>□ There is no current documentation observations of children are used</li> </ul>	note choice for children
Meets Expectations	3
<ul> <li>Evidence of opportunities to disculfamilies</li> <li>Standardized Developmental Screenildren</li> </ul>	
<b>Exceeds Expectations</b>	4 or 5
□ Activity resources available for far	o regular program, is included monthly

#### Sample Toddler Item - #5 Sensory, Science and Nature

#### 1 or 2 **Does not meet Expectations** ■ No materials for science and nature learning experiences ■ No materials for sensory learning experiences ☐ Sensory opportunities are not available throughout the day **Meets Expectations** ☐ Permanent sensory equipment is accessible to children in the play environment ☐ Three or more developmentally appropriate science and nature equipment and/ or materials are accessible. ☐ Opportunities to experience natural object and/or events 4 or 5 **Exceeds Expectations** ☐ Two or more planned and/or documented sensory learning experiences occur daily ☐ Sensory learning experiences are planned and/or documented to reflect different senses ☐ Two or more science and nature learning experiences planned and/or documented weekly

☐ Science and nature learning experiences planned and/or documented daily

#### **Sample Preschool item -- #27 Foster Independence**

Does not meet Expectations	1 or 2
☐ Staff do not follow the children's cul ☐ Staff repeatedly do not allow children ☐ Staff repeatedly do not encourage of	
Meets Expectations	3
☐ Staff consistently follow the children ☐ Children are provided with choices ☐ Staff provide time for children to co	
<b>Exceeds Expectations</b>	4 or 5
<ul> <li>Children are provided with choices</li> <li>Staff provide spontaneous resource learning path</li> <li>Staff create opportunities for enhancement</li> </ul>	es to allow the child to follow their own

Study Sample Used for testing concurrent validity	Operational Data Used for testing psychometric properties
78 randomly centres	571 centres (entire population)
118 preschool classrooms classrooms	1116 preschool classrooms
Extensive quality data collected	OC data only

#### Preschool 4-Point Version

- Psychometric Properties of the Preschool OC:
  - It hangs together well
  - It is uni-dimensional
  - Only the Interaction section exists as a subscale (interaction scores can be computed if needed)

Concurrent validity is good - compare OC to other quality measures

Measure	Correlation with OC
ECERS-R Space and Furnishings Subscale Score	0.45 **
ECERS-R Activities Subscale Score	0.60 **
ECERS-R Total summary score	0.61 **
CLASS Emotional Support	0.39 **
CLASS Classroom Organization	0.36 **
CLASS Instructional Support	0.47 **

The ELQA is MUCH more efficient to administer then ECERS/CLASS But, programs started "bunching up at the top" on the 4-point scale so the City decided to move to a 5-point scale

### **BUT....**

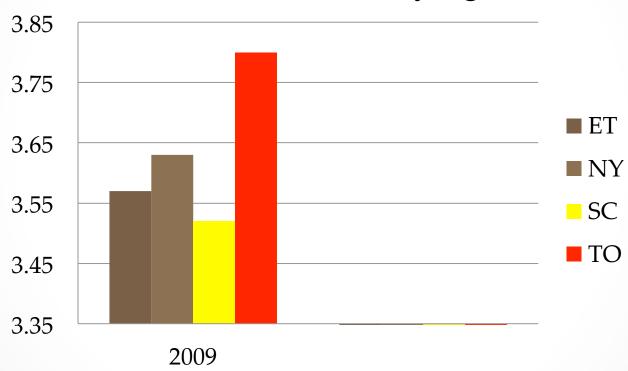
Even if a measure is valid and administered by reliable testers there can still be implementation issues that threaten the accuracy of the scores.

#### Preschool Version - Operating Criteria

- In 2009 City staff collected OC scores in approximately 120 classrooms as part of a research study. Scores were compared to those collected for the same rooms for operational purposes that year
- At that time over 20 city consultants conducted the assessments. They were assigned a caseload of programs in specific regions of the city
- Consultants were also assigned the task of helping programs improve over time through coaching, etc.

- Comparison of scores for the same classrooms that were collected as part of the study vs. for operational purposes revealed that:
  - Scores were somewhat lower in the research study
  - Many more programs failed items in the study than they did when the City collected the OC for operational purposes
  - The average ratings varied across regions of the city but we did not know why because region was confounded with assessors
    - This raised concerns about potential bias in how individuals rate their assigned caseloads

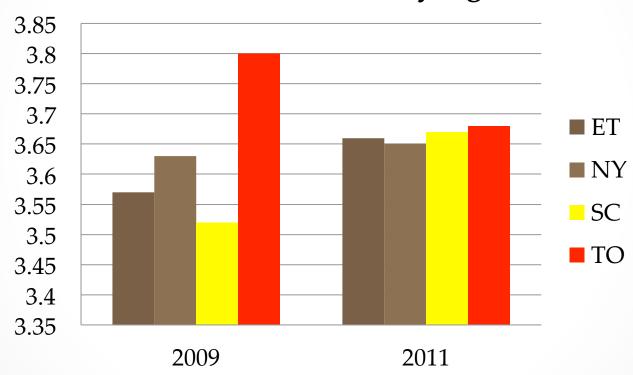
#### Preschool OC scores by region



#### Preschool Version - Operating Criteria

- In response to this information, the City disentangled the assessor and mentor roles
- Now there is a group of 7 Quality Assurance Analysts who do assessments only (i.e. not coaching)
- They are randomly assigned to programs across the city
- Consultant focus on quality improvement efforts and other tasks
- We looked for evidence of the impact of this change and saw...

#### Preschool OC scores by region



## Testing the validity of Toronto's QRIS: Infant and Toddler Study in 2013/2014

Infant and Toddler 5-point Scale Versions

- Psychometric Properties :
  - Both now hang together well
  - Both are uni-dimensional
- Concurrent Validity
  - Interactions correlated with the CLASS for both version
  - Working on further data collection/analysis

#### Conclusions about implementing a QRIS

- Assessing quality is hard but doable
- Recognize the many commonalities across diverse regions in what helps young children thrive
- Use evidence to inform practice this is an iterative, dynamic process
- Learn from each other no need to reinvent the wheel (it turns out that it's hard and costly to invent the wheel)

#### Challenges to implementing a QRIS

There are many including:

- Measurement occurs in a real world context by real people and this can impact scores
- System needs to be "static" to meet research standards but this can be very stressful for operators. Creates tension between evidence based reliable/valid systems and relationship between the system managers, assessors, consultants and the operators
- Need program buy-in to work effectively with programs to improve quality...

#### Thank you

- Staff at Children's Services
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- And many others