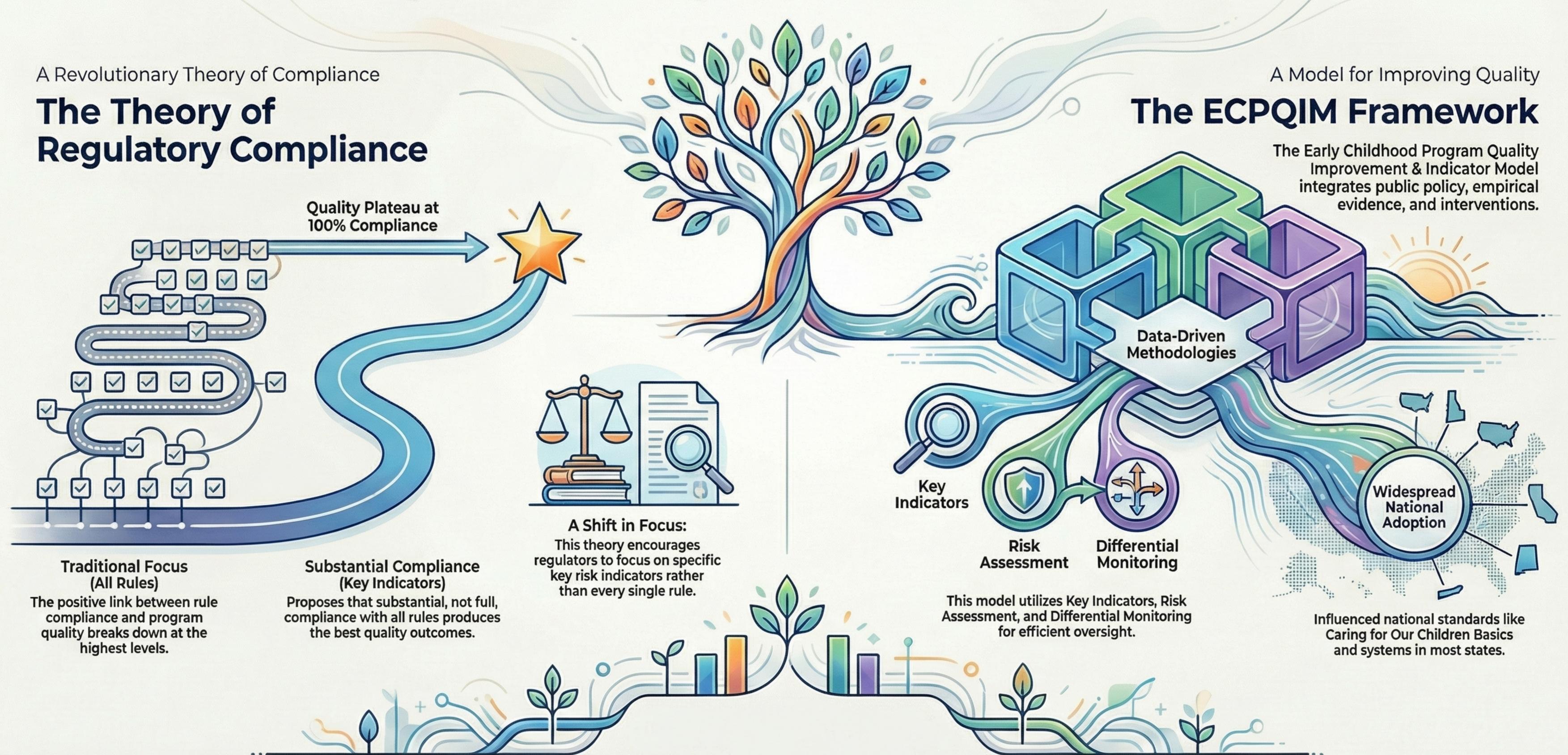
# A Legacy of Quality: Dr. Richard Fiene's Impact on Early Childhood Education



# DR. RICHARD FIENE:

### THE ARCHITECT OF MODERN CHILDCARE REGULATION





#### 1973-1975: Early Discoveriee

While directing the intant Toddlar Program at DRS-Greencboro, Ds Mane trentified "clustering" (or "harding" f behavior in tosotars, arror oypising this to improve adolt child robe standards.



#### 1975: Instrument-Based **Monitoring Begins**

Recruited by the Pennsylvania Governor's Office, he developed the beclogical **Meditoring information** Sarcere (COIC), the first version of his quality improvement model (ECPQIM).



#### 1979: Key Indicator Methodology is Born

Invited to Washington D.C. to consult on Federal Intersgency Day Eoro Requirements, SIA 19one Fart designed the "Key Indicator" methodology to swoamline compliance.

1970s: **FOUNDATIONAL** RESEARCH AND IIIDCARE RINGULATION

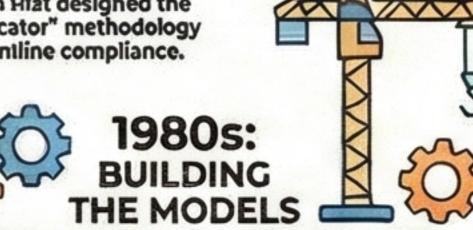




#### 1979: Key Indicator Methodology is Born

Insited to Washington U.S. to consolt on Federal Interegency Key Care Requirements. Dr. Haon Rizt designed the °Key indicator" methodology to streentline compliance.





#### 1980-1982: Federal **Grant Sapands Research**

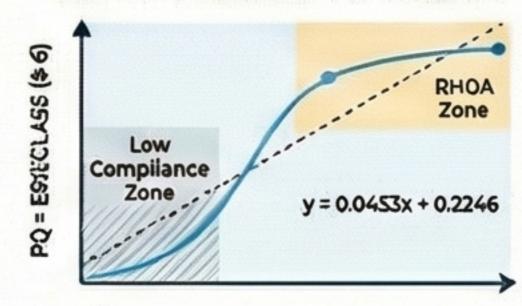
Received a federal grant for the Children's Services **Monitoring Transfer** Consertiom (ESMTF), a group of teams that helped devalop and discsminate his methodologies.



#### 1987: Theory of Regulatory **Compliance Published**

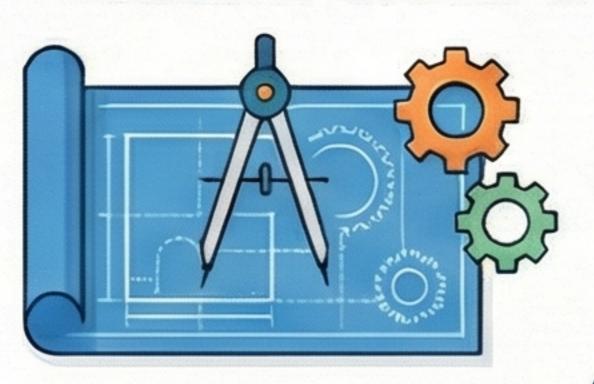
**Published his theory** suggesting subsatndal compliance with key rates, rather than full compliance with all rates, produces the kest outcomes for children.

#### Rule Compliance vs. Program Quality



#### PC \* % Rule Compliance (R.J20)

This chart shows a finear relationship between rule compliance and quality, but the effect pheasce ar high levels of compliance, supporting the focus on key rish indicators.





#### 1990s: NATIONAL **APPLICATION &** POLICY



#### **Development of National Systems** HIs methodologies formed the basis

for the **National Early Childhond Program** Accreditation (NESPA) sociam and "Itopping Stones to Caring for Our Children"



#### 1993: Tachling "The Trilomma"

Published "x Potential Solution to the Viilonima," an immostive policy paredigor for balancing the computing downads of Quality, Accessibility, and Affordability in childcare.



### Co-Founding of ECELS

Co-loonded the Early Childnood **Education Unkage System (ECELS)** with De Suton Acordon, fonssing on health and safety training.



#### 2000s: REFINEMENT AND STATEWIDE **IMPACT**



#### 2000: Joins **Penn State Full-Time**

Moved to a full-time faculty pesition at Penn State's Prevention **Research Center** and an-heunted the Cypital Area **Ginty Dicalhood** Research and **Training Institute** 

(EASC71).



#### of Quality Child Care" The U.S. Department

of Health and Human Services published his 13 Kay Indicators, which became a widely usad national guide for parents and policyinskers.



### 2010s-PRESENT: VALIDATION, LEGACY, AND LASTING IMPACT



#### 2015: A New Framework for **Validation**

Validation Brief; creating a national framework fer states to validate their licensing and QPIS systems (ECPQim Version a).



#### 2013: Founds Research Institute for Key Indicators (RIAI)

**Retired from Penn State** Go cathured the OPBE to start Kills, continuing his work on differential menicaring, risk assessment, and key indicators.



### 2015: Culmination in **National Standards**

The National Association for

## 2015: Culmination in **National Standards**

His research culminated in several key federal publications, including "Caring for Our Children BASICS" and the "Head Start Key Indicators".

#### Regulatory AeroInnaintion (MABA) aequired the infdlicatem property rights to his methodologies,

ensuring Oten 1Ebrie development and use.

#### **CORE MODELS & METHODOLOGIES**

influencing

Pennsyivenic's

**Keystone STARS** 

Placed a key role

in developing

and evaluating

Pennagivanie's

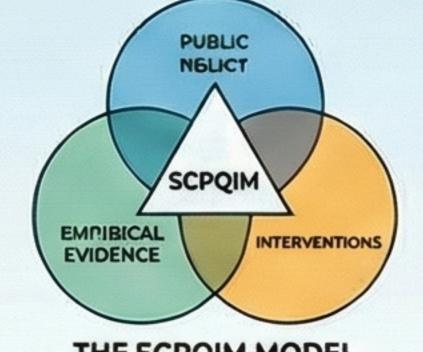
**Quality Rating and** 

improvement

fyåem (Q813), a

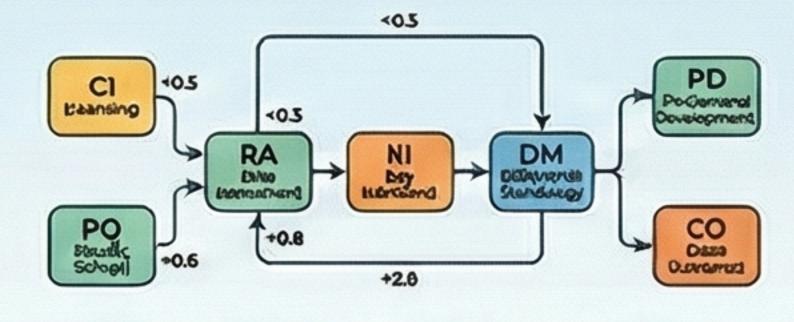
model for other

stales.



#### THE SCPQIM MODEL

A theeretical model plasing child care quality improvement (EEPotH) at the Intersection of Public Kottey, Craphical Bridence, and Intervonbens It bridges research and practice.



#### THE DIFFERENTIAL MONITORING LOGIC MODEL

A practical flowchart showing hew data from Brenzing (E1) and quality ratings (PO) infarve raise assessment (BA) and key Indicator (IIB teck). This cllows for forgeted "atllierential monitoring" (Gtl) in Imprase child outcomes (ED).

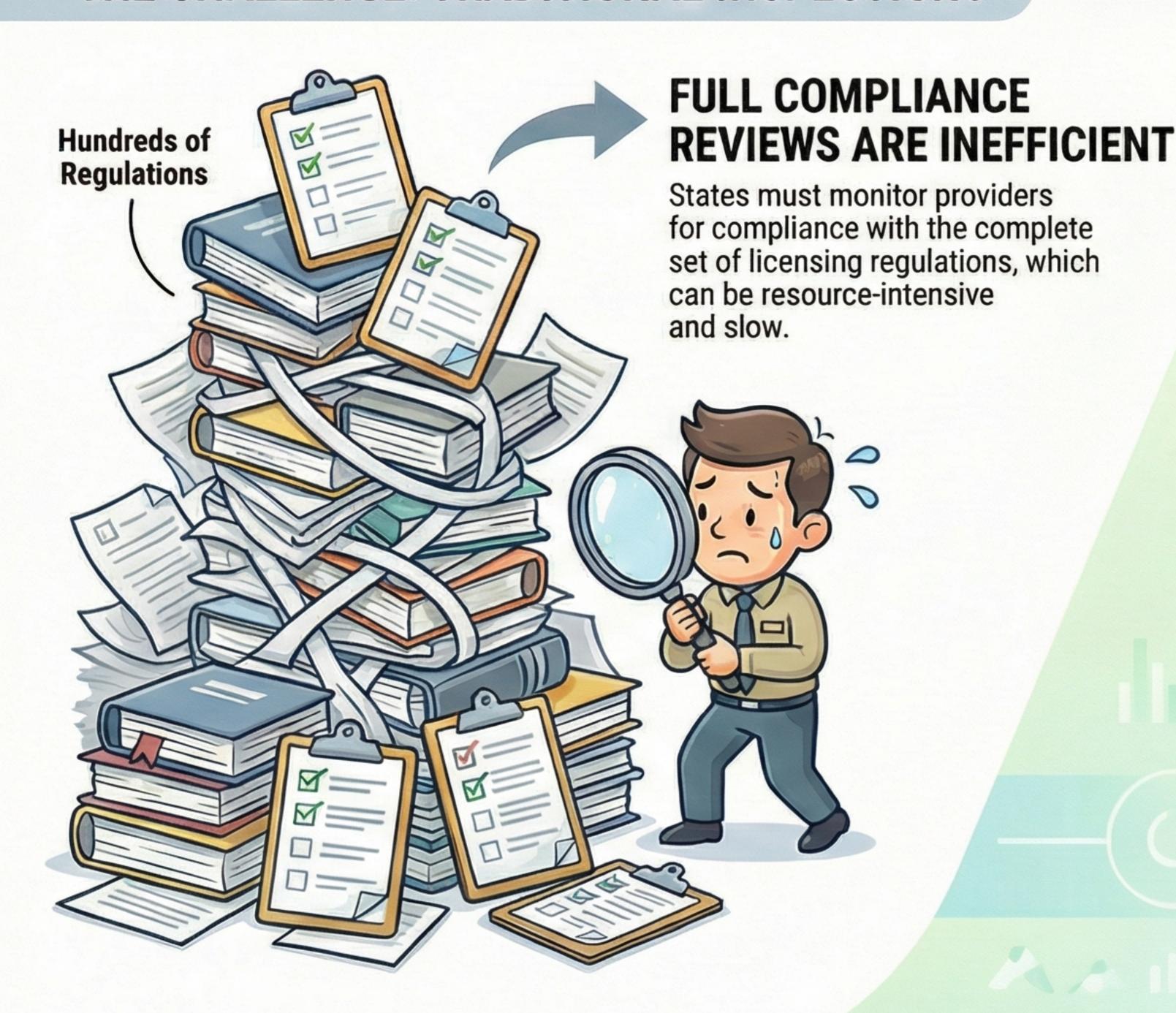


"I would like to be a voice for those who are our most vulnerable and feel they do not have a voice." - Dr. Rick Fiene

# The Fiene Method: A Smarter Approach to Child Care Monitoring

Dr. Richard Fiene's research pioneers a statistical methodology to streamline Child Care and Early Education (CCEE) licensing inspections, making them more efficient and effective by focusing on the regulations that best predict overall compliance.

### THE CHALLENGE: TRADITIONAL INSPECTIONS



### THE FIENE SOLUTION: DATA-DRIVEN MONITORING



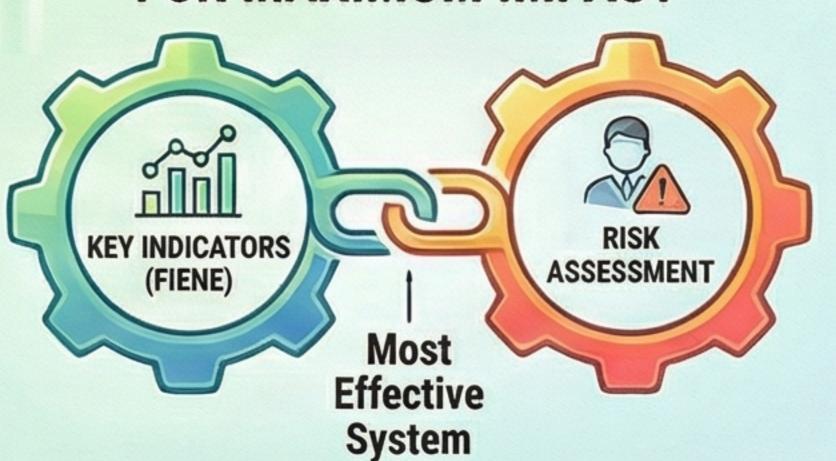
## INTRODUCING THE "KEY INDICATORS" APPROACH

Fiene developed the statistical mathod to identify a small subset of regulations that accurately predict overall compliance.

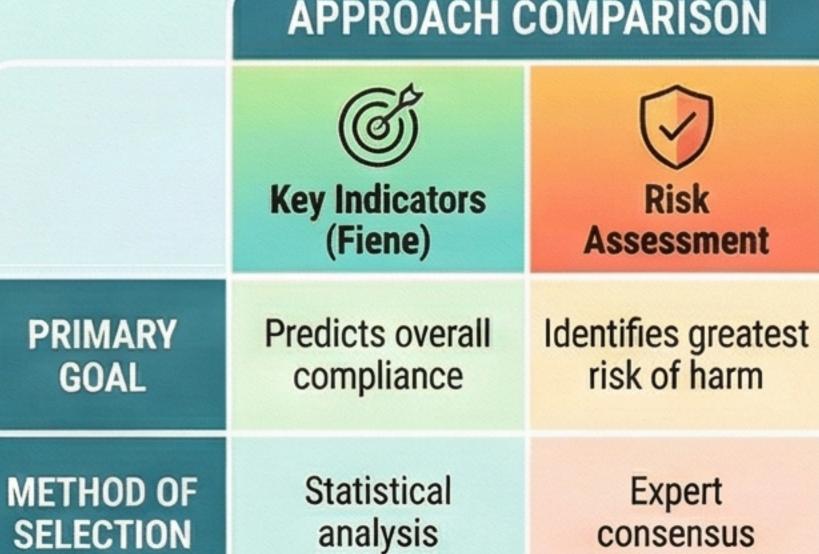
## **ENABLING EFFICIENT** "DIFFERENTIAL MONITORING"

This allows for abbreviated inspections, saving time and focusing resources where they are needed most.

### **COMBINING MODELS** FOR MAXIMUM IMPACT



### APPROACH COMPARISON



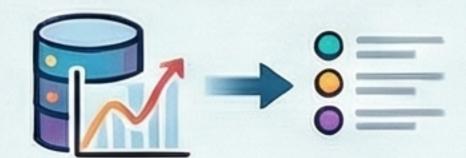
# The Fiene Approach: Smarter Child Care Licensing Through Data.



# The Key Indicators Approach: A Foundation for Efficiency A statistical method to pinpoint what matters most.

Developed by Dr. Fiens, Idantifies a small subest of regulations statistically shown to bost predict a provider's compliance with the full set of rules. (Source: Fiene, 2013a; Fiene & Kroh, 2000)

#### How it works: Data reveals the predictors.



Analyzes a state's actual compliance data to discover strongest indicators of overall provider compliance.



# Key indicators are consistent across different settings.

Research in Indiana showed considerable overlap in identified key indicators for centers, homes, and license-exempt homes, showing reliability.

(Source: Fiene, 20190)

### Fiene's Research in Action: State Examples



# Georgia: Validating the "Core Rule" System.

External review by Fiene confirmed 74 "core roles" (risk-assessment approach) successfully predicted overall compliance with 436 licensing regulations. (Source: Fiene, 2014a)



# Washington: A Hybrid Model for Monitoring.

Planned new inspection system, codeveloped by Stevens & Fiene, combines key indicators, highest-rish regulations, and a rotating sample of other rules. (Source: Stevens & Fiene, 2018)



# Indiana: Versatility Across Provider Types.

Fiene's work successfully identified key indicators for various settings, including conters, homes, and legally license-esempt homes, showing flexibility. (Source: Fiene, 20196)



# The goal is to focus on standards linked to quality and safety.

### A powerful pairing: Key Indicators + Risk Assessment.

Fiene and experts advocate combining data-driven Key Indicators with Risk Assessment to identify regulations posing the greatest risk of harm. (Source: Fiene, 2019b)



# The ECPQI2M4 Model: A comprehensive framework.

Integrates risk assessment, key indicators, and differential monitoring strategies. (Source: Fiene, 2016)



# GOAL: Focus on standards linked to quality and safety.

Helps licensing agencies shift offerts to standards empirically proven to be associated with program quality and child safety. (Source: Fiene, 2016)

### **Linking Licensing Compliance to Program Quality**



# Fewer violations are linked to higher quality ratings.

Fiene's research with Washington licensing data found higher QBIS atar levels were associated with fewer licensing violations. (Source: Fiene, 2017)



# Compliance with core rules predicted quality in Georgia's Pre-K.

Georgia validation study found compliance with "core rolee" was a predictor of program quality for clole-funded pre-kindergarten programs. (Source: Fiene, 2014a)



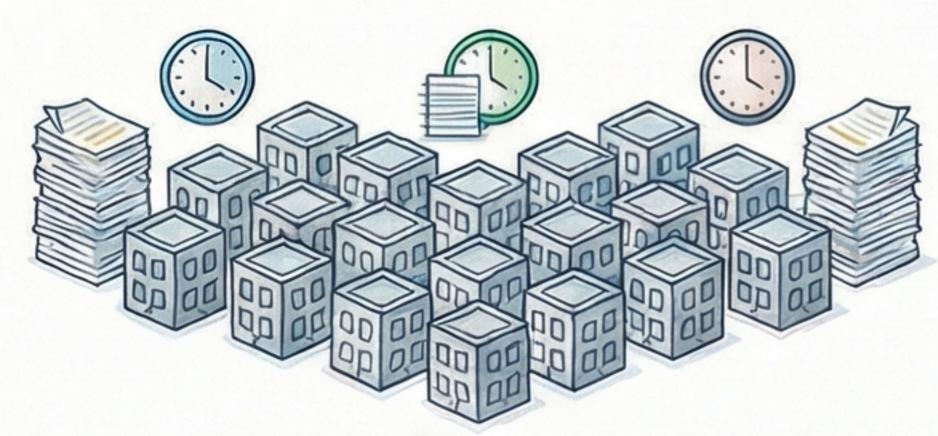
#### A call for continued research and validation.

Fiene and Rroh have called for more studies to examine the effectiveness of differential monitoring approaches to ensure they work as intended to protect children. (Source: Fiene & Rrok, 2016)

# Smarter Monitoring for Early Childhood Education: The DMLMA Framework

The DMLMA framework integrates various monitoring systems (licensing, risk assessment, quality ratings) into one validated model. This allows regulatory agencies to move away from inefficient, uniform monitoring and instead focus resources on programs that need the most support, ultimately improving child outcomes.

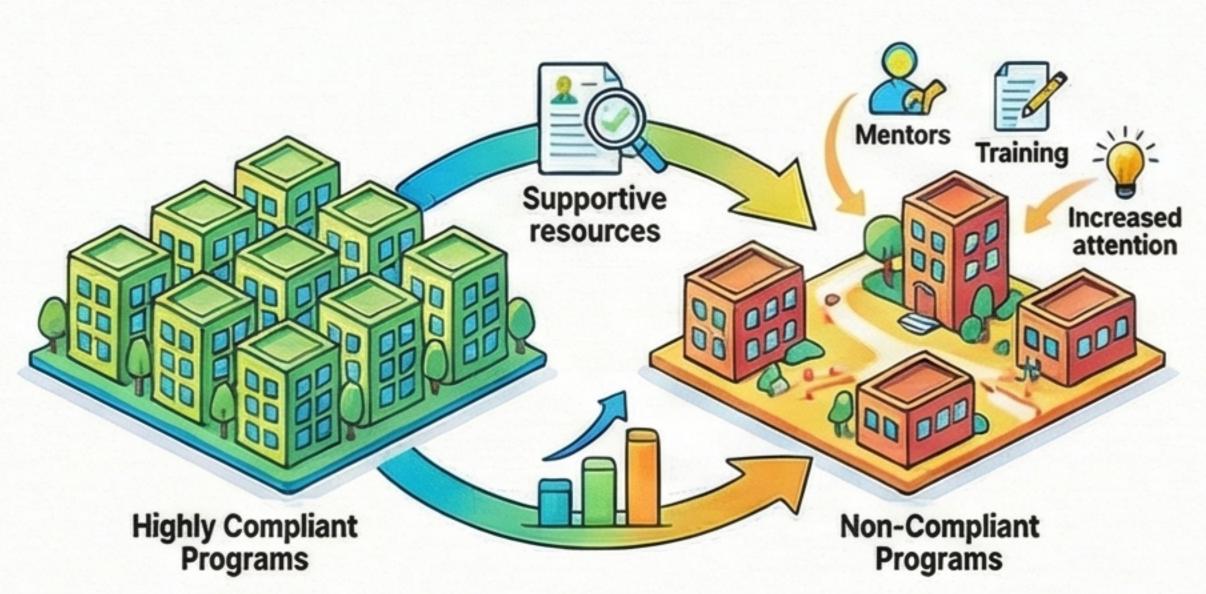
## The Shift to Targeted Monitoring



Program

### The Old Way: Inefficient "One-Size-Fits-All" Monitoring

Traditional systems spend equal time on all programs, regardless of their compliance history.



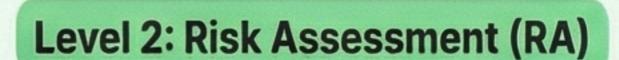
### The DMLMA Solution: A Targeted, Cost-Neutral Approach

Re-allocates resources from highly compliant programs to non-compliant programs needing more assistance.

How DMLMA Works: From Broad Rules to Predictive Indicators

#### Level 1: Comprehensive Standards (CI)

The complete set of all health and safety rules (e.g., Caring for Our Children: 300+ rules).



A subset of the most critical rules essential for safety (e.g., Stepping Stones: 120 rules).

#### Level 3: Key Indicators (KI)

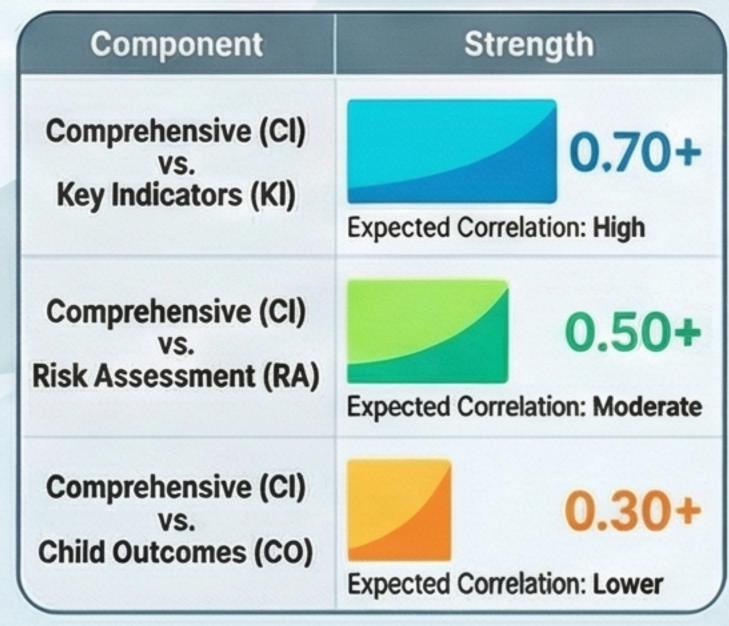
A small set of predictive rules that indicate overall quality (e.g., 13 indicators of Quality).

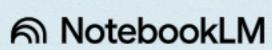
# Decision Making: Differential Monitoring (DM)

Data from RA and KI determines the frequency and focus of future monitoring visits.



## **Component Comparison** & Expected Correlation



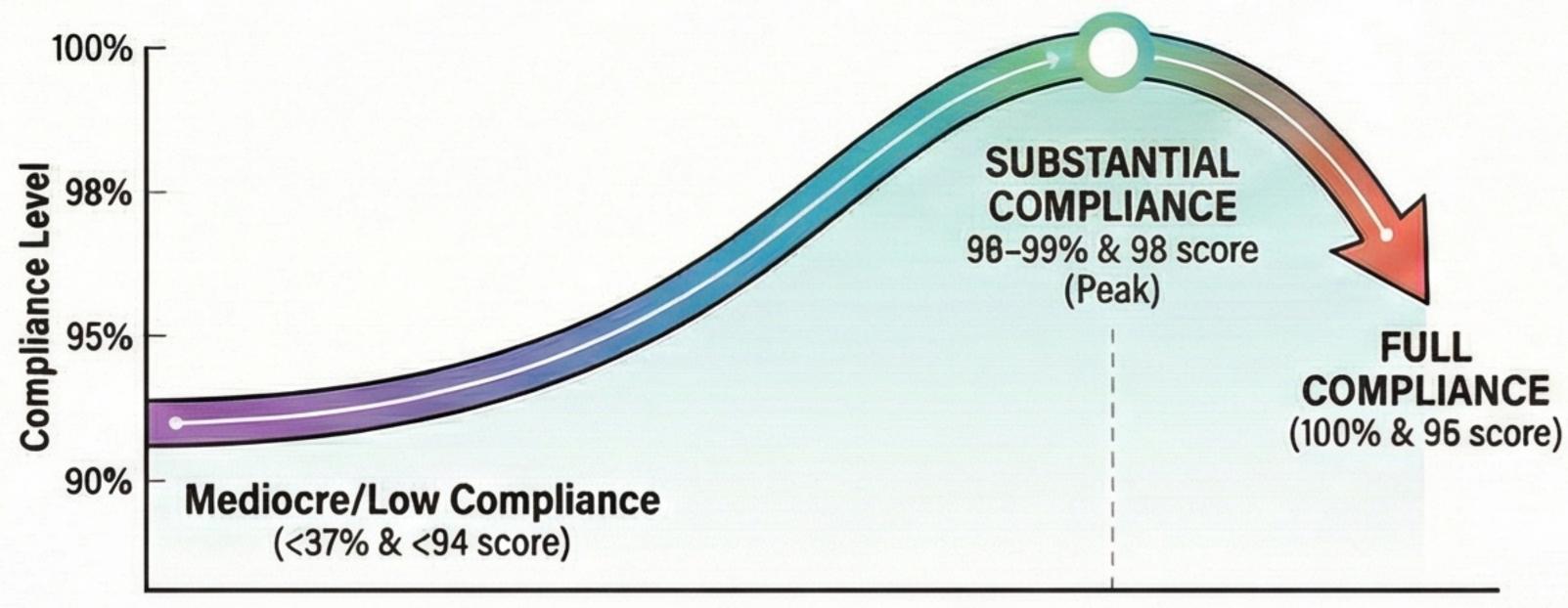


# The Compliance Paradox: Why 100% Isn't Always Best in Childcare

For decades, it was assumed that childcare program quality increased in a straight line as regulatory compliance approached 100%. However, research reveals a surprising gap between perfect paperwork and actual quality, leading to a new paradigm for evaluating childcare services.

### THE "FULL COMPLIANCE" TRAP

Quality Plateaus and Can Even Decline



**Program Quality Score (Illustrative)** 



### **Paperwork Over People**

Staff chasing perfect scores spend more time on bureaucracy than on improving curriculum and teaching.



# **Skewed Data and False Results**

An all-or-nothing approach creates unreliable data and increases the risk of incorrect assessments.



# Quality Plateaus and Can Even Decline

Pushing from 98% to 100% compliance does not improve—and may even harm—program quality.

### A SMARTER APPROACH

Focus on "Substantial Compliance"



# Prioritize adherence to the most productive rules

Prioritize adherence to the most productive rules instead of demanding perfection on all of them.

# Use Differential Monitoring

Rules that statistically predict a facility's overall compliance.



### RISK ASSESSMENT

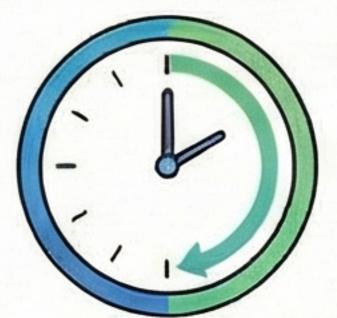
Rules weighted by their potential to barm a child's health and safety if broken.

### **50% MORE EFFICIENT REVIEWS**

COMPREHENSIVE

Takes full time





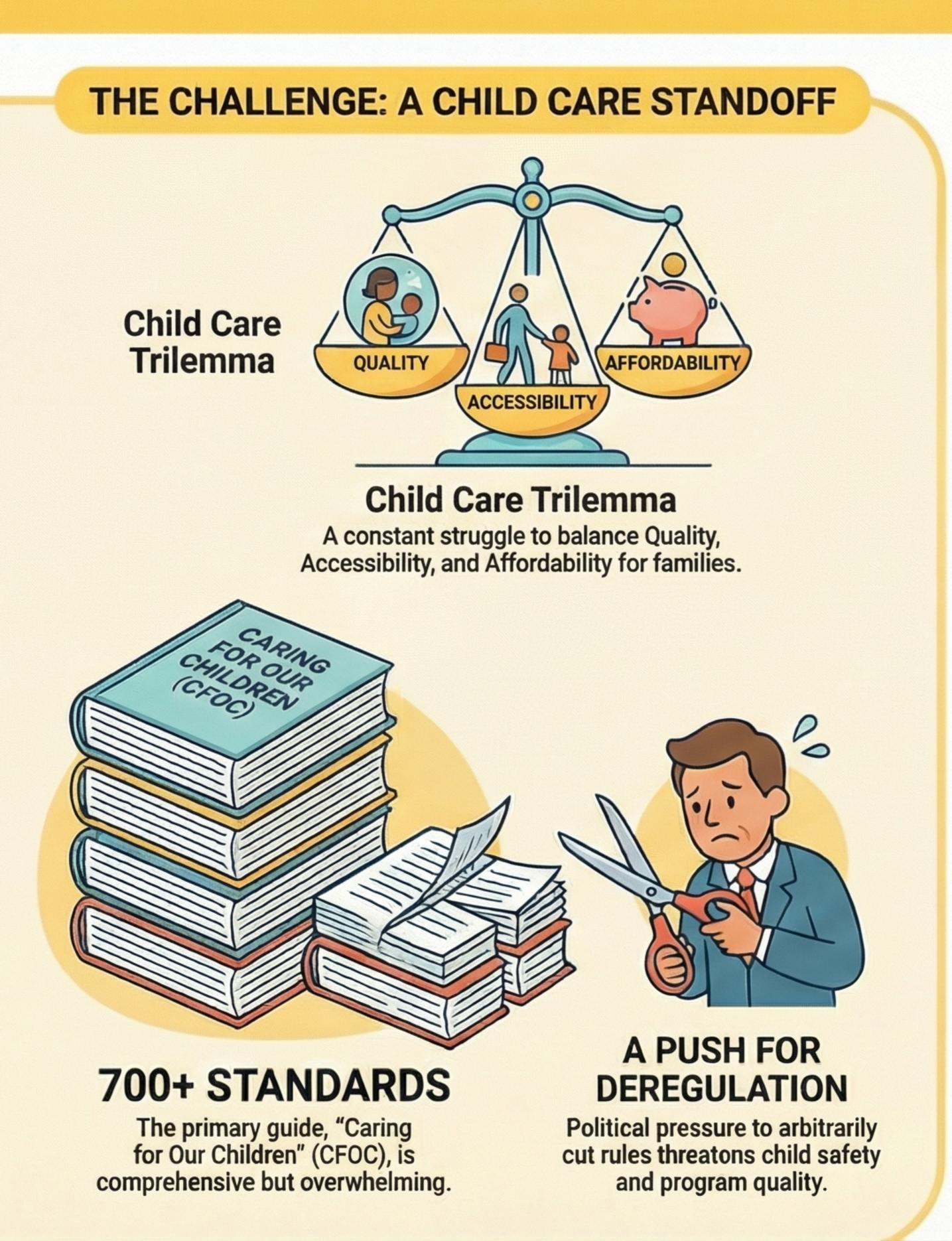
ABBREVIATED, TARGETED REVIEWS

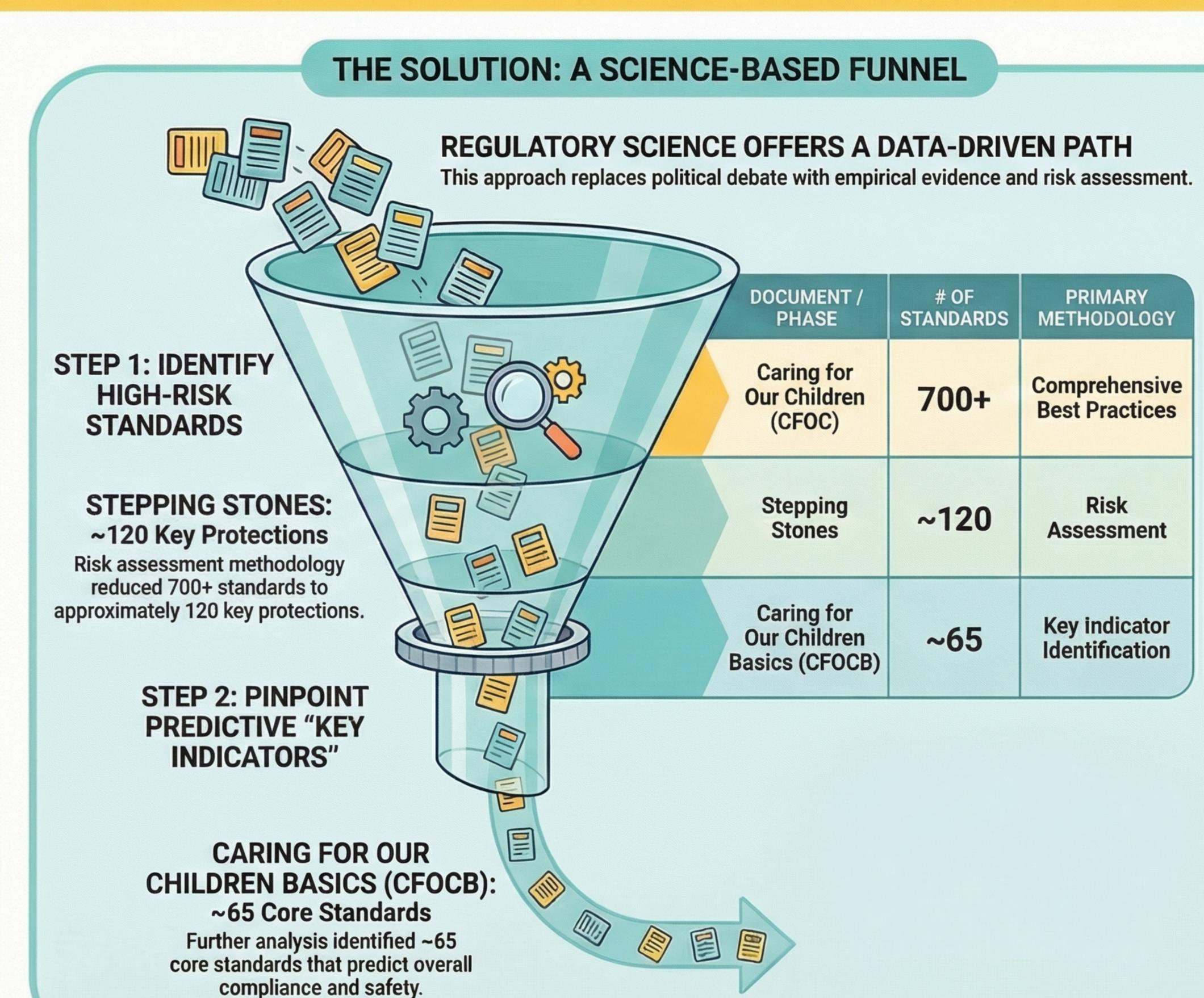
50%

Comprehensive
Targeted Reviews

Abbreviated, targeted reviews using this approach take half the time of comprehensive inspections.

# Smarter Rules, Safer Kids: A New Approach to Child Care Regulation

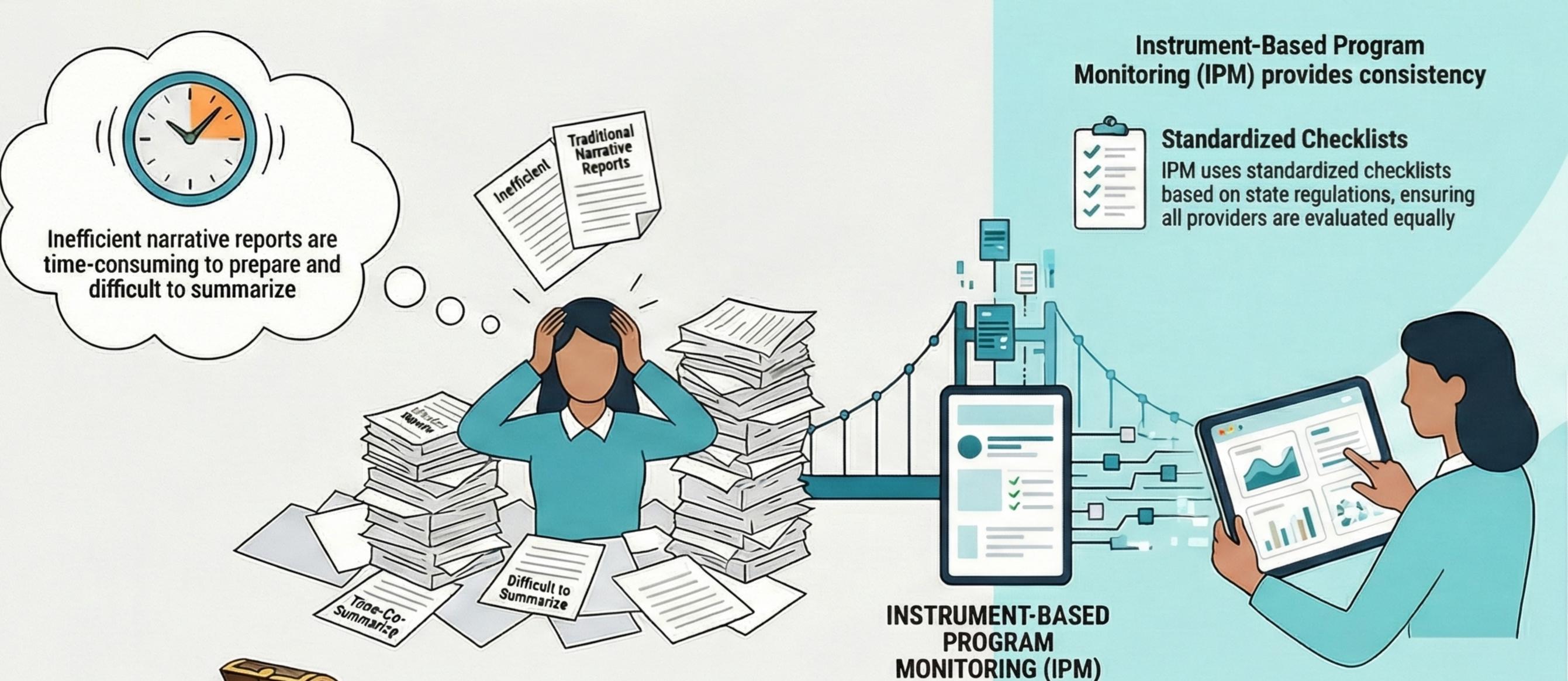




# Smarter Child Care Monitoring: From Lengthy Reports to Data-Driven Insights



### THE SOLUTION: Instrument-Based Monitoring & Indicator Checklists



The "Indicator Checklist" radically improves efficiency



This short form uses ~25 key predictor" items instead of the full -200-item instrument

### **Key Predictors of Quality & Compliance:**



Appropriate staff-to-child ratios are maintained



Sufficient space is provided (min. 40 sq ft per child)



Cleaning materials are stored safely and are inaccessible to children



Emergency contact information is available for all children



Industry

States spend lass than 1% of day care funds on monitoring, despite the industry being valued at over \$6.3 billion annually



External forces demand a more streamlined approach due to fiscal cutbacks, increased workloads, and deregulation pressure

**PROVEN RESULTS: Major Cost & Time Savings** 





West Virginia reduced staff monitoring time by 50%

# From Rules to Results: A Smarter Way to Measure Child Care Quality

100%

Compliance

100%

Compliance

Breakthrough:

The Theory of

**Regulatory Compliance** 

Substantial

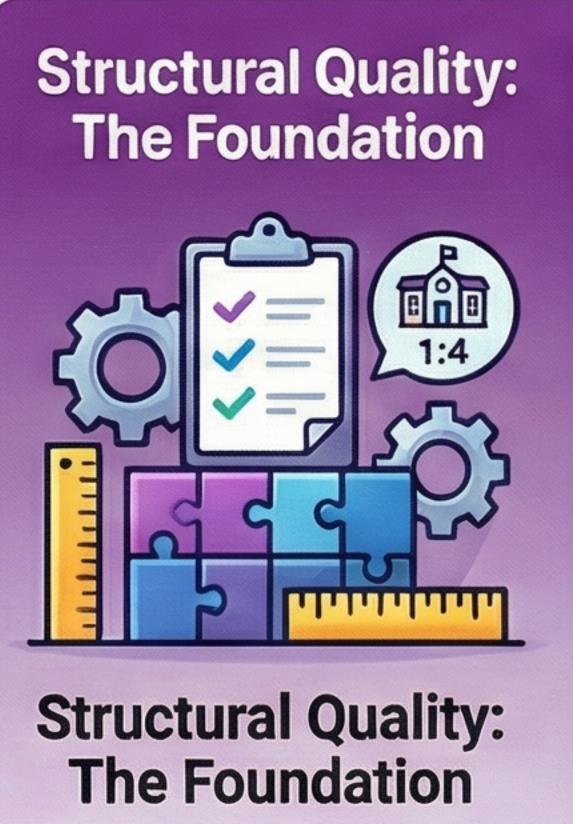
Compliance

Substantial

Compliance

## The Two Faces of Quality

# A Smarter Approach to Monitoring



Focuses on countable

health and safety rules like staff-child ratios and group sizes.





### **Process Quality:** The Interaction

Measures nuanced teacher-child interactions, emotional climate, and opportunities for learning.

### Breakthrough: The Theory of Regulatory Compliance

Showed that "substantial compliance," not 100%, is a better predictor of overall quality.

**New Method:** From Uniform to **Differential Monitoring** 



Uniform Monitoring



Differential Monitoring



Uniform Monitoring Checking every rule



Differential Monitoring Focus on key indicators that predict overall

compliance

Integrated & **Predictive Oversight** 

The Result:

**Key Quality** Indicators (KQIs) now integrate both structural and structural and process measures for efficiency.

## The Measurement Dilemma

Structural rules have a "ceiling effect," making it hard to distinguish high performers.

# **Smarter Regulation: A New Paradigm for Compliance**

The Problem:
Traditional
'One-Size-Fits-All'
Regulation

## The Flawed Goal: Chasing 100% Compliance

This approach assumes more compliance always equals better quality, which is often untrue.

# The Inefficient Method: Uniform Monitoring

All entities get the same level of inspection, regardless of their compliance history or risk.





**MISSED RISKS** 

The Solution: Fiene's Risk-Based Approach Less frequent 'Low Risk' Fiene's Risk-Based The Core Theory: Approach **Diminishing Returns** Moderate monitoring **Risk Assessment** 'Medium Risk' After achieving & Key Indicators "substantial compliance" (-97-99%), the benefit **Risk Profile Key Indicators** of more effort significantly decreases High The Strategy: Prevent Harm (RA) **Differential Monitoring** Low Medium Righ Predict Compliance (RI) Tailor inspection frequency and Focus on rules that **prevent harm** intensity based on an entity's (RA) and statistically prodict overall **Optimized Outcomes** compliance history and risk profile. compliance (RI) 97-99%

# The CCEE Heart Monitor: A Unified View of Child Care Quality

### THE CHALLENGE:

# A Disconnected View of Quality



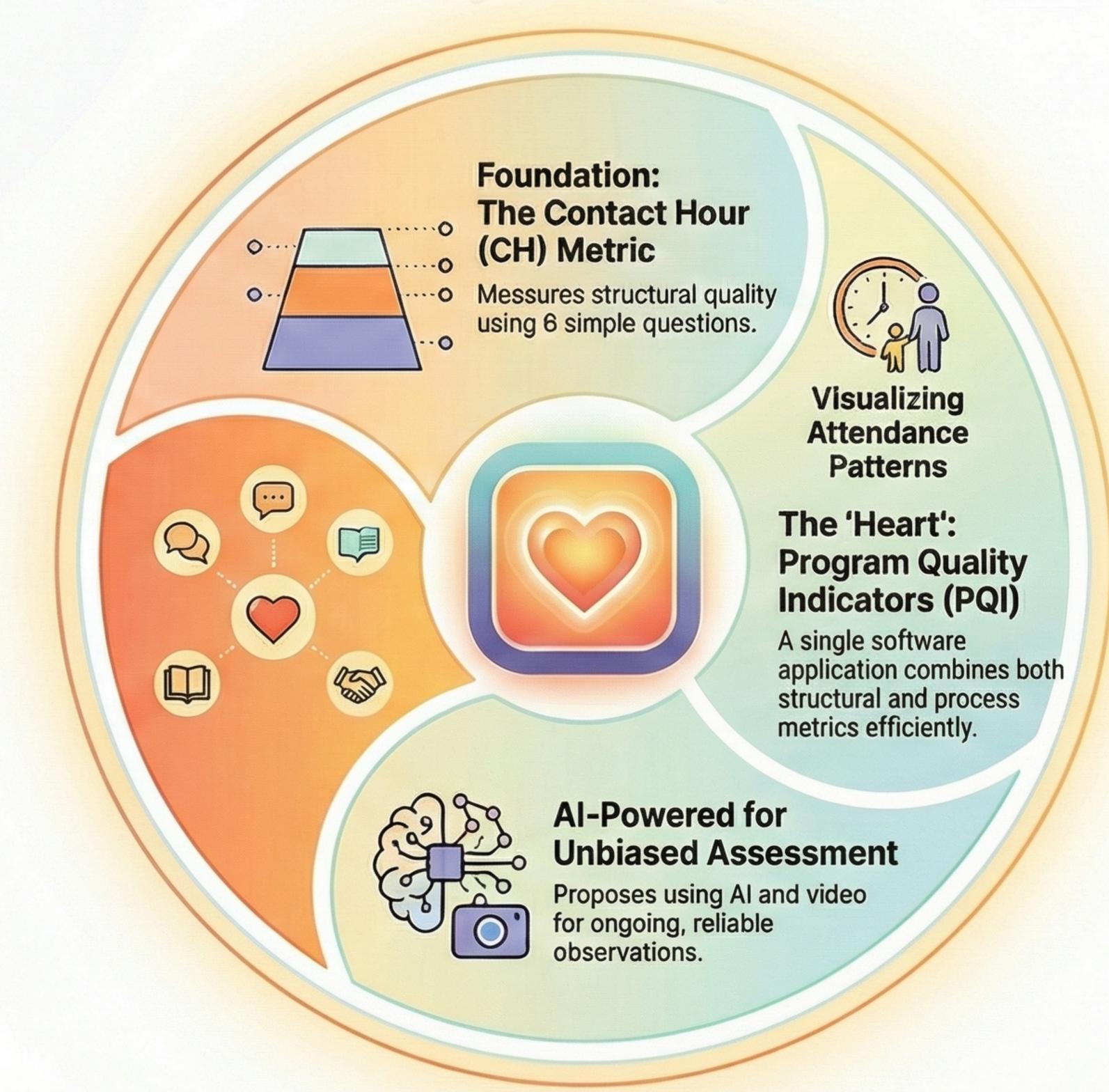
### **Two Silos of Child Care Assessment**

Structural quality (e.g., Health, Safety, Ratios) and process quality (e.g., Staff-Child Interactions) are typically measured with separate, distinct tools.



## THE SOLUTION:

# The CCEE Heart Monitor (CCEEHM)



# The Science of Safety: A Look at Child Care Licensing Research

THE STATE OF LICENSING RESEARCH

Based on a comprehensive review of over 200 articles from 1999-2019, this infographic summarizes the state of CCEE licensing research, highlighting focus areas, gaps, and innovative monitoring approaches.

INNOVATIONS IN MONITORING RESEARCH



### Research Focuses Heavily on Functions, Not Management

Literature primarily covers regulations and monitoring, with less research on staff management and support.



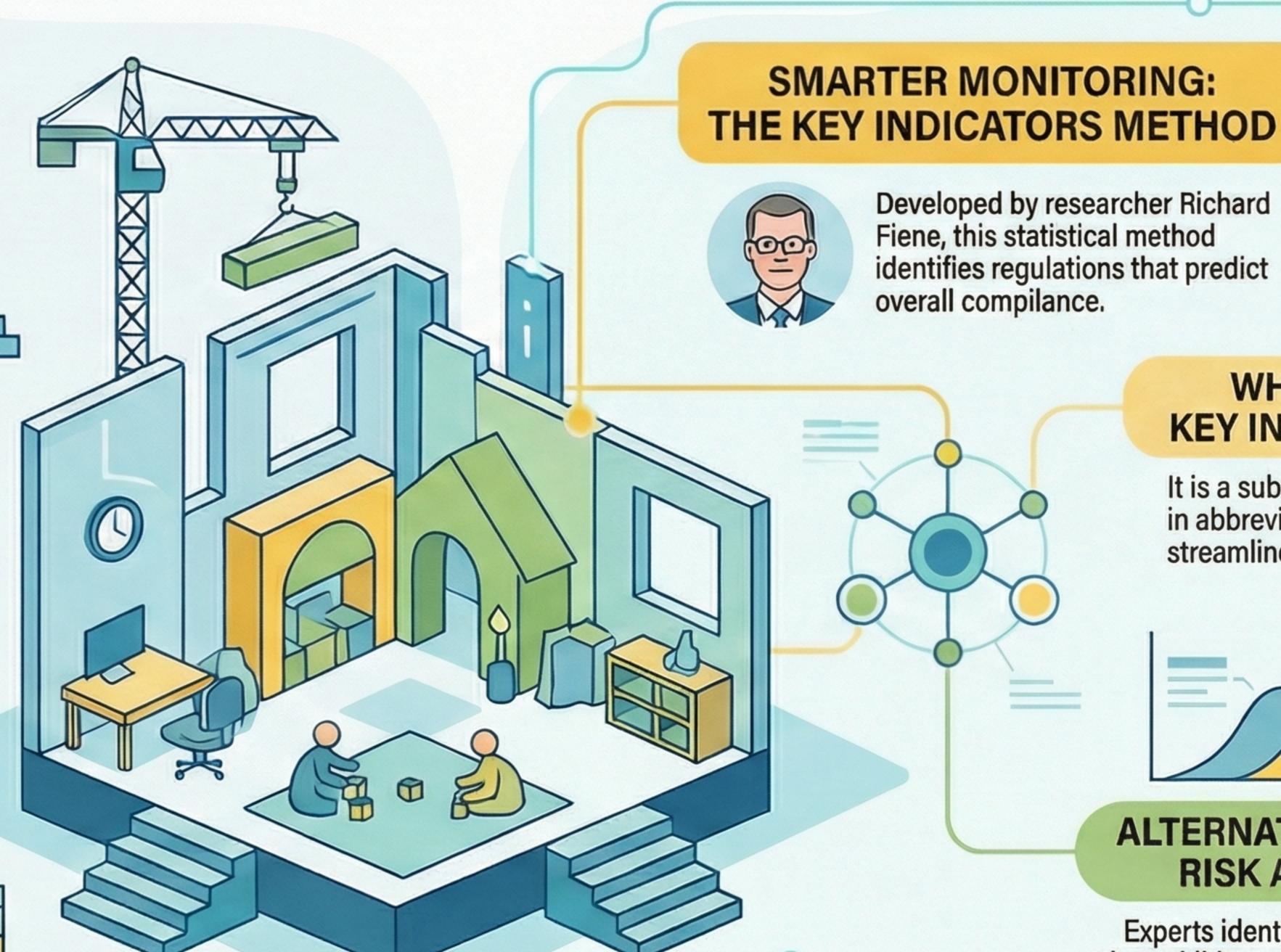
### Few Studies Measure Outcomes for Children & Families

Most outcome research centers on providers; few studies examine effects on child injuries or family costs.



# Most of the Literature is Descriptive

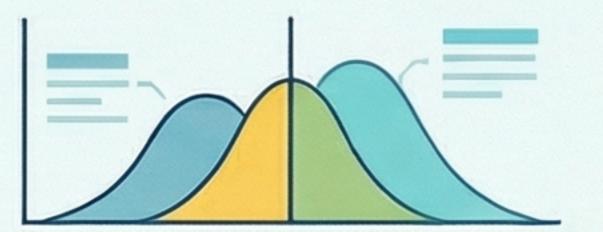
More hypothesis-driven research is needed to build a stronger evidence base for licensing practices.



# WHAT ARE

**KEY INDICATORS?** 

It is a subset of regulations used in abbreviated inspections to streamline monitoring efficiently.



### ALTERNATIVE APPROACH: RISK ASSESSMENT

Experts identify a subset of rules that place children at the greatest risk of harm.

# How States Monitor Child Care Centers: A 2017 Snapshot of Licensing Practices

State licensing agencies inspect child care centers to ensure legal operation, primarily using two different monitoring philosophies: checking every rule every time or adjusting based on a center's track record.

# Full Compliance Monitoring 96% of states use Full Compliance

An inspector assesses a child care program's compliance with all licensing regulations.

An inspector assesses a child care program's compliance with *all* licensing regulations.





# Differential Monitoring 73% of states use a Differential approach

The depth or frequency of inspections varies based on the program's compliance history.

# Strategy 1: Varying the Depth of Inspection

69% of states use "abbreviated inspections" that monitor a select subset of regulations.

Methods for Selecting Rules for Abbreviated Inspections



Consensus Approach

60% of States Using Method



Risk Assessment (Risx of Harm)

49% of States Using Method



(Predicts Overall Compliance) 29% of States Using Method Strategy 2: Varying the Frequency of Inspection

33% of states use compliance history to decide how often to inspect a program.



## **Goal: Efficiency and Focus**

This approach allows agencies to focus resources on lower-compliance programs.



# Pioneers of Regulatory Science: Key Scholars Shaping Human Services Licensing



### Pioneered the "Key Indicators" Approach

Dr. Fiene developed the statistical methodology for identifying a small subset of regulations thet best prodict a provider's overall compliance with the full set of rules, making inspections more efficient.



#### Key Indicators are **Consistent Across** Settings

Research shows considerable overlap in the identified key indicators across different CCEE settings, demonstrating the robustness of this approach.



Dr. Richard Fiene: Architect of

**Modern Regulatory Science** 

### Advanced the "Risk Assessment" Approach

This method identifies and prioritices monitering regulations that place children of the greatest risk of harm if not followed, focusing inspectors' attention on the most critical safety issues.

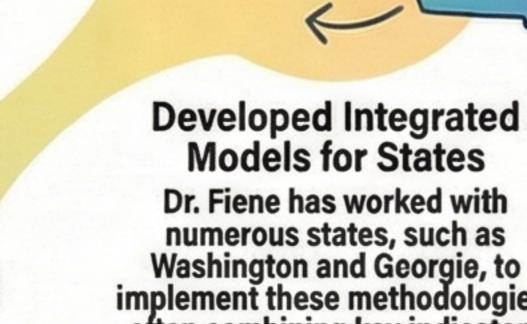


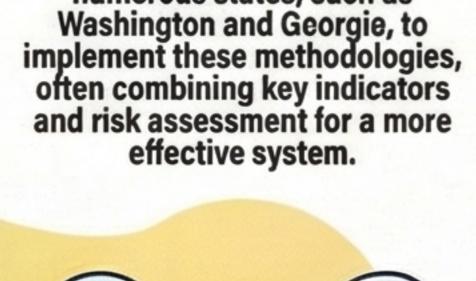
#### Championed "Differential Monitoring"

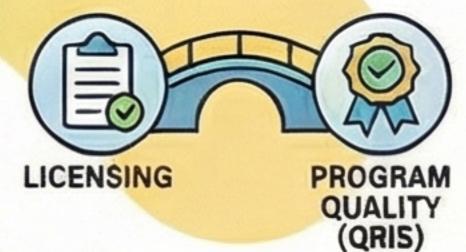
This is an umbrello approach where the frequency or depth of monitoring is varied based on a facility'a history of compliance, using tools like key indicaters and risk assessments.



6M96RT OF COMFLIANCE







#### Created the ECPQI2M4 Model

This model provides a crosswalk between licensing and program quality systems, helping to align compliance monitoring with broader quality improvement goals.

## **Foundational Concepts from Other Key Scholars**



#### Germley: More Frequent Inspections mprove Performance

A hey study in Hendant by Gorndey (LP85) found that child care centers receiving more requent inspections performed better over time, regardless of their previous compliance flixtury,



#### Germicy & Morgan: The Regulatory **Balancing Act**

These scholars highlighted that regulations most balance protecting children with the need for an adequale enumy of cerel regulations that are too costly or intrusive may reduce the number of evailable ficensed providers.



#### Maxwell & Start: Linking Licensing to Quality

They provided a fromework for how licensing can actively aspport CCTF quality, viewing regulations as a loundational subset of breeder quality standards and promoting TA as a key licensing activity.



#### Payne: Establishing Best Practices for Licensing Staff

Payne's research contributed to defining licensing management and establishing recommended best practices, such as a maximum cassload of 50 programs per licensing walf member to ensure effectiveness.





### Increase Efficiency

Use data-driven methods like abbreviated compliance reviews to save time for both inspectors and providors, allowing staff to focus on technical assistance.



### Focus on High-Risk Areas

Prioritize regulations that are most critical to children's health and safety, ensuring that monitoring alforts have the greatest impact on preventing harm.



#### Improve Consistency and **Objectivity**

**Employ statistical methods to create** standardized monitoring tools, reducing inconsistencies between individual inspectors and regions.



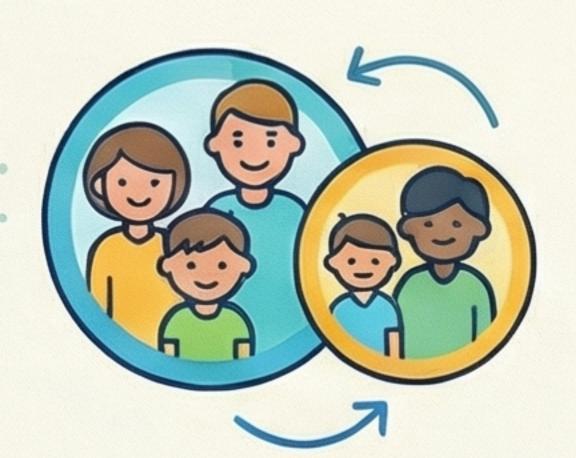
#### **Enhance Provider Quality**

Align licensing compliance with broader quality improvement initiatives (like QBIS) to create a seamless system that supports provider growth.

# **Contact Hours: A Smarter Metric for Child Care Safety**

A simple mathematical model used to predict and monitor health and safety risks in child care centers without requiring on-site inspections.

# What is the Contact Hour (CH) Metric?



# A Simple Model to Measure Interaction Density.

It calculates a risk score based on the number of people and time spent together.



# Predicts Risk for Illnesses & Injuries

Higher CH scores are correlated with higher risks of infectious disease spread and injuries.



# **Enables Efficient Virtual Monitoring**

The metric can be calculated remotely, helping target limited on-site inspection resources effectively.

# How It Works: From Data to Risk Assessment

Step 1: Gather Data with 6 Simple Questions



When does the first staff arrive?



When does the last staff leave?



How many staff are there?



How many children are there?



When does the last child arrive?



When does the first child leave?

How Adult-to-Child Ratios Impact the CH Score

	Number of Children	CH Score (S:1 ratio)	CH Score (1B:1 ratio)	CH Score (1S:1 ratio)
Constitution of the Consti	5	~20	~40	~60
-	10	~40	~80	~120
-	15	~60	~120	~150+

Demonstrates how Improving adult-to-child ratios significantly reduces the Contact Hour score, thereby lowering risk.



# Step 2: Calculate the CH Score

A formula combines the data to visualize interaction density, often shaped like a trapezoid.

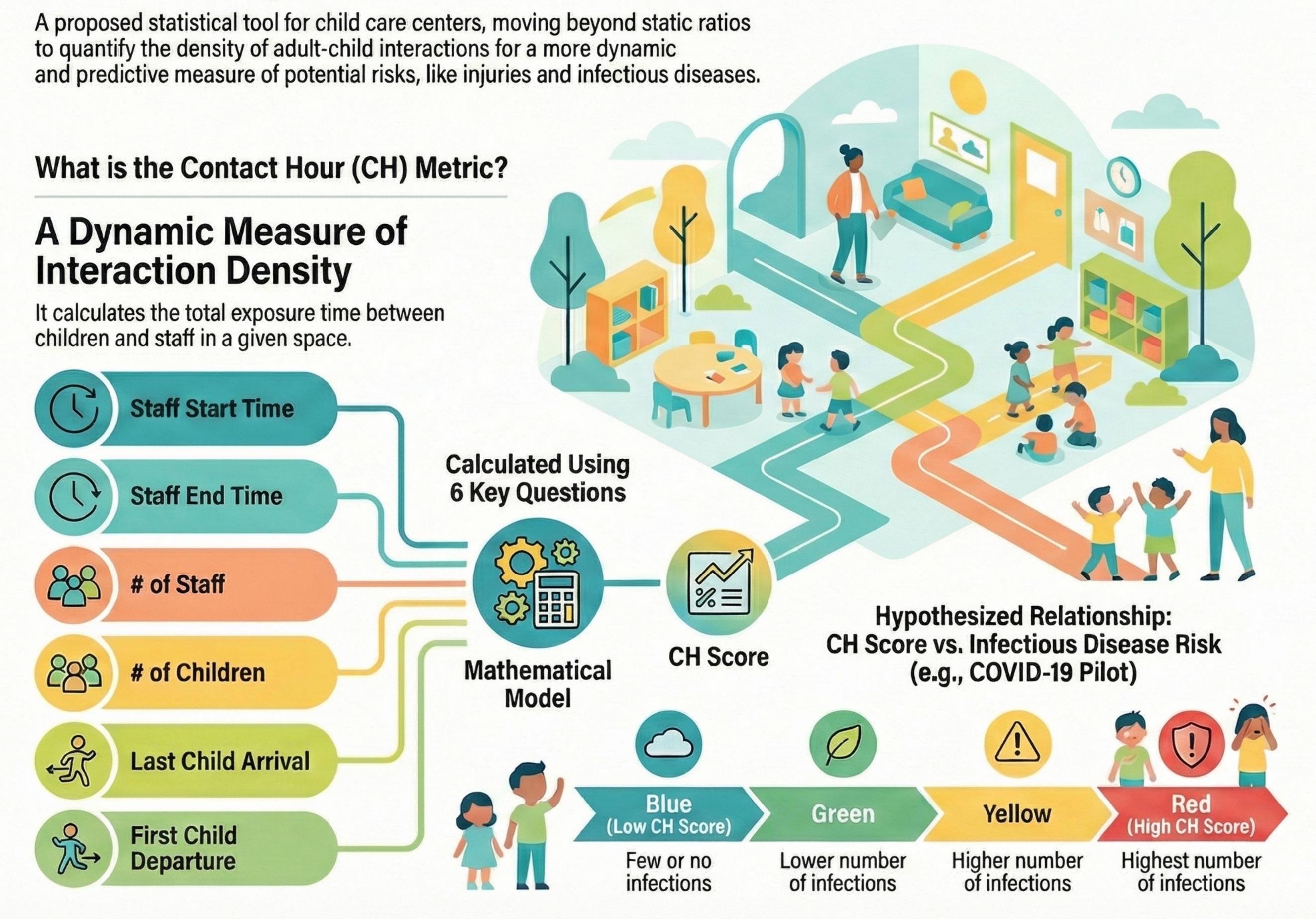
Formula Interaction Density

(Trapezoid)

# Step 3: Assess the Risk Level

The resulting CH score indicates potential risk, validated by studies in Washington State.

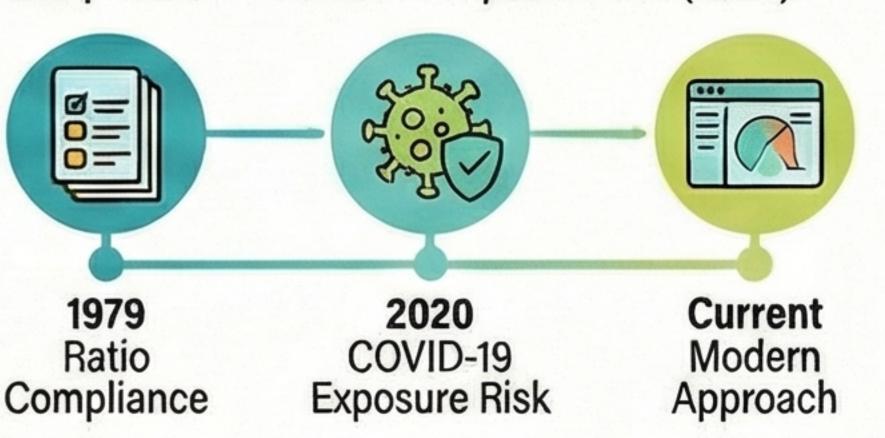
# Measuring What Matters: The Contact Hour Metric for Child Care Safety



# Applications & Potential of the CH Metric

# A Tool with a History of Versatility

Originally for ratio compliance (1979), it was revived and plloted for COVID-19 exposure risk (2020).



## A Modern Approach to Monitoring Health & Safety

It is now proposed as a screening tool to help identify centers with higher potential risks.

# The Future: Adding Space to the Equation

Future versions may include facility square footage to create a 3D risk assessment model.

# A Blueprint for Better Licensing Decisions: The Uncertainty-Certainty Matrix

THE PROBLEM & THE TOOL

Licensing Decisions Suffer from High Inconsistency



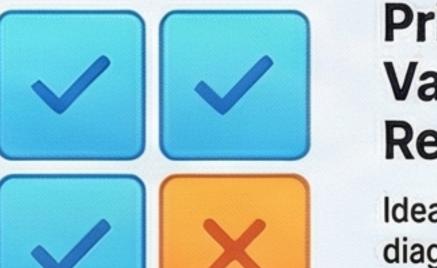
### Inconsistency & Risk

Disagreements between inspectors undermine the reliability of monitoring and can put clients at risk.

of compliance.



#### SPOTTING ERRORS AND BIAS WITH THE UCM



### Primary Goal: Valid and Reliable Results

Ideal outcomes show a strong diagonal pattern, where decisions consistently match the actual reality.



### **CRITICAL RISK:**

### **Beware of False Negatives**

Deciding a program is 'in compliance' when it's not places clients at the most extreme risk.

### **Diagnostic Patterns**



#### Ideal: Valid & Reliable

Strong diagonal agreement. The inspection system is working correctly.





#### Problem: Random Results

All four cells are filled equally. The decision-making process is chaotic and unreliable.



#### Problem: Inspector Bias

A strong horizontal or vertical line. The inspector is consistently too lenient or too strict.

# A Better Way to Measure Regulatory Compliance

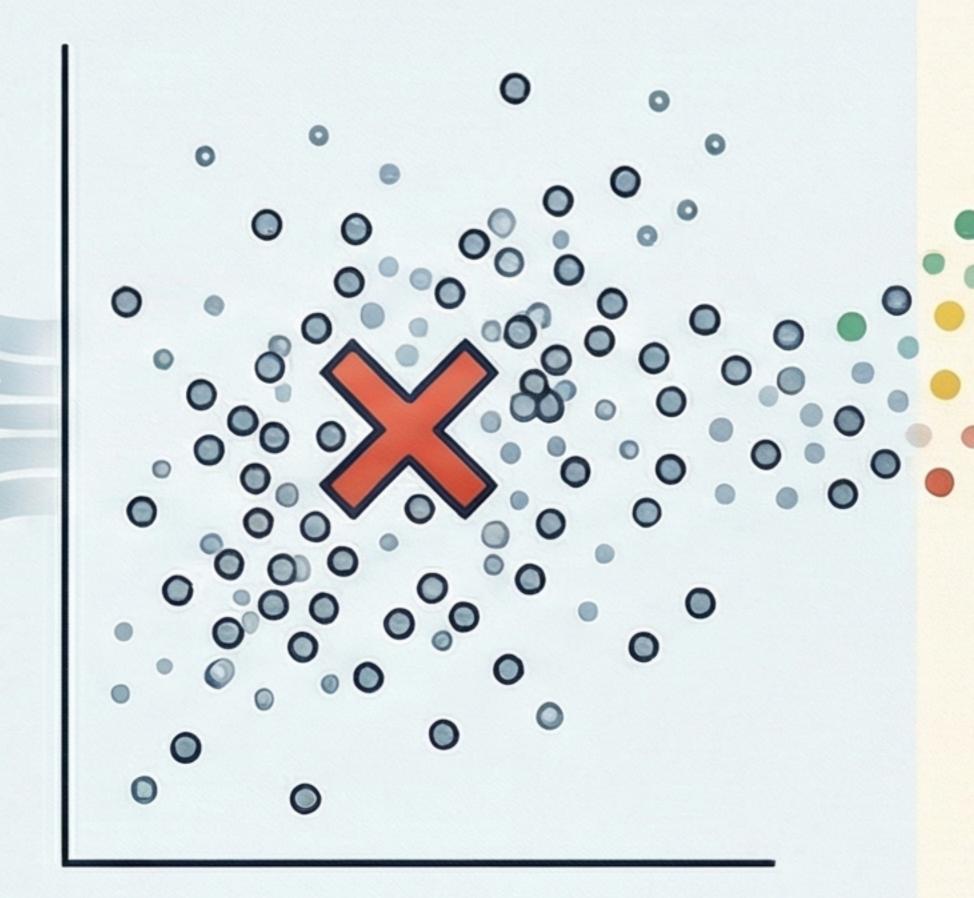
THE PROBLEM:

An Absolute "Yes/No" System



### **All-or-Nothing Compliance**

The old system measures compliance as all-or-nothing. A program is either 100% compliant or not, with no room for nuance.



### No Correlation to Quality

More compliance doesn't equal higher quality. Research shows that simply counting violations does not reliably predict a program's quality. Data shows a scattered, uncorrelated relationship.

THE SOLUTION: A Graded Regulatory Compliance Scale (RCS)



FULL / SUBSTANTIAL COMPLIANCE (0-2 Violations)

"SWEET SPOT" for quality

MEDIUM COMPLIANCE

(3-10 Violations)

LOW COMPLIANCE
(11+ Violations)

The new system groups compliance into meaningful or compliance into meaningful levels. This reveals a "sweet spot" for quality; programs with "Substantial Compliance" often show higher quality than fully compliant ones.

### **Clear Licensing Decisions**



0-2 Violations (Score 7 or 5)

→ Recommended Decision:

FULL LICENSE



MEDIUM

3-10 Violations (Score 3)

→ Recommended Decision:

PROVISIONAL LICENSE



LOW

11+ Violations (Score 1)

→ Recommended Decision:

NO LICENSE

The scale provides a clear basis for licensing decisions. Each compliance level corresponds to a specific licensing action, improving consistency.

# **Boosting Child Care Quality:**

Proven Strategies for Infant & Toddler Care

#### THE CHALLENGE:

## Critical Gaps in Child Care Quality

Low Compliance with Health & Safety Standards



66%

Centers met only 66% of key health and safety standards before intervention.

Inadequate Care for Children with Special Needs





Only 1 in 66 children with special needs had a complete care plan.

Poor Immunization Tracking



### On average, only 24%

On average, only 24% of infants and 42% of toddlers had up-to-date immunization records.

#### THE SOLUTION:

## **Targeted Professional Support**



254 (79%)

Control Group (No Intervention): Pre 218 (69%), Post 221 (69%)

212 (66%)

#### Improvements are Sustained Over Time

Centers maintained their quality score improvements a full year after the CCHC intervention ended.