

HUMAN SERVICES LICENSING MEASUREMENT, REGULATORY COMPLIANCE AND PROGRAM MONITORING SYSTEMS: ECPQI2M4©/DMLMA©

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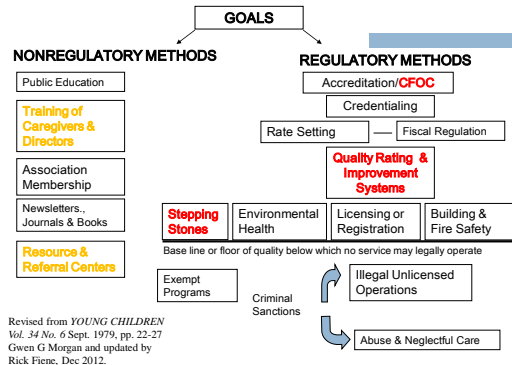


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Previous Models (ECPQIM 1 – 3)

Methods for Achieving Quality Child Care



Achieving Quality Child Care

- Quality care is achieved by both regulatory and non-regulatory approaches. However, licensing provides the threshold or floor of quality below which no program should be permitted to operate.

Other regulatory approaches toward achieving quality

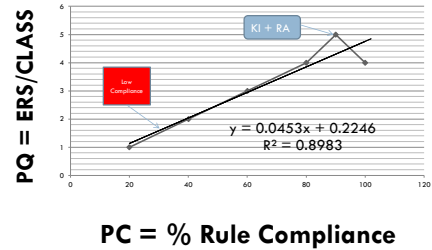
- Credentialing:** A formally recognized process of certifying an individual as having fulfilled certain criteria or requisites. (PD)
- Purchase of service contracts:** Regulation by contract in which performance standards are imposed as a contractual obligation. (PQ - QRIS)
- Accreditation:** The formal recognition that an agency or organization has complied with the requisites for accreditation by an accrediting body. Accreditation usually requires the organization seeking this form of recognition to pay for the cost of the process. The organization bestowing the accreditation has no legal authority to compel compliance. It can only remove accreditation. (PQ)
- Best Practices:** Through affiliation with professional organizations, an agency becomes aware of "best practices" and establishes its own goals to achieve a higher level of care services. (PQ – CFOC)

Non-regulatory approaches to achieving quality care in human services facilities or programs

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- Consultation
- Consumer Education
- Peer Support Associations
- Professional Organizations
- Resource and Referral
- Technical Assistance
- Mentoring/Coaching
- Training-Staff Development

Relationship between PC (CI) & PQ (Fiene & Nixon, 1985)(Fiene, 1985)



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Comparing HSPS Violations with CLASS Scores (Fiene, 2013c)

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HSPS/CM Violations	IS	ES	CO	Number/Percent
0 (Full Compliance)	3.03	5.99	5.59	75/19%
1-2 (Substantial Compliance)	3.15	5.93	5.50	135/35%
3-8 (Mid-Compliance)	2.87	5.85	5.37	143/40%
9-19 (Lower Compliance)	2.65	5.71	5.32	28/6%
20-25 (Lowest Compliance)	2.56	5.52	4.93	3/1%
Significance	$F = 4.92, p < .001$	$F = 4.918, p < .001$	$F = 4.174, p < .001$	

CM Violations = Compliance Measure Violations (lower score = higher compliance/higher score = lower compliance)

IS = Average CLASS IS (Instructional Support) Score

ES = Average CLASS ES (Emotional Support) Score

CO = Average CLASS CO (Classroom Organization) Score

N/% = Number of programs and Percent of programs at each level of compliance

PC & PQ Comparison of CC and PK (Fiene, 2013e)

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PC = Child Care Licensing Compliance

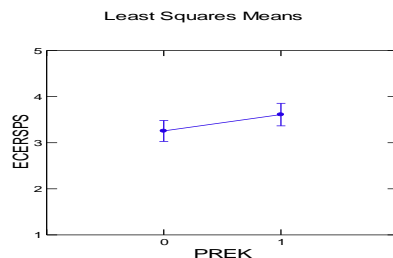
- **Licensing / ECERS-R**
- 100 / 3.40 Full Compliance
- 99 / 4.35
- 98 / 3.89 Substantial Compliance
- 97 / 3.15
- 96 / 3.16
- 95 / 3.53
- 90 / 2.56 Medium Compliance
- 80 / 2.38 Low Compliance

PQ = Pre-K Program Licensing Compliance

- **Licensing / ECERS-R**
- 100 / 4.88 Full Compliance
- 99 / 4.13
- 98 / 4.38 Substantial Compliance
- 97 / 3.99
- 96 / 4.36
- 95 / 4.60
- 90 / 3.43 Medium Compliance
- 80 / 2.56 Low Compliance

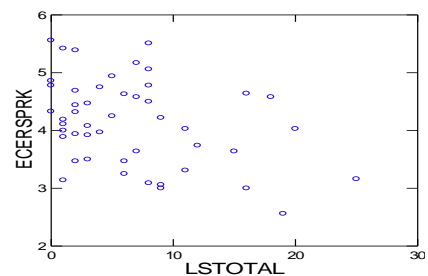
Impact of PK on ECERS

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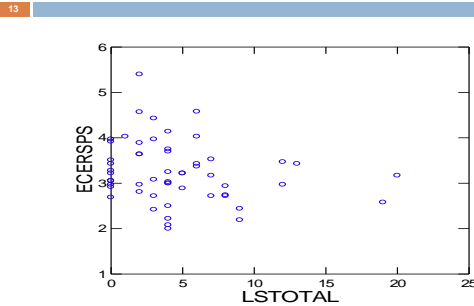


ECERS PRE-K & Licensing Scores

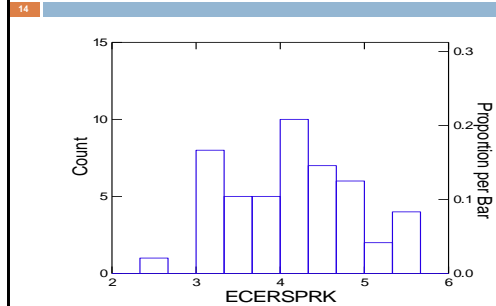
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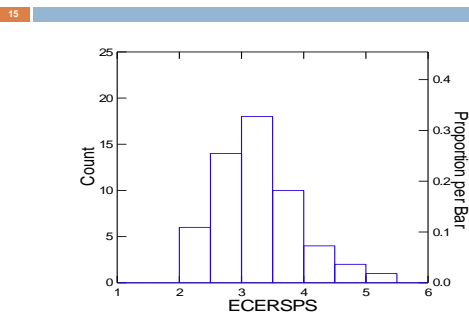
ECERS Child Care & Licensing Scores



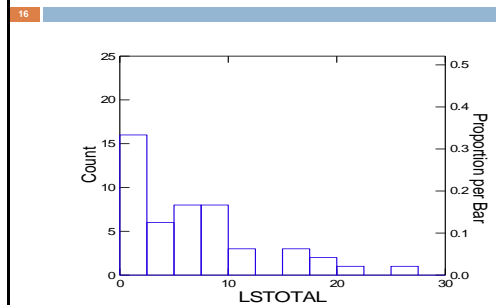
ECERS PRE-K Distribution



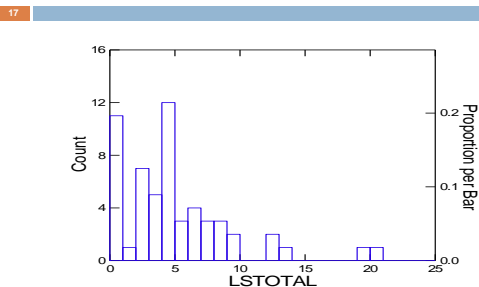
ECERS Child Care Distribution



Licensing Scores for PRE-K



Licensing Scores for Child Care

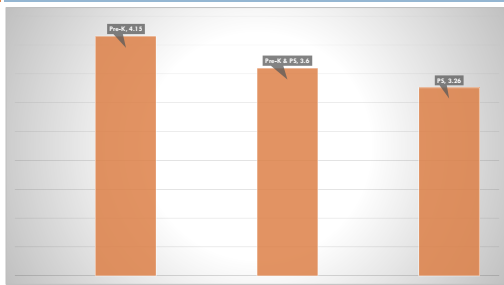


Impact of Pre-K & Higher Standards

- 18
- Pre-K only ECERS average = **4.15**
 - These are classrooms funded by Pre-K.
 - Pre-K's impact on child care, ECERS average = **3.60**
 - These are classrooms not funded by Pre-K but in the same building as a Pre-K funded classroom.
 - Child care only ECERS average = **3.26**
 - These are classrooms in programs that are not funded by Pre-K.

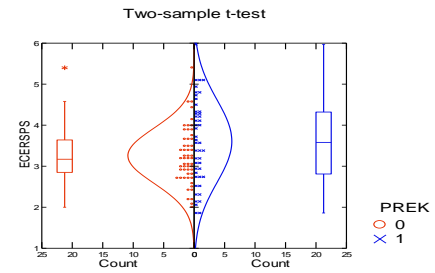
Impact of Pre-K on ECERS Scores

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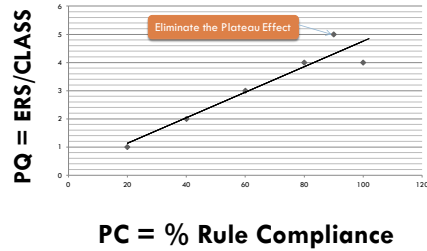
CC w/ & w/o Pre-K with ECERS Scores

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Relationship between PC (CI) & PQ

(Fiene & Nixon, 1985)(Fiene, 1985)(Fiene, 2013e)



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Regulatory Paradigms

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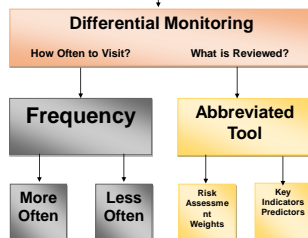
Absolute (Class, 1957)

- All rules are created equal.
- 100% Compliance = Full License.
- PC + PQ = Linear.
- All rules are reviewed all the time.

Relative/Differential (Fiene, 1985)

- All rules are not created equal.
- Substantial Compliance = Full License.
- PC + PQ = Not Linear.
- Selected key rules are reviewed all the time.

All Licensing Rules – Full Compliance Reviews



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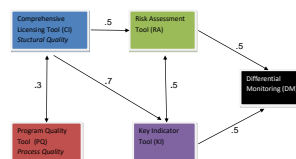
DIFFERENTIAL MONITORING LOGIC MODEL & ALGORITHM

(DMLMA©) (Fiene, 2012): A 4th Generation ECPQIM – Early Childhood Program Quality Indicator Model

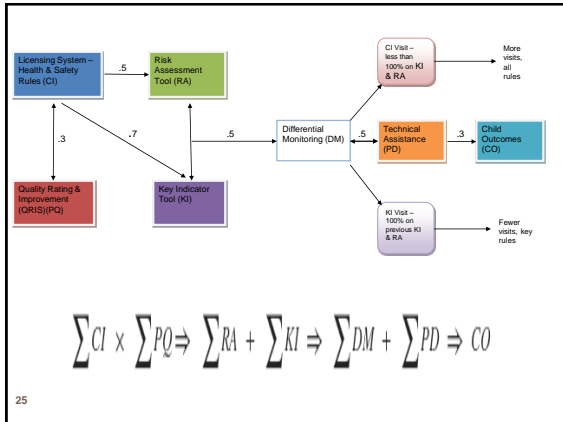
$$CI \times PQ \Rightarrow RA + KI \Rightarrow DM \Rightarrow CO$$

Definitions of Key Elements:

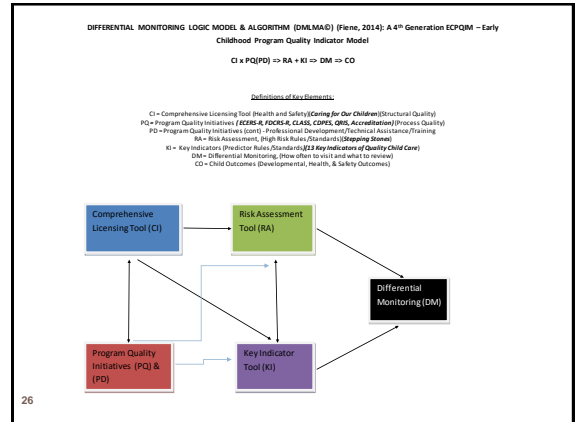
CI = Comprehensive Licensing Tool (Health and Safety)(Caring for Our Children)
 PQ = ECERS-A, IPCS-A, CLASS, COPES (Cognitive/Child Interactions/Classroom Environment)
 RA = Risk Assessment, (High Risk Rules)(Stepping Stones)
 KI = Key Indicators (Predictor Rules)(3 Key Indicators of Quality Child Care)
 DM = Differential Monitoring, (How often to visit and what to review)
 PD = Professional Development/Technical Assistance/Training
 CO = Child Outcomes (See Next Slide for PD and CO Key Elements)



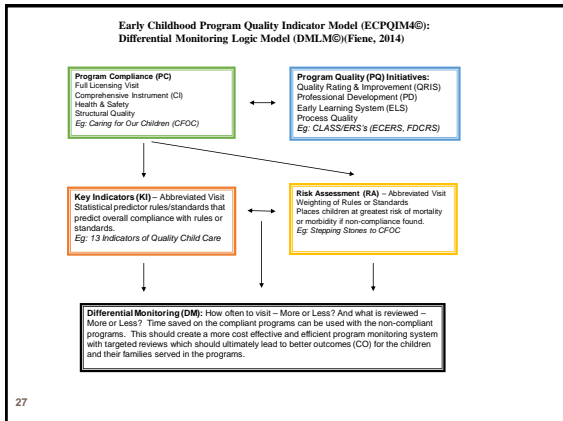
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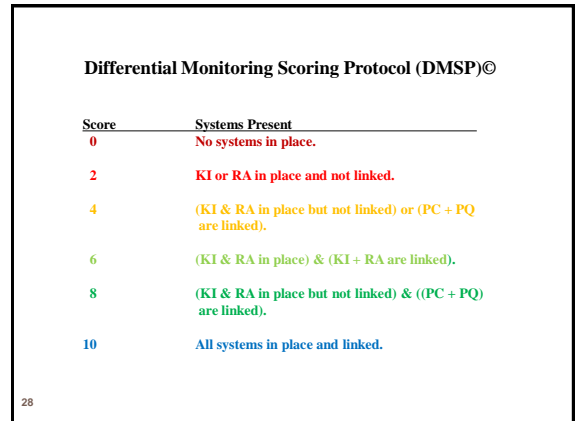
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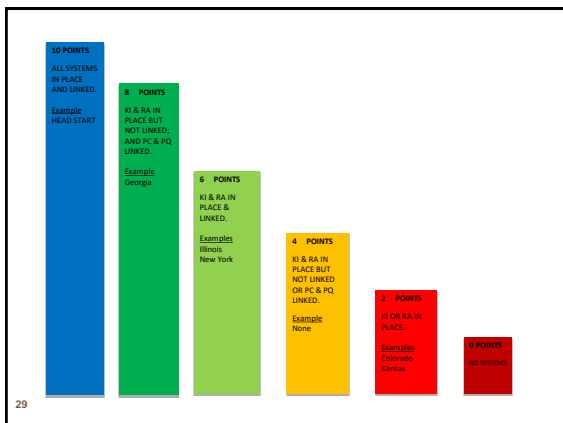
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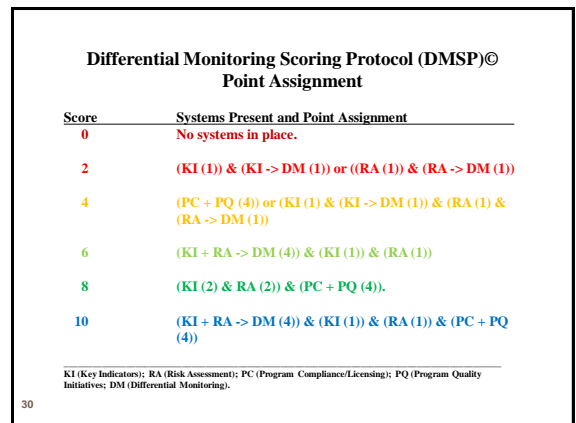
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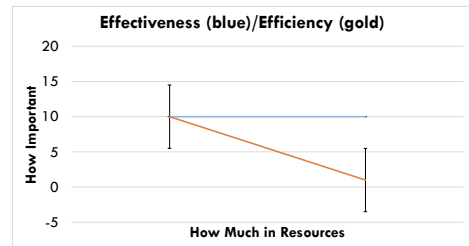
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SYSTEMS (pts)	MODEL	GA	NY	HS	IL	KS	CO
KI (1)	1	-	1	1	1	1	1
RA (1)	1	1	1	1	1	-	-
KI + RA -> DM (4)	4	2	4	4	4		
KI + RA (2)							
PC + PQ (4)	4	4	-	4	-	-	-
KI -> DM (1)						1	1
RA -> DM (1)		1				-	-
TOTAL (10)	10	8	6	10	6	2	2

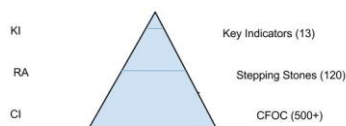
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Program Monitoring Effectiveness/Efficiency Relationship

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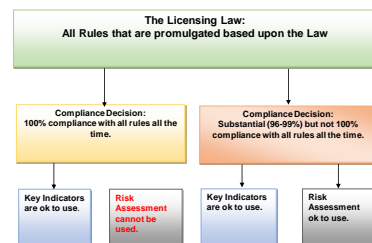
Relationship of Key Indicators (KI), Stepping Stones (RA), and Caring for Our Children (CFOC)(CI)



The above diagram depicts the relationship amongst KI, RA, and CI in which the full set of rules is represented by CFOC - Caring for Our Children, followed by RA which are the most critical rules represented by Stepping Stones, and finally the predictive rules represented by the 13 Key Quality Indicators.

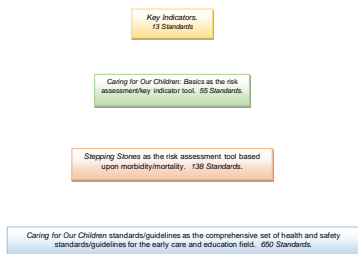
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When Key Indicators and Risk Assessments Can Be Used



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Relationship of Health and Safety Rules/Regulations, Standards, and Guidelines in Early Care and Education



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Validation Approaches (Zellman & Fiene, 2012)

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- **First Approach (Standards)**
 - $CI \times \text{Caring for Our Children/Stepping Stones/13 Key Indicators of Quality Child Care}$
- **Second Approach (Measures)**
 - $CI \times RA + KI \times DM$
- **Third Approach (Outputs)**
 - $PQ \times CI$
- **Fourth Approach (Outcomes)**
 - $CO = PD + PQ + CI + RA + KI$

DMLMA[®] Expected Thresholds

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DMLMA[®] Expected Thresholds

□ .70+

□ .50+

□ .30+

DMLMA[®] Key Elements Examples

□ CI x KI

□ RA x CI; RA x DM; RA x KI; DM x KI; DM x PD

□ PQ x CI; PQ x CO; RA x CO; KI x CO; CI x CO

DMLMA Expected Thresholds Matrix*

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	PQ	RA	KI	DM	PD	CO
CI	0.3	0.5	0.7	0.5	0.5	NS
PQ				0.3	0.3	NS
RA			0.5	0.5	0.5	0.3
KI				0.5	0.5	0.3
DM					0.5	
PD						0.4

Interpretation of Inter-Correlations

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- Based upon recent research, the relationships between H&S (CI)(PC) and QRIS (PQ) standards and Child Outcomes (CO) is difficult to find significance.
- The relationship between Professional Development (PD) and staff interactions with Child Outcomes (CO) appear to be the significant relationship that should be explored as a Quality Intervention.
- If we want to explore H&S and QRIS standards significant relationships we may need to look at children's health & safety outcomes.

A Validation Study: State Example (Fiene, 2013e)

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Validation Approach/Research Question	CCC Actual (Expected*)	FCC Actual (Expected)
1 STANDARDS/Key Indicators	VALIDATED	VALIDATED
KI x CR	.49 (.50+)	.57 (.50+)
KI x LS	.78 (.70+)	.87 (.70+)
2 MEASURES/Core Rules/ACDW	VALIDATED	VALIDATED
CR x LS	.69 (.50+)	.74 (.50+)
CR x ACDW	.76 (.50+)	.70 (.50+)
3 OUTPUTS/Program Quality	VALIDATED	NOT VALIDATED
ECERS-R/PK x LS	.37 (.30+)	FDCEs x LS .19 (.30+)
ECERS-R/PS x LS	.29 (.30+)
ECERS-R/PK x CR	.53 (.30+)	FDCEs x CR .17 (.30+)
ECERS-R/PS x CR	.34 (.30+)

*See below for the expected r values for the DMLMA[®] thresholds which indicate the desired correlations between the various tools.

DMLMA[®] Thresholds:

High correlation (.70+) = LS x KI

Moderate correlation (.50+) = LS x CR, CR x ACDW, CR x KI, KI x ACDW

Lower correlation (.30+) = PQ x LS, PQ x CR, PQ x KI

Validation of Key Indicator Systems

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Figure 1	Providers who fail the Key Indicator review	Providers who pass the Key Indicator review	Row Totals
Providers who fail the Comprehensive review	W	X	
Providers who pass the Comprehensive Review	Y	Z	
Column Totals			Grand Total

Annotations for Figure 1

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- A couple of annotations regarding Figure 1.
- **W + Z** = the number of agreements in which the provider passed the Key Indicator review and also passed the Comprehensive review.
- **X** = the number of providers who passed the Key Indicator review but failed the Comprehensive review. This is something that should not happen, but there is always the possibility this could occur because the Key Indicator Methodology is based on statistical methods and probabilities. We will call these False Negatives (FN).
- **Y** = the number of providers who failed the Key Indicator review but passed the Comprehensive review. Again, this can happen but is not as much of a concern as with "X". We will call these False Positives (FP).

National Validation Data

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Figure 2	Providers who fail the Key Indicator review	Providers who pass the Key Indicator review	Row Total
Providers who fail the Comprehensive review	25	1	26
Providers who pass the Comprehensive Review	7	17	24
Column Total	32	18	50

Formula for Agreement Ratio

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- To determine the agreement ratio, we use the following formula:

$$\frac{A}{A + D}$$

- Where A = Agreements and D = Disagreements.

- Based upon Figure 2, A + D = 42 which is the number of agreements; while the number of disagreements is represented by 8 = 1 and 7 for a total of 8 disagreements. Putting the numbers into the above formula:

$$\frac{42}{42 + 8}$$

Or

$$.84 = \text{Agreement Ratio}$$

- The False Positives (FP) ratio is .14 and the False Negatives (FN) ratio is .02. Once we have all the ratios we can use the ranges in Figure 3 to determine if we can validate the Key Indicator System. The FP ratio is not used in Figure 3 but is part of the Agreement Ratio.

Thresholds for Validating Key Indicators for Licensing Rules

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Agreement Ratio Range	False Negative Range	Decision
(1.00) – (.90)	.05+	Validated
(.89) – (.85)	.10 - .06	Borderline
(.84) – (.00)	.11 or more	Not Validated

Phase 1 Evaluation Plan

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Areas of Evaluation	Measures	Reporting Timeline
Efficiency & Effectiveness	<ul style="list-style-type: none"> % of Tier 1 centres remained with a shortened checklist % of Tier 2 centres remained with a shortened checklist Time spent on the core vs. full renewal checklist Time spent on the new vs. current monitoring checklists Qualitative feedback re: time for program discussions 	End of the Phase 1, April 2016
Validity/Reliability of Inspection Tools	<ul style="list-style-type: none"> Correlation between the full and core renewal checklists with respect to observed non-compliances 	End of the Phase 1, April 2016
Preliminary Inter-Rater Reliability	<ul style="list-style-type: none"> Kappa between each pair of PA and Sr. PA on the Core checklist % Agreement between each pair of PA and Sr. PA on the Core checklist 	Monthly, Throughout Phase 1
IT Functionality	<ul style="list-style-type: none"> # of defects reported and resolved # change requests reported and implemented Reported ease of use by Sr. PAs (obtained via teleconference) 	Throughout Phase 1
Business Process	<ul style="list-style-type: none"> Qualitative feedback from Sr. PAs on what works well or does not work well with the business process 	Weekly (via teleconference), Throughout Phase 1

Summary of Phase 1 Evaluation Results

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Areas of Evaluation	Measures	Phase 1 Findings
Efficiency & Effectiveness	<ol style="list-style-type: none"> % of Tier 1 centres remained with a shortened checklist % of Tier 2 centres remained with a shortened checklist Time spent on the core vs. full renewal checklist Time spent on the new vs. current monitoring checklists Qualitative feedback re: time for program discussions 	<ol style="list-style-type: none"> 61% 24% Inconclusive 4.5 vs. 4 hrs Positive feedback
Validity/Reliability of Inspection Tools	<ol style="list-style-type: none"> Correlation between the full and core renewal checklists with respect to observed non-compliances 	<ol style="list-style-type: none"> $r = .96$ ($p < .0001$)
Preliminary Inter-Rater Reliability	<ol style="list-style-type: none"> Kappa between each pair of PA and Sr. PA on the Core checklist % Agreement between each pair of PA and Sr. PA on the Core checklist 	<ol style="list-style-type: none"> % Agreement = 84% Kappa = .72
IT Functionality	<ol style="list-style-type: none"> # of defects reported and resolved # change requests reported and implemented Reported ease of use by Sr. PAs (obtained via teleconference) 	<ol style="list-style-type: none"> 8 defects 6 change requests Positive feedback
Business Process	<ol style="list-style-type: none"> Qualitative feedback from Sr. PAs on what works well or does not work well with the business process 	<ol style="list-style-type: none"> Mixed feedback

Next Steps: Short and Long-Term Evaluation Plan

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Areas of Evaluations	Measures	Reporting Timeline
Effectiveness	<ul style="list-style-type: none"> Change in # of non-compliances by Tier Change in # and % of centres in Tier Ongoing feedback from Sr. PAs/PAs re: effectiveness of approach Ongoing feedback from Sr. PAs/PAs re: time for program discussions Feedback from licensees (e.g. survey) on new approach % of Tier 1 inspections that remained with the core checklist % of Tier 2 inspections that remained with the core checklist 	Throughout Year 1 Year 3 Year 5
Efficiency	<ul style="list-style-type: none"> Time spent on the core vs. full renewal checklists % and length of expired licences 	Frequency TBC during Year 1 Year 3 Year 5
Validity/Reliability of Inspection Tools	<ul style="list-style-type: none"> Recalculating the Key Indicators and the core checklist using full renewal inspections for a 5% sample of centres across all three tiers and regions 	Post regulation finalization Every 3-5 years
Inter-Rater Reliability	<ul style="list-style-type: none"> Kappa and % Agreement for Sr. PAs (target of 90% agreement) Kappa and % Agreement for PAs (target of 85% agreement) Focus group with multi-site businesses with programs in different regions re: consistency across PAs 	Sr. PAs: April-September 2016; Throughout Year 1; Year 3 and Year 5

Differential Monitoring Model

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Key Elements

- ▣ **Program Compliance (PC)** generally represented by a state's child care licensing health & safety system or at the national level by *Caring for Our Children*.
- ▣ **Program Quality (PQ)** generally represented by a state's QRIS, or at the national level by Accreditation (*NAEYC*, *NECPA*), *Head Start Performance Standards*, *Environmental Rating Scales*, *CLASS*, etc..
- ▣ **Risk Assessment (RA)** generally represented by a state's most critical rules in which children are at risk of mortality or morbidity, or at the national level by *Stepping Stones*.

Differential Monitoring Model (cont)

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Key elements (continued)

- ▣ **Key Indicators (KI)** generally represented by a state's abbreviated tool of statistically predictive rules or at the national level by *13 Indicators of Quality Child Care* and *NACCRRA's We CAN Do Better Reports*.
- ▣ **Professional Development (PD)** generally represented by a state's technical assistance/training/professional development system for staff.
- ▣ **Child Outcomes (CO)** generally represented by a state's *Early Learning Network Standards*.

Differential Monitoring Benefits

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- ▣ **Differential Monitoring (DM)** benefits to the state are the following:
 - ▣ Systematic way of tying distinct state systems together into a cost effective & efficient unified valid & reliable logic model and algorithm.
 - ▣ Empirical way of reallocating limited monitoring resources to those providers who need it most.
 - ▣ Data driven to determine how often to visit programs and what to review, in other words, should a comprehensive or abbreviated review be completed.

Program Compliance/Licensing (CI)(PC)

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- ▣ These are the comprehensive set of rules, regulations or standards for a specific service type.
- ▣ *Caring for Our Children (CFOC)* is an example.
- ▣ *Head Start Performance Standards* is an example.
- ▣ Program meets national child care benchmarks from *NACCRRA's We CAN Do Better Report*.
- ▣ No complaints registered with program.
- ▣ Substantial to full compliance with all rules.

Advantages of Instrument Based Program Monitoring (IPM)

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- ▣ Cost Savings
- ▣ Improved Program Performance
- ▣ Improved Regulatory Climate
- ▣ Improved Information for Policy and Financial Decisions
- ▣ Quantitative Approach
- ▣ State Comparisons

State Example of Violation Data (Fiene, 2013d)

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Region	Centers		Homes	
	Violations*	Number	Violations*	Number
1	9.30	109	2.42	117
2	8.32	191	4.63	120
3	5.31	121	3.94	138
4	5.57	61	3.02	125

* = Average (Mean)

License Type	Centers		Homes	
	Violations*	Number	Violations*	Number
Initial	7.44	36	3.35	20
Renewal	7.07	368	3.53	469
Amendment	9.51	55	4.00	2
Correction	6.71	14	3.00	8
Temporary	11.22	9	4.90	1

* = Average (Mean)

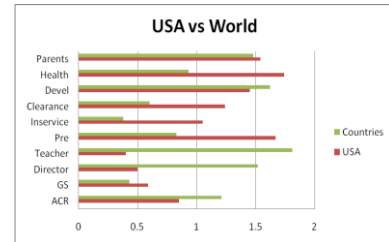
Head Start: Content Area Correlations (Fiene, 2013c)

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	CHS	ERSEA	FCE	FIS	GOV	SYS
CDE	.33**	.26**	.06ns	.14**	.13*	.33**
CHS		.29**	.18**	.09ns	.25**	.51**
ERSEA			.15**	.10*	.27**	.38**
FCE				.01ns	.17**	.23**
FIS					.13*	.23**
GOV						.38**

International Study of Child Care Rules (Fiene, 2013a)

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International Study Benchmarks

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Benchmark	Countries	USA	Significance
ACR (R1)	1.1220	0.8602	not significant
GS (R2)	0.4913	0.3885	not significant
Director (R3)	1.2693	0.3000	$t = 7.105, p < .0001$
Teacher (R4)	1.4363	0.4038	$t = 7.632, p < .0001$
Preservice (R5)	0.9375	1.4731	$t = 4.986, p < .001$
Inservice (R6)	0.6363	1.0481	$t = 2.534, p < .02$
Childcenter (R7)	0.8994	1.3604	$t = 3.705, p < .01$
Development (R8)	1.4056	1.4519	not significant
Health (R9)	0.9844	1.7404	$t = 6.157, p < .0001$
Parent (R10)	1.5000	1.5385	not significant

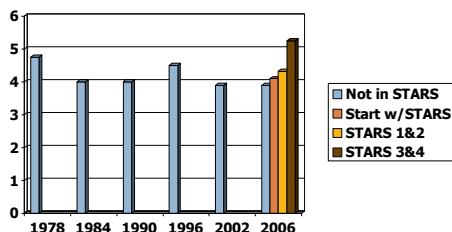
Parent = Parent involvement (R10)
 Health = Health and safety recommendations (R9)
 Development = Six developmental domains (R8)
 Classroom = Background check (R7)
 Inservice = 24 hours of ongoing training (R6)
 Preservice = Initial orientation training (R5)
 Teacher = Lead teacher has CDA or Associate degree (R4)
 Director = Director has leadership degree (R3)
 GS = Group size NAEYC Accreditation Standards met (R2)
 ACR = Staff child ratios NAEYC Accreditation Standards met (R1)

Program Quality (PQ)

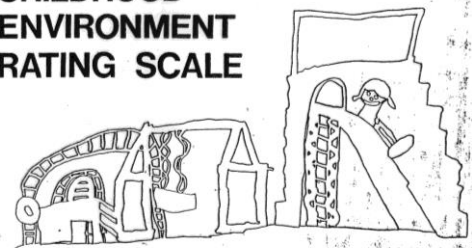
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- Generally Quality Rating and Improvement Systems (QRIS) and/or Accreditation systems either used separately or together.
- Program has attained at least a 5 on the various ERS's or an equivalent score on the CLASS.
- Program has moved through all the star levels within a five year timeframe.
- Percent of programs that participate.
- Generally PQ builds upon PC/Licensing system.

Keystone STARS ECERS Comparisons to Previous Early Childhood Quality Studies (Barnard, Smith, Fiene & Swanson (2006))



EARLY CHILDHOOD ENVIRONMENT RATING SCALE



THELMA HARMS

RICHARD M. CLIFFORD

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NAME OF PARTY: _____ SEX: _____ AGE OF CHILD: _____ (years to child) NAME OF HOME: _____ POSITION OF HOME: _____ DATE: _____

1. Greeting/leaving 1 2 3 4 5 6 7	2. Naptime 1 2 3 4 5 6 7	3. Personal grooming 1 2 3 4 5 6 7	4. Feeding 1 2 3 4 5 6 7	5. Room arrangement 1 2 3 4 5 6 7	6. Understanding language 1 2 3 4 5 6 7
7. Use of materials 1 2 3 4 5 6 7	8. Sleeping/quiet time 1 2 3 4 5 6 7	9. Familytime (optional) 1 2 3 4 5 6 7	10. Feeding (optional) 1 2 3 4 5 6 7	11. Use of materials 1 2 3 4 5 6 7	12. Using language 1 2 3 4 5 6 7
Total Personal Care (Items 1-8)		Total Familytime (Items 9-10)		Total Feeding (Items 11-12)	

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ECERS/FDCRS By Type of Setting (Fiene, etal (2002)

Head Start	4.9
Preschool	4.3
Child Care Centers	3.9
Group Child Care Homes	4.1
Family Child Care Homes	3.9
Relative/Neighbor Care	3.7

ECERS Distribution By Type of Service—Head Start (HS), Child Care Center (CC), Preschool (PS)

	HS	CC	PS
Minimal (3.99 or less)	8%	62%	35%
Adequate (4.00-4.99)	46%	23%	44%
Good (5.00 or higher)	46%	15%	21%

ECERS/FDCRS and Education of the Provider

High School Diploma (24%)	3.8
Some College (24%)	4.1
Associate's Degree (17%)	4.2
Bachelor's Degree (31%)	4.3
Master's Degree (4%)	4.7

NECPA/ERS's/QRIS (Fiene, 1996)

	STAR 1	STAR 2	STAR 1 and 2 Combined	STAR 3	STAR 4
NECPA Score (without Infant/Toddler Section)	n = 21 Mean = 647.04 Range: 408.99 to 887.54 s.d.: 163.79	n = 4 Mean: 648.1 Range: 365.84 to 881.93 s.d.: 220.87	n = 25 Mean: 647.21 Range: 365.84 to 887.54 s.d.: 168.69	n = 2 Mean: 824.27 Range: 789.13 to 859.40 s.d.: 49.69	n = 23 Mean: 752.93 Range: 427.36 to 894.32 s.d.: 132.12
ECERS-R Score	n = 20 Mean: 3.92 Range: 2.40 to 5.68 s.d.: .97	n = 4 Mean: 3.52 Range: 3.45 to 3.66 s.d.: .094	n = 24 Mean: 3.86 Range: 2.40 to 5.68 s.d.: .896	n = 2 Mean: 5.67 Range: 5.45 to 5.88 s.d.: .304	n = 23 Mean: 5.35 Range: 2.95 to 6.36 s.d.: .867
NECPA Score (Infant/Toddler Only)	n = 6 Mean: 83.50 Range: 59 to 138 s.d.: 30.81	n = 1 Mean: 79.0	n = 7 Mean: 82.86 Range: 59.0 to 138.0 s.d.: 28.17	n = 0	n = 7 Mean: 134.0 Range: 102.0 to 163.0 s.d.: 21.66
ITERS-R	n = 9 Mean: 3.72 Range: 2.81 to 5.22 s.d.: .706	n = 1 Mean: 5.01	n = 10 Mean: 3.85 Range: 2.81 to 5.22 s.d.: .781	n = 1 Mean: 4.29	n = 12 Mean: 5.15 Range: 3.21 to 6.39 s.d.: .821

PC/PQ Conceptual Similarities

- 100% Compliance with child care health & safety rules = QRIS Block System.
- Substantial but not 100% Compliance with child care health & safety rules = QRIS Point.
- Both Licensing (PC) and QRIS (PQ) use rules/standards to measure compliance. Licensing rules are more structural quality while QRIS standards have a balance between structural and process quality.

Determining Compliance

67

- **Risk assessment**
- –Identify requirements where violations pose a greater risk to children, e.g., serious or critical standards
- –Distinguish levels of regulatory compliance
- –Determine enforcement actions based on categories of violation
- –*Stepping Stones to Caring for Our Children is an example of risk assessment (AAP/APHA/NRC, 2013)*
- **Key indicators**
- –Identify a subset of regulations from an existing set of regulations that statistically predict compliance with the entire set of regulations
- –Based on work of Dr. Richard Fiene (2002) – 13 indicators of quality
- –“Predictor rules”

National Center on Child Care Quality Improvement, Office of Child Care

Risk Assessment (RA)

68

- **Risk Assessment (RA) are those rules which place children at greatest risk of mortality or morbidity.**
- **Stepping Stones is example of Risk Assessment Tool and Approach.**
- **When Risk Assessment (RA) and Key Indicators (KI) described in next slide are used together, most cost effective and efficient approach to program monitoring.**
- **100% compliance with RA rules.**

State Example of Risk Assessment Tool

69

STATE OF CALIFORNIA DEPARTMENT OF SOCIAL SERVICES
FACILITY LICENSE

Facility Name: _____

Inspector Name: _____

Inspection Date: _____

Inspection Type: _____

Inspection Results:

Category	Compliant	Non-Compliant	Notes
Child Care			
Staffing			
Health & Safety			
Food & Nutrition			
Programs			
Physical Environment			
Transportation			
Financial			
Other			
TOTALS			

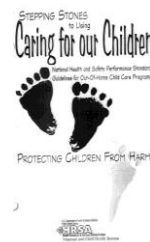
Inspector Signature: _____

Facility Signature: _____

Comments: _____

RA Example = Stepping Stones

70



13 Key Indicators/Stepping Stones Crosswalk with State Rules Template

71

13 Indicators/Stepping Stones Standard	State Licensing Rule	Analysis	Analysis Clarification	Recommendation	Next Steps

Key Indicators (KI)(Fiene & Nixon, 1985)

72

- **Key Indicators are predictor rules that statistically predict overall compliance with all rules.**
- **13 Indicators of Quality Child Care is an example of this approach.**
- **Most effective if KI are used with the Risk Assessment (RA) approach described on the previous slide.**
- **Must be 100% compliance with key indicator rules.**

Advantages of Key Indicators

73

- Quality of Licensing is maintained.
- Balance between program compliance and quality.
- Cost savings.
- Predictor rules can be tied to child outcomes.

Pre-Requisites for Key Indicators

74

- Licensing rules must be well written, comprehensive, and measureable.
- There must be a measurement tool in place to standardize the application and interpretation of the rules.
- At least one year's data should be collected.

How to Develop Key Indicators

75

- Collect data from 100-200 providers that represent the overall delivery system in the state.
- Collect violation data from this sample and sort into high (top 25%) and low (bottom 25%) compliant groups.
- Statistical predictor rules based upon individual compliance.
- Add additional rules.
- Add random rules.

Criteria for Using Key Indicators

76

- The facility had:
 - A regular license for the previous two years
 - The same director for the last 18 months
 - No verified complaints within the past 12 months
 - The operator has corrected all regulatory violations cited within 12 months prior to inspection
 - A full inspection must be conducted at least every third year
 - Not had a capacity increase of more than 10 percent since last full inspection
 - A profile that does not reveal a pattern of repeated or cyclical violations
 - No negative sanction issued within the past 3 years

Key Indicator Systems Summary

77

1980 - 2010

- Time savings only.
- Child care mostly.
- Child care benchmarking.
- Substantial compliance.
- Safeguards.
- Tied to outcomes study.
- Adult residential – PA.
- Child residential – PA.
- Risk assessment/weighting.

2011+

- Time and cost savings.
- All services.
- Benchmarks in all services.
- CC national benchmarks.
- Safeguards.
- Tied to outcomes study.
- National benchmarks.
- Inter-National benchmarks.
- Risk assessment/DMLMA.

Relationship of Comprehensive Reviews (CR) to Key Indicator (KI) or Risk Assessment (RA) Rule Non-Compliance

Key Indicator Rule Both Risk Assessment Rule



Prediction

Non-Compliance
2+ Rules = CR
1 Rule = Section
Absolute scoring 1/0

Non-Compliance
1 Rule = CR

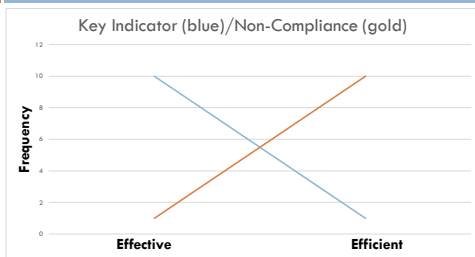
Risk to Children

Point System = CR
1 Extreme Rule = CR
Relative scoring 1/0

78

Key Indicator/Non-Compliance Relationship

79



Key Indicator Formula Matrix

80

Use data from this matrix in the formula on the next slide in order to determine the phi coefficients.

	Providers In Compliance with specific standard	Programs Out Of Compliance with specific standard	Row Total
High Group = top 25%	A	B	Y
Low Group = bottom 25%	C	D	Z
Column Total	W	X	Grand Total

Key Indicator Matrix Expectations

81

- $A + D > B + C$
- $A + D = 100\%$ is the best expectation possible.
- If **C** has a large percentage of hits, it increases the chances of other areas of non-compliance (False positives).
- If **B** has a large percentage of hits, the predictive validity drops off considerably (False negatives).

Key Indicator Statistical Methodology

82

$$\phi = (A)(D) - (B)(C) \div \sqrt{(W)(X)(Y)(Z)}$$

A = High Group + Programs in Compliance on Specific Compliance Measure.
 B = High Group + Programs out of Compliance on Specific Compliance Measure.
 C = Low Group + Programs in Compliance on Specific Compliance Measure.
 D = Low Group + Programs out of Compliance on Specific Compliance Measure.

W = Total Number of Programs in Compliance on Specific Compliance Measure.
 X = Total Number of Programs out of Compliance on Specific Compliance Measure.
 Y = Total Number of Programs in High Group.
 Z = Total Number of Programs in Low Group.

Key Indicator Coefficient Ranges

83

KI Coefficient Range	Characteristic of Indicator	Decision
(+1.00) – (+.26)	Good Predictor - Licensing	Include
(+1.00) – (+.76)	Good Predictor - QRIS	Include
(+.25) – (-.25)	Unpredictable - Licensing	Do not Include
(+.75) – (-.25)	Unpredictable - QRIS	Do not Include
(-.26) – (-1.00)	Terrible Predictor	Do not Include

Examples of Key Indicator Applications

84

- Health and Safety Licensing Key Indicators.
- Stepping Stones Key Indicators
- Office of Head Start Key Indicators.
- Accreditation Key Indicators – NECPA – National Early Childhood Program Accreditation.
- Environmental Rating Scale Key Indicators – Centers.
- Environmental Rating Scale Key Indicators – Homes.
- Caregiver Interaction Scale Key Indicators.
- Quality Rating & Improvement System Key Indicators – QualiStar.
- Footnote: Child & Adult Residential Care Key Indicators.
- Footnote: Cruising Industry in general and Royal Caribbean in particular.

Examples of Health & Safety Key Indicators

(Fiene, 2002a, 2003, 2007, 2013, 2014)

85

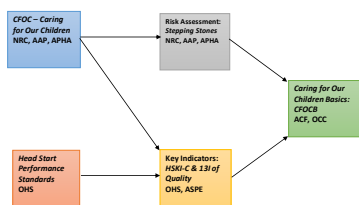
- Program is hazard free in-door and out-doors.
- Adequate supervision of children is present.
- Qualified staff.
- CPR/First Aid training for staff.
- Hazardous materials are inaccessible to children.
- Staff orientation and training.
- Criminal Record Checks.
- Ongoing monitoring of program
- Child immunizations

Caring for Our Children Basics (2015)

86

- Stepping Stones 3 (2013)
- Senate Bill 1086 (2014)
- Notice for Proposed Rule Making to Amend CCDF Regulations (2013)
- 27 Indicators from Head Start Program Standards (2014)
- 15 Key Indicators from Stepping Stones 3 (Fiene)(2013)
- 77 Observable Health and Safety Standards for Early Care and Education Providers from Caring for Our Children (Alkon)(2014)

RELATIONSHIP OF KEY INDICATORS/RISK ASSESSMENT TOOLS AND CARING FOR OUR CHILDREN BASICS (2015)



87

Federal Legislation

88

- In the House of Representatives, U. S., September 15, 2014. Resolved, That the bill from the Senate (S. 1086) entitled "An Act to reauthorize and improve the Child Care and Development Block Grant Act of 1990, and for other purposes," do pass with the following
- SECTION 1. SHORT TITLE. 1 This Act may be cited as the "Child Care and Development Block Grant Act of 2014".

QRIS Key Indicators – CO. QualiStar

89

- The program provides opportunities for staff and families to get to know one another.
- Families receive information on their child's progress on a regular basis, using a formal mechanism such as a report or parent conference.
- Families are included in planning and decision making for the program.

The Key Indicators from Stepping Stones (3rd Edition)

90

- 1.1.1.2 - Ratios for Large Family Child Care Homes and Centers
- 1.3.1.1 - General Qualifications of Directors
- 1.3.2.2 - Qualifications of Lead Teachers and Teachers
- 1.4.3.1 - First Aid and CPR Training for Staff
- 1.4.5.2 - Child Abuse and Neglect Education
- 2.2.0.1 - Methods of Supervision of Children
- 3.2.1.4 - Diaper Changing Procedure
- 3.2.2.2 - Handwashing Procedure
- 3.4.3.1 - Emergency Procedures
- 3.4.4.1 - Recognizing and Reporting Suspected Child Abuse, Neglect, and Exploitation
- 3.6.3.1 - Medication Administration
- 5.2.7.6 - Storage and Disposal of Infectious and Toxic Wastes
- 6.2.3.1 - Prohibited Surfaces for Placing Climbing Equipment
- 7.2.0.2 - Unimmunized Children
- 9.2.4.5 - Emergency and Evacuation Drills/Exercises Policy

Development of Head Start Key Indicators

91

- Interest in streamlining the monitoring protocol – Tri-Annual Reviews.
- Selected a representative sample from the overall Head Start data base.
- The Head Start monitoring system is an excellent candidate for developing key indicators and differential monitoring system:
 - Highly developed data system to track provider compliance history.
 - Well written, comprehensive standards.
 - Monitoring Protocols in place for collecting data.
 - Risk assessment system in use.
 - Program quality (CLASS) data collected.
- Example of a national system using key indicators.
- Head Start has all the key elements present from the Differential Monitoring Model as presented earlier.

Head Start Key Indicators (Fiene, 2013c)

92

CM	Phi	ES	CO	IS	Total Violations
CDP4.1	.28***	.10*	ns	ns	.30***
CHS1.1	.39***	.15**	.16**	ns	.39***
CHS1.2	.33***	.18**	.15**	.10*	.36***
CHS2.1	.49***	.18**	.15**	ns	.54***
CHS3.10	.39***	.11*	.11*	ns	.24***
PRG2.1	.31***	.11*	ns	ns	.46***
SYS2.1	.47***	.15**	.16**	.14**	.55***
SYS3.4	.58***	.13*	.10*	ns	.36***

* $p < .05$ ** $p < .01$ *** $p < .001$

Head Start Key Indicators Sample Content

93

CDM-1	The program hires teachers who have the required qualifications, training, and experience.	1304.20(f), 648A(a)(1), 648A(a)(2)(B)(i), 648A(a)(2)(B)(ii), 648A(a)(2)(B)(iii)
CHS1.1	The program engages parents in obtaining from a health care professional a determination of whether each child is up to date on a schedule of primary and preventive health care (including dental) and assists parents in bringing their children up to date when necessary and keeping their children up to date as required.	1304.20(a)(1)(i), 1304.20(a)(1)(B)(a), 1304.20(a)(1)(B)(b)
CHS1.2	The program ensures that each child with a known, observable, or suspected health condition, or developmental problem receives follow-up and further testing, examination, and treatment from a licensed or certified health care professional.	1304.20(a)(1)(i), 1304.20(a)(1)(B)(a), 1304.20(a)(1)(B)(b)
CHS2.1	The program, in collaboration with each child's parent, performs or obtains the required biometrically and age-appropriate screening to identify children regarding children who are at elevated risk of any one the program's eligible children on how to use the screening results, and use multiple sources of information to make appropriate referrals.	1304.20(a)(2), 1304.20(a)(3), 1304.20(a)(4), 1304.20(a)(5)
CHS3.10	Monitoring, repair, safety of facility and equipment	1304.20(a)(7)
PRG1.1	Members of the governing body and the Policy Council receive appropriate training and technical assistance to ensure that members understand information they receive and can provide effective oversight, make appropriate decisions for, and participate in programs of the Head Start agency.	642(a)(3)
STG1.1	The program established and regularly implements a process of ongoing monitoring of its operations and services, including delegate oversight, in order to ensure compliance with Federal regulations, adherence to its own program procedures, and progress towards the goals developed through its Self-Assessment process.	1304.21(b)(2), 641A(a)(3)
STG2.4	Prior to employing an individual, the program obtains a Federal, State, or Tribal criminal record check covering all jurisdictions where the program provides Head Start services to children, Federal, State, or Tribal criminal record check as required by the law of the jurisdiction, where the program provides Head Start services; Criminal record check as otherwise required by Federal law.	648A(a)(2)(B)(i), 648A(a)(2)(B)(ii), 648A(a)(2)(B)(iii)

HSKI-C Monitoring Protocol

94

- Administration for Children and Families
- U. S. Department of Health and Human Services
- Office of Head Start
- Head Start Key Indicator-Compliant (HSKI-C) Monitoring Protocol for 2015
- September 8, 2014

Conceptual Similarities Between Licensing & QRIS and Key Indicator Methodology

95

- 100% Compliance with child care health & safety rules = QRIS Block System. *Cannot use Key Indicators.*
- Substantial but not 100% Compliance with child care health & safety rules = QRIS Point. *Can use Key Indicators.*
- Both Licensing and QRIS use rules/standards to measure compliance. Licensing rules are more structural quality while QRIS standards have a balance between structural and process quality. Both rules and standards can be used within the Key Indicator methodology.

Other Examples of Key Indicators

96

- CIS
 - Item 5 – Excited about Teaching
 - Item 7- Enjoys Children
 - Item 12 – Enthusiastic
- FDCRS
 - Item 4 – Indoor Space Arrangement
 - Items 14b, 15b, 16 – Language
 - Item 18 – Eye hand Coordination
- ECERS
 - Item 16 – Children Communicating
 - Item 31 – Discipline

Key Indicator (KI) Formula Matrix for ECERS Item 16 – Children Communicating

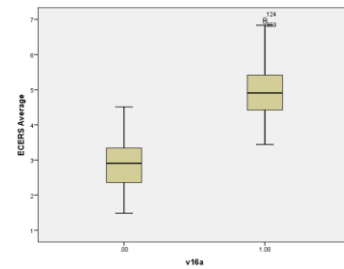
97

These data are taken from a 2002 Program Quality Study (Fiene, et al) completed in Pennsylvania. The pbs coefficient was 1.00. The first time this has occurred in generating key indicators. It was replicated in a 2006 QRIS – Keystone STARS Evaluation.

	Providers with a 5 or higher on Item 16	Programs with a 3 or less on Item 16	Row Total
High Group – 5.00+	117	0	117
Low Group – 3.00 or less	0	35	35
Column Total	117	35	152

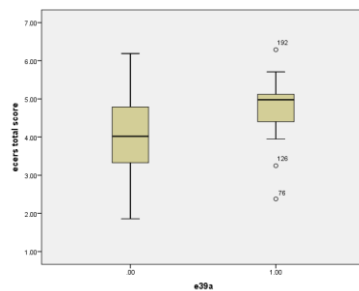
Box Plot of ECERS Item 16

98



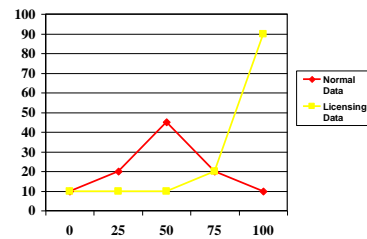
Box Plot of ECERS Item 39

99



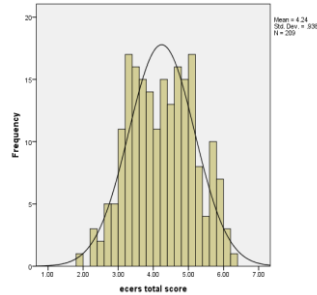
Normal & Skewed Data

100



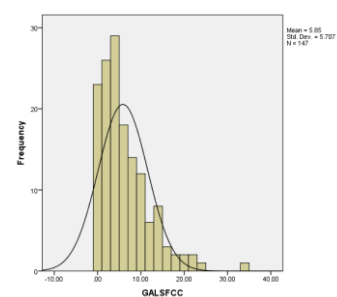
ECERS Total Scores

101



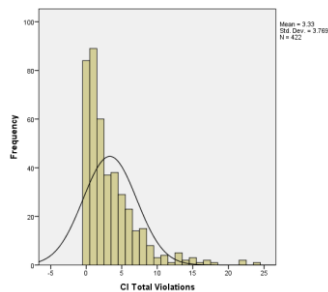
State's Family CC Home Licensing

102



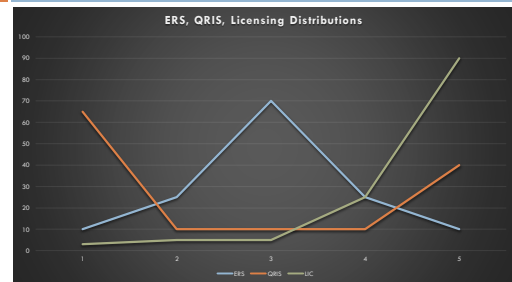
Head Start Performance Standards

103



ERS, QRIS, Licensing Comparisons

104



Dichotomization & Skewed Data

105

- When data are extremely skewed as is the case with licensing data, dichotomization of data is warranted.
- Skewed licensing data has a strong possibility of introducing very mediocre programs into the high group which will make it difficult to always identify the best programs.
- It is much easier to identify problem programs in a skewed data distribution.

Differential Monitoring Options

106

- **Reward good compliance:**
 - –Abbreviated inspection – if no serious violations, for a period of time
 - –Fewer full compliance reviews if compliance record is strong
- **Response to non-compliance:**
 - –Additional monitoring visits
 - –Technical assistance
- **The number of core rule categories cited and the assigned risk level determines the annual compliance level. (Georgia)**
- **Determine how often particular rules are included in inspections. Rules that pose the most risk of harm to children if violated are reviewed during all inspections. (Virginia)**

National Center on Child Care Quality Improvement, Office of Child Care

Provider Outcomes to Determine Differential Monitoring (DM)

107

- Fully licensed – substantial/full compliance.
- Potentially accredited (NAEYC/NECPA).
- Highest star rating.
- Cost effective and efficient delivery system.
- Little turnover of staff and director.
- Fully enrolled.
- Fund surplus.
- *The above results determine the number of times to visit & what to review and resources allocated.*

Differential Monitoring (DM) Allocation: An Example

108

- **Absolute System – One size fits all.**
 - 25% of providers need additional assistance & resources.
 - Other 75% receive the same level of monitoring services without differential monitoring based upon past compliance history. No additional services available.
- **Relative System – Differential Monitoring.**
 - 25% of providers need additional assistance & resources.
 - 25% have a history of high compliance and are eligible for Key Indicator/Abbreviated Monitoring visit. Time saved here is reallocated to the 25% who need the additional assistance & resources.
 - 50% receive the same level of monitoring services because they are not eligible for Key Indicators nor are they considered problem providers.

Monitoring Tools

109

- • **26 States use differential monitoring**
- – Increased from 11 States in 2005
- • **Most States report using abbreviated compliance forms**
- • **Nearly all States provide technical assistance during monitoring activities**
- – 45 percent report assisting facilities to improve quality beyond licensing regulations

National Center on Child Care Quality Improvement, Office of Child Care

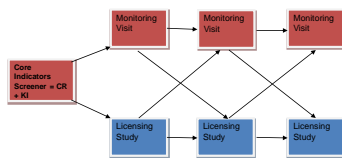
Program Monitoring Questions?

110

- Generalist versus Specialists Assessors.
- General (SS3) versus Special Standards (Licensing, QRIS, HSPS).
- How Key Indicators can be used?
 - KI = Generalists.
 - CI = Specialists.
- Based upon approach from previous slide, discussion should be generalist + specialist rather than generalist or specialist.

Differential Monitoring (DM) Example (Fiene, 2013e)

111



Compliance Decisions:
 Core Indicators - Core Rules - Key Indicators - the next visit is a Monitoring Visit. Every 3-4 years a full Licensing Study is conducted.
 Core Indicators (80%) - the next visit is a Licensing Study where all rules are reviewed.
 Compliance - 90%+ with all rules which indicates compliance with all rules and 100% with Core Indicators. The next visit is a Monitoring Visit.
 Non-compliance - less than 90% with all rules which indicates lower compliance with all rules. The next visit is a Licensing Study.

Math Model for Computing ACR

112

- $CH = (NC (TH+TO)) / 2 / (1/TA)$
- Where:
 - CH = Contact Hours
 - NC = total number of children on the maximum enrollment day.
 - TO = total number of hours the center is open.
 - TH = total number of hours at full enrollment.
 - TA = total number of teaching staff.

Professional Development (PD)

(Fiene, 1995, Fiene, etal, 1998)

113

- All staff have CDA or degrees in ECE.
- Director has BA in ECE.
- All staff take 24 hours of in-service training/yr.
- Mentoring of staff occurs.
- Training/PD fund for all staff.
- Professional development/training/technical assistance (PD) linked to Differential Monitoring (DM) results.



Capital Area Early Childhood Training Institute
 Prevention Research Center for the Promotion of Human Development

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Mentoring

Individualized, on-site support to help child care staff implement the knowledge and skills they are receiving in classroom instruction.

Benefits:

- Building relationships.
- Effecting long term change in best practices.
- Providing a support system.



Relationship between Child Care Income and Quality Measures (Fiene, 2002b)

115

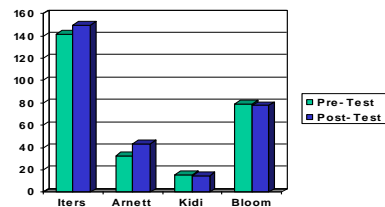
Correlations					
	ITERS	ARNETT	KIDI	BLOOM	DIR16
ITERS	1.000	.599**	.107	.368*	.661**
	Pearson Correlation				
	Sig. (2-tailed)				
N	49	45	31	32	37
ARNETT		1.000	.108	.507**	.483**
	Pearson Correlation				
	Sig. (2-tailed)				
N	45	46	29	30	34
KIDI			1.000	-.035	.311
	Pearson Correlation				
	Sig. (2-tailed)				
N	31	29	32	32	25
BLOOM				1.000	.451*
	Pearson Correlation				
	Sig. (2-tailed)				
N	32	30	33	33	26
DIR16					1.000
	Pearson Correlation				
	Sig. (2-tailed)				
N	37	34	25	26	39

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

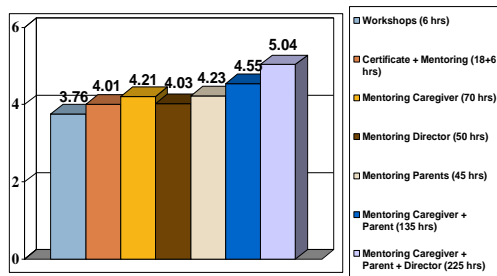
Infant-Toddler Teacher Mentoring

116



ITERS/HOME Post-Test Scores

117



Child Outcomes (CO)

118

- Health and safety:
 - Immunizations (95%+).
 - Child well-being (90% of key indicators).
- Developmental Outcomes:
 - Social (90% meeting developmental benchmarks).
 - Emotional (90% meeting developmental benchmarks).
 - Cognitive (90% meeting developmental benchmarks).
 - Gross and fine motor (90% meeting developmental benchmarks).

Correlation of Accreditation, Licensing, & Training with Child Outcomes

119

	Quality ECERS	Training EWECS/CECD	Accreditation NECPA/NAEYC	Licensing SS
Slosson	.23*	.33*/.34*	.29*/.30*	.19
CBI-INT	.25*	.15/.14	.41*/.21*	.08
TELD	.09	.28*/.22*	.31*/.35*	.22*
AU	.44*	.01/.11	.13/.04	.06
PBQ	.37*	.32*/.23*	.44*/.40*	.29*
CBI-SOC	.26*	.21*/.20*	.19/.23*	.18

. . p < .05

. . Kanton & Fiene (1997).

Key Element ECPQIM/DMLMA Publication Summary

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- PC = *Caring for Our Children* (AAP/APHA/NRC, 2012).
- PQ = *National Early Childhood Program Accreditation (NECPA)*(Fiene, 1996).
- RA = *Stepping Stones* (NRC, 2013).
- KI = *13 Indicators of Quality Child Care* (Fiene, 2002a).
- DM = *International Child Care & Education Policy* (Fiene, 2013a).
- PD = *Infant Caregiver Mentoring* (Fiene, 2002b).
- CO = *Quality in Child Care: The Pennsylvania Study* Kontos & Fiene, 1997).

Outstanding Issues

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- **Process versus Structural Quality Indicators**
- **Input/Processes versus Output/Outcomes**
- **Impact of Pre-K and QRIS on Licensing**
- **Inter-rater reliability still is a big issue contributing to inconsistent data collection.**

Methodological Issues

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- The need for states to routinely conduct reliability testing is vitally important to make sure that their licensing staff/inspectors are consistently measuring rules.
- The balancing between program compliance and program quality.
- Determining the most effective and efficient threshold is critical because as one becomes more efficient a loss of effectiveness does occur which can lead to an increase in false positives and negatives.

Lessons Learned

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- We have learned how to deal more effectively with very skewed data through dichotomization grouping of a high versus a low compliant groups.
- Risk assessment only focuses on compliance and high risk rules which generally are always in compliance.
- Key indicators focus on high and low compliance differences with these rules generally being somewhere in the middle range, not in compliance the majority of the time nor out of compliance the majority of the time.
- It continues to be a fact that all rules are not created equal nor are they administered equally.
- Most recently we have seen that when higher standards are applied, especially with Pre-K initiatives, this goes a long way in helping to discriminate the top performers from the mediocre performers.

Future Research

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- The crucial need for future research in the human services licensing and regulatory compliance area is for validation studies of the above approaches, Key Indicators and Risk Assessment methodologies to make certain that they are working as they should.
- Another validation study is needed regarding the relationship between program compliance and program quality. This is such an important finding about the plateau of program quality scores with increasing regulatory compliance as one moves from substantial compliance with all rules to full compliance with all rules.
- A clear delineation needs to occur to establish appropriate thresholds for the number of key indicator/predictor rules that provide a balance between efficiency and effectiveness that can diminish the number of false positives and especially false negatives.

Concluding Thoughts

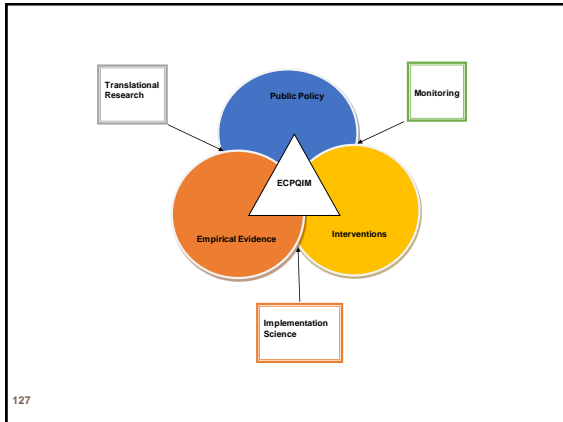
125

- *The relationship between regulatory compliance and quality is not linear.*
- *Regulatory compliance has difficulty in distinguishing the best programs from the mediocre programs.*
- *Regulatory compliance is very effective at identifying the worse programs.*
- *There still is the need to balance regulatory compliance with quality indicators.*
- *There is the need to validate differential monitoring approaches, such as risk assessment and key indicators.*
- *What is the ideal threshold for the number of key indicator/predictor rules so that we can maintain a balance of program monitoring effectiveness and efficiency.*
- *Risk assessment rules are usually in compliance because they place children at such risk of mortality or morbidity.*
- *More recent risk assessment systems have two components: severity and probability of occurrence.*
- *Key indicator/predictor rules are not usually in compliance but are not out of compliance a great deal.*
- *What is it about key indicator/predictor rules that make them so effective in discriminating between high and low performing programs.*
- *Licensing data are very skewed and because of this there is the need to dichotomize the data.*
- *There is very little variance in licensing data with generally only 20 rules separating the top compliant programs from the lowest compliant programs.*

Core Indicators – Final Thoughts

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- **Childhood Immunizations (PC)**
- **Director & Teacher Qualifications (PC, PQ)**
- **Mentoring/Coaching (PQ/PD)**
- **Family Engagement (PQ)**
- **Social-Emotional & Language Learning/Competencies (ELS, PD)**

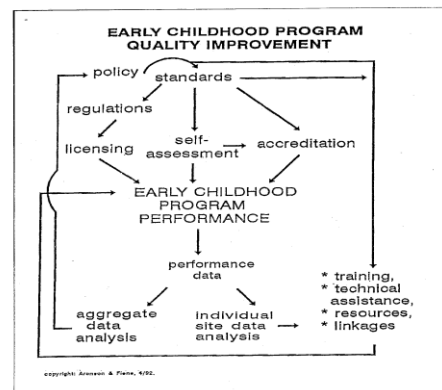


Early Childhood Program Quality Indicator Model (ECPQIM) Evolution

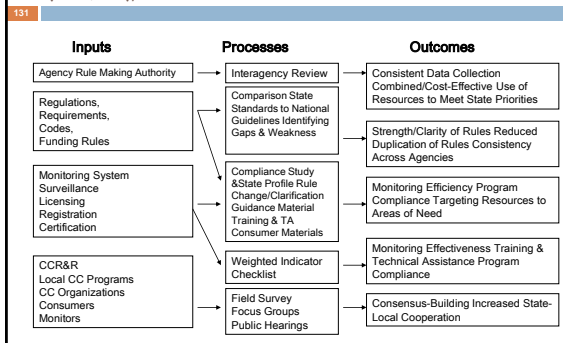
- Nixon Veto of Comprehensive Child Development Bill 1971. (ECPQIM0)
- FIDCR Moratorium 1981. (ECPQIM1)
- Reagan Block Grant Formula 1983. (ECPQIM1)
- CCDBG enacted 1991. (ECPQIM2)
- Caring for Our Children (CFOC) 1st Edition 1993. (ECPQIM2)
- Stepping Stones 1st Edition 1995. (ECPQIM2)
- Child Care Development Fund (CCDF) enacted 2001. (ECPQIM3)
- Child Care Aware First Report Card 2007. (ECPQIM3)
- OPRE/ACF Validation Brief 2012. (ECPQIM4)
- Differential Monitoring Logic Model (DMLMA) 2012-13. (ECPQIM4)
- CCDBG Bill, CCDF Rule, CFOC-Basics, OCC/ASPE Papers 2013-15. (ECPQIM4+)

129 ECPQIM 1- 4 Graphics

The following graphics represent the previous generations of ECPQIM 1-4 beginning in 1975 up to the present model (DMLMA, 2013).



ZERO TO THREE's Better Care for the Babies Project: A System's Approach to State Child Care Planning—Griffin/Fiene (1995), (ECPQIM 2), 1995 - 1999



Early Childhood Program Quality Indicator Model 3—Fiene & Kroh, (2000)

$$CO + PO = (PD + PC + PQ)/PM$$

Where:

CO = Child Outcomes

PO = Provider Outcomes

PD = Professional Development

PC = Program Compliance/Licensing

PQ = Program Quality/QRIS

PM = Program Monitoring

DIFFERENTIAL MONITORING LOGIC MODEL & ALGORITHM (DMLMA©) (Fiene, 2012): A 4th Generation ECPQM – Early Childhood Program Quality Indicator Model

$$CI \times PQ \Rightarrow RA + KI \Rightarrow DM + PD \Rightarrow CO$$

Definitions of Key Elements:

CI = Comprehensive Licensing Tool (Health and Safety)(*Caring for Our Children*)
PQ = *ECE&S-R, FQORS-R, CLASS, COPES* (caregiver/child interactions/Classroom Environment)
RA = Risk Assessment, (High Risk Rules)(*Stepping Stones*)
KI = Key Indicators (Predictor Rules)(*13 Key Indicators of Quality Child Care*)
DM = Differential Monitoring, (How often to visit and what to review)
PD = Professional Development/Technical Assistance/Training
CO = Child Outcomes (See Next Slide for PD and CO Key Elements)



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Early Childhood Program Quality Improvement and Indicator Models (ECPQI2M0-4+©)

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ECPQI2M0© 1972 – 1974. Regional Model; EMIS (Fiene, 1975).

ECPQI2M1©: 1975 – 1994. Qualitative to Quantitative; focus on reliability; data utilization; distinctions between program monitoring and evaluation; Key Indicators, Weighted Rules, & principles of licensing instrument design introduced. (Fiene, 1981; Fiene & Nixon, 1985).

ECPQI2M2©: 1995 – 1999. Policy Evaluation and Regulatory Systems Planning added to model. (Griffin & Fiene, 1995).

ECPQI2M3©: 2000 – 2011. Inferential Inspections & Risk Assessment added to model. (Fiene & Kroh, 2000).

ECPQI2M4/4+©: 2012 – present. Validation with expected Thresholds & Differential Monitoring added; Quality Indicators introduced. (Fiene, 2012, 2013b, 2015).

RELATED PUBLICATIONS AND REPORTS

135

- ❑ Barnard, Smith, Fiene, Swanson (2006). Evaluation of Pennsylvania's Keystone STARS Quality Rating and Improvement System, Pittsburgh: Pennsylvania, Office of Child Development.
- ❑ Class (1957). Licensing, unpublished manuscript, USC, University of Southern California.
- ❑ Fiene (2013a). A comparison of international child care and US child care using the Child Care Aware – NACCRRA (National Association of Child Care Resource and Referral Agencies) child care benchmarks, *International Journal of Child Care and Education Policy*, 7(1), 1-15.
- ❑ Fiene (2013b). *Differential monitoring logic model and algorithm*. Middletown: Pennsylvania, Research Institute for Key Indicators.
- ❑ Fiene (2013c). *Head Start Key Indicators*. Middletown: Pennsylvania, Research Institute for Key Indicators.
- ❑ Fiene (2013d). *Kansas Child Care Key Indicators*. Middletown: Pennsylvania, Research Institute for Key Indicators.
- ❑ Fiene (2013e). *Validation of Georgia's care rule differential monitoring system*. Middletown: Pennsylvania, Research Institute for Key Indicators.
- ❑ Fiene (2007). *Child Development Program Evaluation & Caregiver Observation Scale*, in T. Halle (Ed.), *Early Care and Education Quality Measures Compendium*, Washington, D.C.: Child Trends.
- ❑ Fiene (2003). *Licensing related indicators of quality child care*, *Child Care Bulletin*, Winter 2002-2003, pp. 12-13.
- ❑ Fiene (2002a). *Thirteen indicators of quality child care: Research update*. Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, US Department of Health and Human Services.
- ❑ Fiene (2002b). *Improving child care quality through an infant caregiver mentoring project*, *Child and Youth Care Forum*, 31(2), 75-83.

RELATED PUBLICATIONS AND REPORTS

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- ❑ Fiene, Iutorio, Johnson, & Koppel (1998). Child day care quality linked to opportunities for professional development: An applied community psychology example. *Community Psychologist*, 31(1), 10-11.
- ❑ Fiene (1996). Using a statistical indicator methodology for accreditation, in NAEYC Accreditation: A Decade of Learning and the Years Ahead, S. Bredekamp & R. Wiley, editors, Washington, DC: National Association for the Education of Young Children.
- ❑ Fiene (1995). Utilizing a statewide training system to improve child day care quality: The other system in a program quality improvement model. *Child Welfare*, Volume LXXIV, #6, November-December, 1189-1201.
- ❑ Fiene (1985). Measuring the effectiveness of regulations, *New England Journal of Human Services*, 5(2), 38-39.
- ❑ Fiene (1981). A new tool for day care monitoring introduced by children's consortium, *Evaluation Practice*, 1(2), 10-11.
- ❑ Fiene, Greenberg, Bergsten, Carl, Fegley, & Gibbons (2002). *The Pennsylvania early childhood quality settings study*, Harrisburg, Pennsylvania: Governor's Task Force on Early Care and Education.
- ❑ Fiene & Kroh (2000). *Licensing Measurement and Systems, NARA Licensing Curriculum*. Washington, D.C.: National Association for Regulatory Administration.
- ❑ Fiene & Nixon (1985). Instrument based program monitoring and the indicator checklist for child care, *Child Care Quarterly*, 14(3), 198-214.
- ❑ Griffin & Fiene (1995). *A systematic approach to policy planning and quality improvement for child care: A technical manual for state administrators*. Washington, D.C.: National Center for Clinical Infant Programs-Zero to Three.
- ❑ Kontos & Fiene (1987). *Child care quality, compliance with regulations, and children's development: The Pennsylvania Study, in Quality in Child Care: What Does Research Tell Us?*, Phillips, editor, Washington, D.C.: National Association for the Education of Young Children.
- ❑ Zellman, G. L. and Fiene, R. (2012). *Validation of Quality Rating and Improvement Systems for Early Care and Education and School-Age Care, Research-to-Policy, Research-to-Practice Brief OPRE 2012*. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

Resources

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For the interested reader, please consult the following excellent publications by the Assistant Secretary's Office for Planning and Evaluation, the Office of Child Care, and the National Resource Center for Health and Safety in Child Care that will provide additional insights into program monitoring in general, differential monitoring in particular, risk assessment and key indicator systems:

ACF/Caring for Our Children Basics:

<https://www.acf.hhs.gov/programs/ecd/caring-for-our-children-basics>

NRC/Stepping Stones to Caring for Our Children:

<http://nrckids.org/index.cfm/products/stepping-stones-to-caring-for-our-children-3rd-edition-w3/>

ASPE/Thirteen Key Indicators of Quality:

<https://aspe.hhs.gov/basic-report/13-indicators-quality-child-care>

ASPE/Monitoring White Paper:

http://aspe.hhs.gov/hsp/15/ecd_monitoring/rpt_ecd_monitoring.cfm

OCC/Differential Monitoring, Risk Assessment and Key Indicators:

https://childcaretoaspe.hhs.gov/sites/default/files/public/1408_differential_monitoring_tool_1.pdf

For Additional Information:

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The logo for nara RIKI, featuring the word "nara" in a lowercase sans-serif font with a red arc above it, and the word "RIKI" in a bold, uppercase sans-serif font below it.

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