Key Indicator Systems
How they Work, Why they Work, and the Benefits of Using Them
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Targeted measurement tools are licensing inspection methods that increase the effectiveness and efficiency of a regulatory oversight agency without producing recurring operational costs. In other words, targeted measurement tools maximize performance while minimizing costs.

Regulatory oversight agencies nationwide are moving towards targeted measurement as an effective alternative to traditional licensing methods. Instead of measuring every regulation during every inspection in every licensed setting every year, targeted measurement allows agencies to devote more resources to struggling licensees by shifting resources away from high-performing providers while still ensuring that safe, high-quality care is provided in all settings. **Key Indicator Systems[1]**, or KIS, are a kind of targeted measurement tool.

Many people mistakenly believe that KIS identify the most "serious" regulations (that is, the regulations which, if violated, pose the greatest risk to children in care, e.g. leaving children unattended or water temperatures that are too hot). In actuality, KIS identify a subset of licensing regulations that statistically predict compliance with the entire set of regulations.

How Key Indicator Systems Work

NARA's research has shown that some violations are usually identified during the licensing inspections, even at the most highly-compliant settings. Highly-compliant settings and settings with low compliance share some regulatory violations, but certain violations tend to appear more frequently in settings with low compliance. KIS development includes establishing what it means for a setting to be "high compliance" (few total violations during inspections) or "low compliance" (many violations during inspections), testing the statistical relationship between individual violations and overall compliance in historical inspection data, and identifying the violations that have the closest relationship between "individual" compliance and total compliance. Consider the following illustration:

Rule	High Compliance Setting	Low Compliance Setting
x	Compliant	Violation
y	Compliant	Violation
z	Violation	Violation

In this illustration, analysis of rules *x* and *y* found that high compliance settings are usually compliant with the rules, while low-compliance settings are usually not compliant with the rule. Moreover, rule *z* is usually found to be in violation at both high and low compliance settings. This tells us that rule *z* is probably not a good indicator of overall compliance, but rules *x* and *y* may be indicators of overall compliance. Next, we analyze the statistical relationship between the rules and the settings' levels of compliance to determine if rule compliance really is a good predictor of overall compliance. The results of the testing might look like this:

Rule	High Compliance Setting	Low Compliance Setting	Strength of Relationship
x	Compliant	Violation	Close relationship (Good predictor)
y	Compliant	Violation	Moderate relationship (Poor predictor)
z	Violation	Violation	No relationship (Terrible predictor)

What this means is, if a setting is in compliance with rule *x*, **then we can be very confident that the setting is in compliance with all the other rules as well**, whereas compliance with rules *y* and *z* tell us nothing about overall compliance. Knowing this, we can conduct an abbreviated inspection where only rule *x* is measured to determine overall compliance.

The above illustration is a simplified example. KIS usually identify between 20-30 rules that are good predictors of overall compliance, but the principle is the same: if there are, say, 500 rules, we can predict overall compliance by measuring compliance with only 30 of those rules.

Additionally, there are safeguards in place to ensure that KIS do not inadvertently result in harm to children in care. One such safeguard is the development of eligibility criteria for participation in an indicator (i.e. abbreviated) inspection. Not all licensed settings are eligible for KIS inspections. Part of NARA's work on KIS is to assist states in identifying factors that would preclude eligibility for an indicator inspection. Factors that generally preclude indicator inspection eligibility include a recent history of licensing enforcement action, the identification of a "serious" violation during the most recent inspection, operation of a setting by an owner for less than 2-3 years, or an open complaint of noncompliance during the scheduled inspection period. Another safeguard is expanding the inspection to include all rules in the event that a key indicator regulation is found to be noncompliant during an inspection. Using the example above, if a setting was found to be out of compliance with rule *x* during an indicator inspection, the surveyor would then measure compliance will all rules to determine the full scope of noncompliance. A third safeguard is the identification of regulations that will always be measured during every inspection, even if the regulation is not a key indicator. For example, NARA has found that noncompliance with swimming or water-related regulations frequently leads to harm or even death. As a result, NARA may recommend that such regulations be measured during all inspections.

Why we know Key Indicator Systems Work

NARA has been developing and refining qualitative and qualitative targeted measurement tools, especially KIS, for over 30 years. NARA's professional services and educational curricula have been used by dozens of states and provinces for program-specific research, training, and customized technical assistance for child day and residential care settings, care settings for older adults, and care settings for persons with mental illness and intellectual disabilities. Our methods are time-tested and proven to maximize agency performance without sacrificing the health and safety of persons in care. Additionally, although each state's key indicator regulations are different, independent research conducted by Dr. Richard Fiene, an early-child education professional and NARA consultant, has found patterns in key indicators of compliance/quality in childcare programs, suggesting that certain areas of regulatory oversight function as key indicators nationwide (these include: child abuse reporting and clearances, proper immunizations, staff-to-child ratio and group size, director and teacher qualifications, staff training, supervision/discipline, fire drills, administration of medication, emergency contact/plan, outdoor playground safety, inaccessibility of toxic substances, and handwashing/diapering).

The Benefits of Key Indicator Systems

Key Indicator Systems do not just benefit the licensing agency; in fact, their use benefits *all* stakeholders.

- **The regulatory oversight agency** is able to spend more time monitoring and providing technical assistance to noncompliant providers by spending less time in compliant programs.

- **Providers** benefit from shorter inspections by maintaining compliance.

- **Persons in care** enjoy a higher degree of health and safety protection.

- **The public** is assured that strong licensing continues even if resources are reduced.

Resources for Key Indicator Systems

NARA's licensing professionals and professional researchers are available to provide additional information about Key Indicator Systems upon request. For KIS inquiries, please contact NARA at (859) 269-1601 or by emailing Viki Young, NARA Executive Director, at vikiyoung@naralicensing.org.