



Alberta Child Care Facility-Based Child Care Quality Indicators February 24, 2022

Introduction

This document will introduce, for the first time, the concept of Quality Indicators. Quality Indicators use the same methodology employed in designing Key Indicators for licensing regulations.

The Alberta Quality Indicators are based on License Holder Program Plans developed in accordance with Part 1, 6(a),(b) of the Early Learning and Child Care Act. Program Plans are comprehensive documents that encompass key aspects of an early care and education program, including but not limited to developmental needs of children, educational philosophy, interaction with the local community, child guidance, staffing, accident and illness prevention, health care, and supervision policy and practices.

The Quality Indicators can be used in conjunction with the licensing Key Indicators and High-Risk Regulations to develop an efficient, comprehensive approach to License Holder oversight that balances regulatory compliance and child care program quality.

Data Collection

Data was collected through the review of License Holder Program Plans. Reviews were conducted at the regional level between the period May 2021 to November 2021 using a standardized assessment instrument. The assessment instrument included 34 elements, each of which was assigned a score based on the quality of the plan. The score rubric was as follows:

Score	Descriptor	Description
0	Does not meet requirements	No best practice embedded; no confidence in License Holder's (LH) response
1	Does not meet requirements	Very little best practice embedded; low confidence in LH's response
2	Does not meet requirements	Some best practice embedded; some confidence in LH's response
3	Meets minimum requirements	Little to no best practice embedded; moderate confidence in LH's response
4	Meets requirements	Best practice embedded; confidence in LH's response
5	Meets and exceeds requirements	Significant best practice embedded; high confidence in the LH's response

Licensing Officers conducted an initial review of Program Plans, after which technical assistance was provided to License Holders to improve the quality of the Program Plans. Additional Program Plan reviews were conducted after technical assistance was provided by the Licensing Officers. Program Plan review continued until the Licensing Officers were satisfied that the plans were of the highest possible quality, at which point a "final" review was conducted.

The results of each review were then tabulated to produce a dataset, whereupon a “Total Quality Score” (TQS) for each review was obtained by summing the result of each element.

A fundamental concept of differential monitoring is that health and safety is the foundation upon which quality is built. Health and safety are a function of licensing rules, whereas quality is a function of best practices. Elements of quality measurement should not mirror regulatory requirements¹. Following discussion of the preliminary Quality Indicator findings with Alberta Child Care staff in December 2021 and February 2022, it was determined that multiple elements of the Program Plans are very similar to regulatory requirements in the Early Learning and Child Care Act. As a result of that discussion, the Quality Indicator dataset was truncated to include only Program Plan elements that did not have a corresponding regulatory requirement. The final dataset included the following 12 elements:

Element Number	Description
1	The early learning and child care philosophy the facility-based child care program is based on.
2	How the philosophy will be applied to encourage care and play experiences that support children’s development and early learning in the program.
3a	How the child care program plans to meet, promote and nurture the mental needs of children.
3b	How the child care program plans to meet, promote and nurture the emotional needs of children.
3c	How the child care program plans to meet, promote and nurture the spiritual needs of children.
3d	How the child care program plans to meet, promote and nurture the physical needs of children.
4	How the program will be inclusive and accommodate the needs of all children including those with exceptional needs.
5	How the program will incorporate and support the child’s familial, Indigenous or other cultural, social, linguistic and spiritual heritage to ensure it is central to the child’s safety, well-being and development.
6	How the program will engage with and access community organizations, resources, and members to promote positive connections.
7	The nature and scope of parental involvement in the program
8	Describes the process for ongoing evaluation and improvement of the child care program.
11	Staff orientation.

A new TQS was then obtained using only the above elements.

¹ This long-established concept was first presented in the late 1970s (see *Young Children*, Vol. 34 No. 6 Sept. 1979, pp. 22-27, Gwen G Morgan) and continuously reinforced since then, e.g. Rick Fiene’s December 2012 update of Morgan’s research.

Methodology

The methodology sought to measure the strength of the relationship between each individual quality-based Program Plan element and the TQS. The Spearman's Rho test of association was used. The individual element scores are ordinal variables while TQS is a ratio variable, and the variables have a monotonic relationship. For purposes of this analysis, strengths of association were as follows:

Correlation Coefficient	Strength
.00 to .19	Very Weak
.20 to .39	Weak
.40 to .59	Moderate
.60 to .79	Strong
.80 to 1.0	Very Strong

Tests of association were conducted on the initial review and the final review. This method was chosen because the nature of indicators is such that the relationship between individual elements and TQS should be the same regardless of any intervention, i.e., the provision of technical assistance. What we would therefore seek to identify are the elements that have strong and statistically significant associations in both the initial and final reviews. The correlation coefficients and strengths of each element are shown below:

Element	Correlation - Initial	Strength – Initial	Correlation - Final	Strength – Final
1	0.57	Moderate	0.64	Strong
2	0.61	Strong	0.63	Strong
3a	0.78	Strong	0.72	Strong
3b	0.77	Strong	0.70	Strong
3c	0.79	Strong	0.73	Strong
3d	0.82	Very Strong	0.73	Strong
4	0.79	Strong	0.70	Strong
5	0.65	Strong	0.55	Moderate
6	0.78	Strong	0.70	Strong
7	0.70	Strong	0.72	Strong
8	0.58	Moderate	0.63	Strong
11	0.70	Strong	0.67	Strong

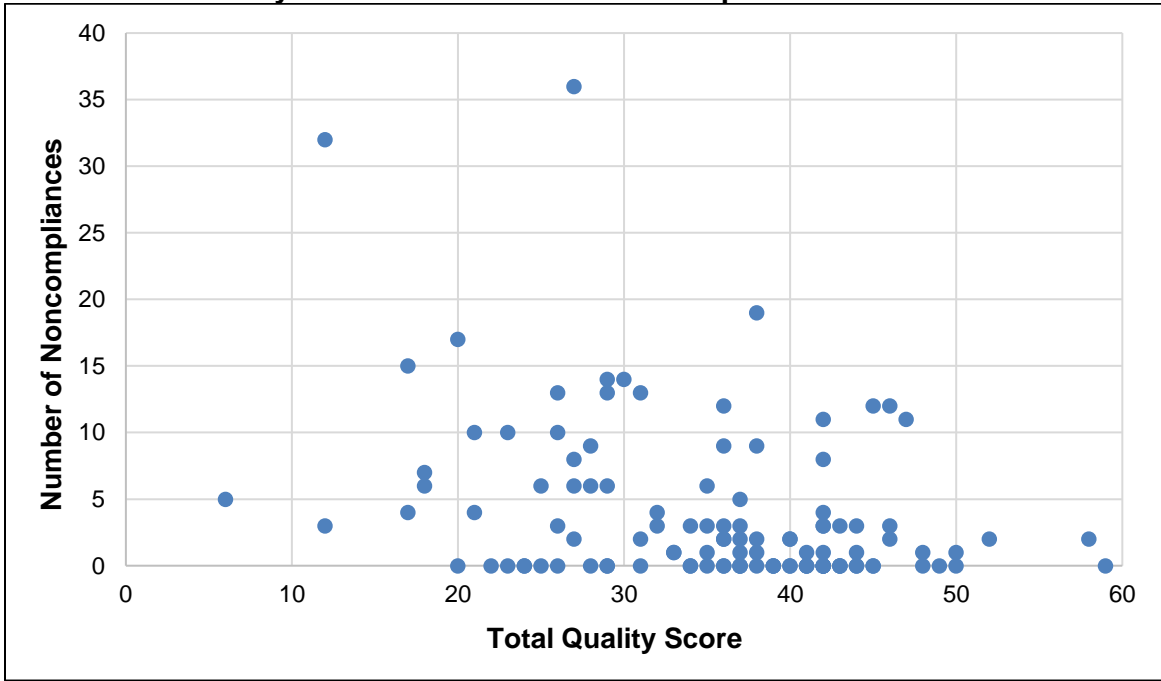
Quality and Noncompliance

Another standard test for the validity of a quality measurement system / Quality Indicators involves measuring the relationship between regulatory compliance and program quality. Historical analyses have consistently found that programs with substantial regulatory compliance have higher quality scores than programs with full regulatory compliance. This is typically called the “regulatory compliance law of diminishing returns.”

The Pearson's r test of association was used to determine the relationship between the TQS from both the initial and final reviews and the number of noncompliances identified by each program during the period February 2019 to January 2021.

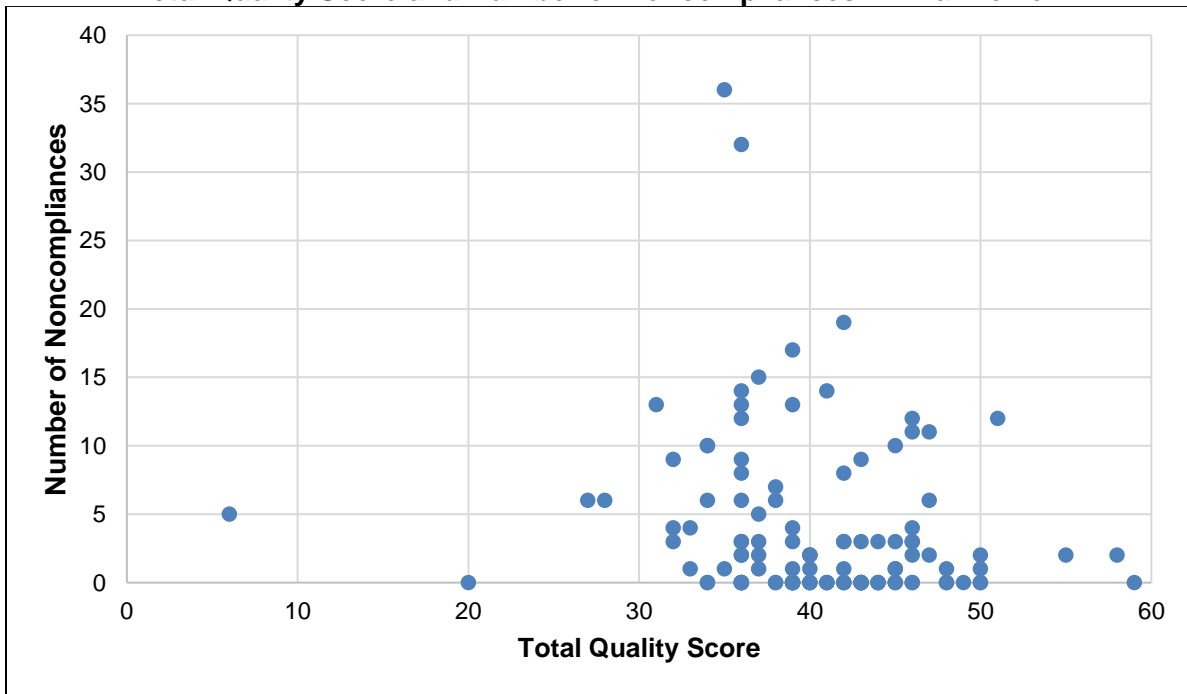
The tests found extremely weak correlations between TQS and the number of noncompliances for either review. The graphs below illustrate the relationship between the TQS and noncompliance.

Total Quality Score and Number of Noncompliances – Initial Review



$r = -0.35$

Total Quality Score and Number of Noncompliances – Final Review

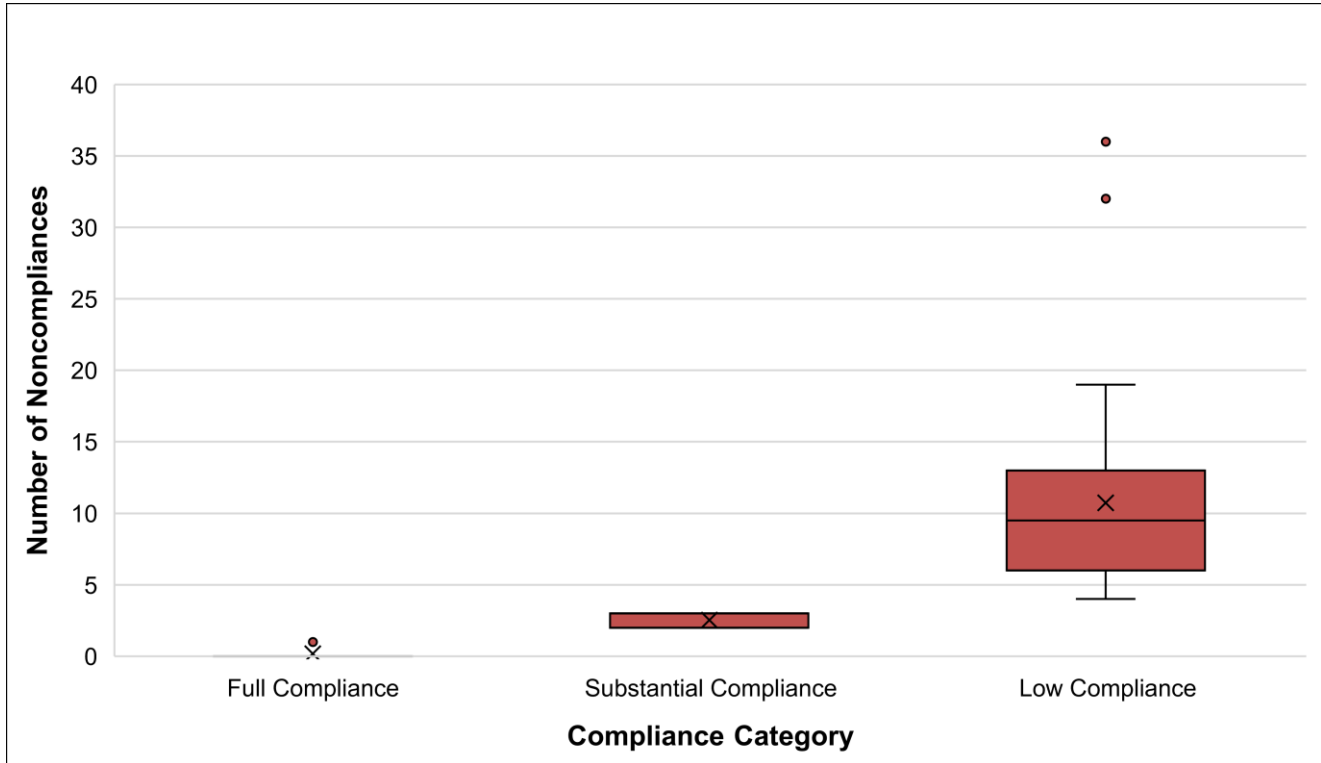


$r = -0.18$

To further test the relationship between TQS and noncompliance, the license holders were grouped into three categories based on the number of noncompliances:

Compliance Category	Noncompliances	License Holders in Category
Full Compliance	0	44
Substantial Compliance	1-3	33
Low Compliance	4 or more	36

The chart below shows the range of scores in each compliance category, the median or “middle” of the range, and outlier license holders.



A One-Way Analysis of Variance (ANOVA) test was used to compare the three categories to the TQS to determine whether there was a statistically-significant difference between the average TQS of each group that is greater than what one would expect to see by chance. Results:

Initial Review

Compliance Category	Average TQS
Full Compliance	37.4
Substantial Compliance	38.5
Low Compliance	29.1

F = 11.96; p = 0.001

This test shows that there is a statistically-significant difference in the average TQS between each category such that the difference is greater than what one would expect to see by chance. Note that the average TQS for the Substantial Compliance category is higher to the average TQS for the Full Compliance category, which is consistent with the existing literature on quality and regulatory compliance.

Final Review

Compliance Category	Average TQS
Full Compliance	41.4
Substantial Compliance	42.0
Low Compliance	37.3

F = 5.7; p = 0.005

This test shows that there is a moderately-statistically significant difference in the average TQS between each category; such that the difference is greater than what one would expect to see by chance. In this case, the average TQS for the Substantial Compliance category remains higher) than the average TQS for the Full Compliance category.

Results

The results of the above analyses verify the following:

- Each of the 12 elements relating to quality have a “strong” or “very strong” statistically-significant relationship to the overall quality of a child care program, telling us that each quality element is a Quality Indicator.
- The relationship between regulatory compliance and the overall quality of child care programs is consistent with previous research, validating that the 12 quality elements are each Quality Indicators.

Incorporating Quality Indicators into the Differential Monitoring System

Licensing oversight agencies have used a variety of quality evaluation and improvement tools in conjunction with regulatory compliance data for wholistic oversight for many years. However, this is the first time that Quality Indicators have been considered for an abbreviated evaluation of program quality.

One of Alberta’s key objectives in their overall Differential Monitoring System is to maximize efficiency of regulatory oversight and quality management during the inspection process. For this reason, NARA recommends that only those Quality Indicators with correlation coefficients of 0.70 or higher for both the initial and final Program Plan reviews be reviewed during inspections. This will reduce the “actual” number of Quality Indicators from 12 to 7:

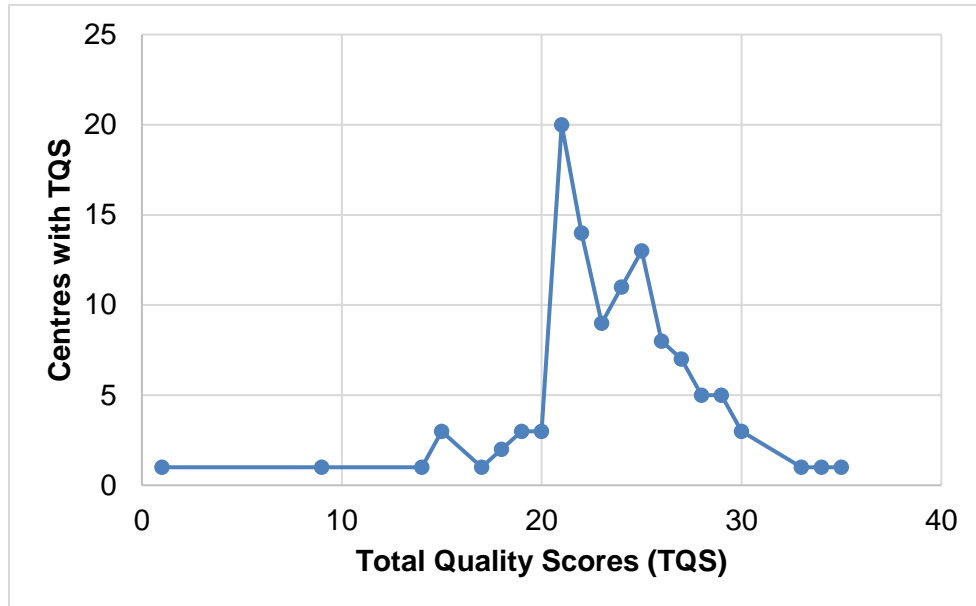
Element	Description	Correlation - Initial	Strength – Initial	Correlation - Final	Strength – Final
3a	Nurture Mental Needs	0.78	Strong	0.72	Strong
3b	Nurture Emotional Needs	0.77	Strong	0.70	Strong
3c	Nurture Physical Needs	0.79	Strong	0.73	Strong
3d	Nurture Spiritual Needs	0.82	Very Strong	0.73	Strong
4	Inclusivity / Accommodate all Needs	0.79	Strong	0.70	Strong
6	Engage and Access Community	0.78	Strong	0.70	Strong
7	Scope of Parental Involvement	0.70	Strong	0.72	Strong

When performing either full or abbreviated inspections, Licensing Officers will use a Program Plan Evaluation Tool to “rate” the Quality Indicators. The basic process steps will be:

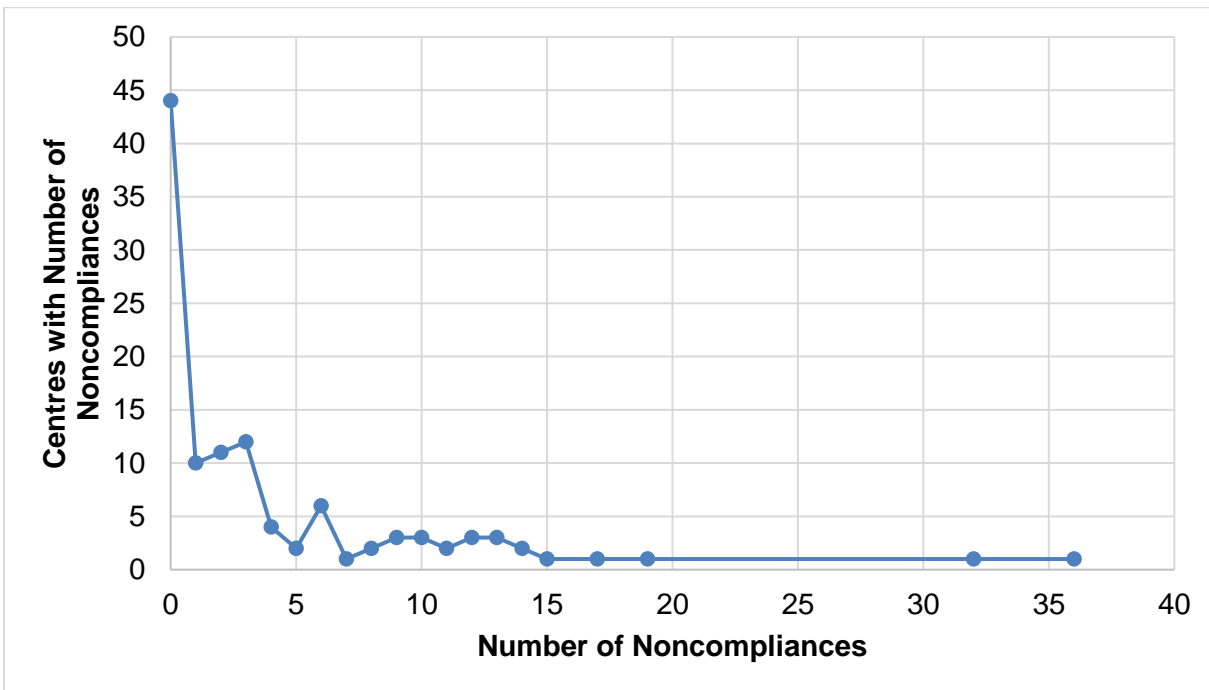
1. The Licensing Officer will ask to see the Program Plan.
2. The Licensing Officer will use the tool to evaluate 7 Program Plan Quality Indicators (the elements of the program plan) listed above.
3. Each element will be scored by the Licensing Officer using a range of 0 – 5, where 0 is “Unacceptable” and 5 is “Exceptional.”
4. The scores for each element will be summed to produce the “Quality Score.”
 - a. The lowest possible score is 0.
 - b. The highest possible score is 35.

Example: Quality Scores from the Quality Indicator Study

The chart below shows the Total Quality Scores for the 113 centres whose Program Plans were reviewed for the Alberta Quality Indicator Study². A small number of programs had very low scores and a small number of programs had very high scores. Most programs had scores between 20 and 25. This is exactly the range of program quality we would expect to see.



The chart below shows number of noncompliances identified during the period February 2019 to January 2021 at the 113 centres whose program plans were reviewed. Most centres had between 0-3 noncompliances. This further illustrates how a center could be highly-compliant with regulatory requirements but not have a high TQS.



² The final Program Plan reviews are shown.

How will the Quality Score Be Used?

The Quality Score will be for internal use only. It will be used to:

- Serve as a “quick reference” when there is an immediate need to describe a license holder’s performance, e.g., a government official asks “is this a good or bad facility?”
- Provide technical assistance to the License Holder about areas for quality improvement.
- Compare the overall quality of a given centre to other centres.

Conclusion and Next Steps

These findings show that Quality Indicators have been statistically validated and can be used to develop an oversight method that balances regulatory compliance and program quality without compromising the health and safety of children in care. The next step in this process is to test the validity and effectiveness of the method through the differential monitoring pilot.

Appendix – Data Collection and Analysis Information

Table 1: Number of Program Plan Reviews Completed, by Region* (n = 219)

Region	Number of Reviews						Total
	1	2	3	4	5	6	
Calgary	23	17	2	1	0	0	43
Central	24	17	3	0	0	0	44
Edmonton	19	13	1	0	0	0	33
North	30	21	2	0	0	0	53
South	17	13	8	4	3	1	46
Total	113	81	16	5	3	1	219

Example: Calgary completed 1 review of 23 License Holders' Program Plans, 2 reviews of 23 License Holders' Program Plans, etc.

Table 2: Number of License Holders with at Least 1 Program Plan Review, by Region (n = 113)

Region	License Holders
South	17
Calgary	23
Central	24
Edmonton	19
North	30
Total	113