Office of Head Start Program Monitoring Risk Assessment Prediction System: GPMS+Lite+Risk Indicators

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INTRODUCTION

This research abstract builds off of a previous abstract submitted last month with the addition of creating pre-site Key Risk Indicators (KRI) from additional data collected on grantees prior to regular monitoring visits. Specific components of that May 2025 research abstract are contained within this abstract but now with the addition of the KRIs. This will help to better inform the GPMS: Grantee Performance Management System. It will be pointed in which sections the additions have been made. Another addition or clarification in this research abstract versus the May 2025 research abstract is the distinction between Key Compliance Indicators (KCI) and Key Performance Indicators (KPI). These distinctions will be duly noted in this abstract.

This research abstract is to present a proposed revision to the Office of Head Start Grantee Monitoring system that is both cost effective and efficient based upon a risk assessment prediction system. It builds off the latest methodological developments in the regulatory science field. A couple of major changes in the methodology dealing with risk assessment as an outcome rather than an input and using program quality as an input rather than an outcome. This is a new approach in utilizing the differential monitoring approach which has been used a good deal in licensing agencies (approximately two-thirds of agencies in the USA and Canada utilize such an approach). It also builds off the original GPMS: Grantee Performance Management System design in expanding its risk assessment predictive capability.

The GPMS has evolved into a robust program monitoring system in which both Head Start Performance Standard (HSPS) compliance and program quality data are collected for respective grantee facilities. The changes suggested in this research abstract will build upon this base but pivot the direction a bit in focusing more on the risk assessment results based upon a predictive analytical model by identifying specific HSPS's, risk variables, and performance indicators via the use of key compliance indicators, key performance indicators and key risk indicators that statistically predict overall compliance with the HSPS standards in general.

Let's start with describing the basic demographics of the data utilized to come up with the revised GPMS.

Demographics

The data were drawn from reviews completed in 2024. There were 335 reviews of programs with 2901 observations made. The number of observations made of individual programs ranged from 1 to 51. The observations were mainly in the following three federal regions: Region 4 - South, Region 5 - NorthCentral, and 6 - SouthCentral; although all regions were covered in one way or another. The most frequent number of citations were with the following HSPSs: 1302.90: Personnel Policies; 1302.91: Staff Qualifications and Competency; 1302.42: Child Health Status and Care; 1302.47: Safety Practices; 1302.102: Program Goals, Continuous Improvement, and Reporting in which 200 or more times these HSPSs were cited.

The types of program reviews were the following: FA1 = 11%; FA2 = 68%; RAN = 20%; and SPC/Special = 0.50%. The program review outcomes were: Compliant = 12%; Noncompliant = 48%; and Deficient = 40%. The program finding types were the following: Compliant = 3%; Area of Concern = 1%; Area of Noncompliance = 36%; Deficiency = 13%; Dropped = 46%; and Missing = 1%.

METHODOLOGY

The methodology utilized is drawn from the licensing measurement and regulatory science research literature related to regulatory compliance being utilized by the National Association for Regulatory Administration based upon identifying key indicator/predictor rules/regulations. The methodology focuses on compliance levels, risk prediction rules/standards assessment, fitting the compliance data into a Regulatory Compliance Scale (RCS) for sensitivity analysis, compliance and quality relationships, and comparing the GPMS to other licensing and accreditation monitoring systems across the USA and Canada.

The methodology has been documented in detail and is available on the following research websites (https://rikinstitute.com)(https://www.naralicensing.org/key-indicators), so that information will not be repeated here regarding the methodology.

RESULTS

1. ***Key Compliance Indicators (KCI) and Key Performance Indicators (KPI)***

The first series of results gets at the core set of Key Compliance Indicators (KCI) which are drawn from the Head Start Performance Standards (HSPS) and Key Performance Indicators (KPI) which were drawn from the data bank of the GPMS that should be assessed all the time. The methodology utilized here was to focus on those standards that had predictive ability when comparing them to overall compliance levels. The following KCI and KPI meet that criterion and were found all statistically significant ($p < .0001$) with phi coefficients between .42 - .67.

Education and Child Development (ECD): DT20: The grant recipient assesses all education staff to identify strengths and areas of support and those who would benefit most from intensive coaching (KCI),

HRD18: All center-based Head Start lead teachers have the appropriate qualifications or the program has an active waiver in place (KCI);

Fiscal (FIS): FDT6: The grant recipient's staff participate in an annual ethics or standard of conduct training (KPI),

FDT11: The grant recipient's fiscal staff has a high rate of turnover (KPI),

FDT12: The grant recipient believes its fiscal department is adequately staffed (KPI),

FDT16: The grant recipient maintains and implements written fiscal policies and procedures addressing standards of conduct for those responsible for financial decision-making and fiscal staff, including conflicts of interest (KCI),

FDT1: The fiscal officer responsible for managing Head Start funds has the education and experience necessary for effectively managing the programs fiscal operations, given the fiscal complexity of the program (KCI),

FDT32: Does the accounting system maintain an internal audit trail to evidence the approval process? (KPI),

FDT33: Does the accounting system have approval rules to automate the sequences of events required for official signoff on records? (KPI),

FDT30: Is the grant recipient's accounting system integrated with all other financial management systems used by the grant recipient with the capacity to perform all accounting functions digitally? (KPI),

FDT64: The accounting system includes controls to prevent inappropriate administrative cost charges to grant programs, including potential over-obligations of program funds or duplicate payments (KCI);

Health (HEA): HDT3: The grant recipient has confirmed if a health care professional has made initial determinations on whether all children are up to date on their preventive and primary medical care (well child visits) within 90 days of enrollment (KCI),

HDT7: The grant recipient performs or obtains vision and hearing screenings for all enrolled children within 45 days of enrollment (KCI),

HSD13: All grant recipient staff have had an initial background check completed prior to hire (KCI),

SSEDT7: The grant recipient attests and has documentation that children are not exposed to lead in paint at any of its facilities (KCI);

Program Development, Monitoring and Improvement (PDMI): ECDDT10: The grant recipient analyzes a variety of education data to understand trends and gaps in curriculum implementation, instruction, and education services (KCI),

PCD3: The grant recipient provides the policy council with the data needed to effectively conduct its responsibilities (KCI),

MHDT12: The grant recipient analyzes a variety of mental health data to understand trends and gaps in services and inform continuous improvement to mental health services (KCI),

FCEDT15: The grant recipient analyzes a variety of family data to understand trends and gaps in services and inform continuous improvement to FCE services (KCI),

HSDD6: The recipient maintains a system of ongoing oversight to ensure effective implementation of the program performance standards (KCI),

FDT40: The grant recipient provides the governing body with the data needed to effectively conduct its responsibilities (KCI),

HDT13: The grant recipient uses a variety of health data to monitor for compliance with HSPPS and inform continuous improvement to health services (KCI),

SAG2: The grant recipient's established program management structure supports effective management and oversight of each service area (KCI),

SAG3: The grant recipient has systems to ensure adequate staffing (KCI),

SAG5: The grant recipient analyzes a variety of data across service areas to understand trends and gaps in services and inform continuous program improvements KCI),

SAG6: The grant recipient analyzes a variety of education data to understand trends and gaps in curriculum implementation, instruction, and education services (KCI).

The above KCIs and KPIs constitute the key predictor standards/key performance indicators and could be formatted into an abbreviated review tool in which compliance with all these key predictor standards would provide a pass on a more comprehensive review, while any non-compliance with any of the key predictor standards would usher in a more comprehensive review.

2. Key Risk Indicators (KRI)

The same methodology utilized in identifying the above KCIs and KPIs was utilized in generating the following Key Risk Indicators (KRI). These KRIs had to meet the same measurement qualities as the KCIs and KPIs in that they statistically predicted a greater risk of non compliance in the overall set of HSPS standards. Only those KRIs which were at a .0001 level of significance were included as was the case with the KCIs and KPIs above.

There were three pre-review risk variables that attained this Key Risk Indicator designation and they were the following:

KRI 13: Has one or more of the agency's Head Start and/or Early Head Start grant(s) experienced turnover in their management positions in the last 12 months?

KRI 18: Does one or more of the agency's Head Start and/or Early Head Start grant(s) have any vacant family services staff positions?

KRI 34: Does the agency's Head Start and/or Early Head Start grant(s) have a history of late or inconsistent financial reporting?

3. HSPS Compliance and the Regulatory Compliance Scale (RCS)

The average overall compliance level was 81% of being in compliance with the HSPS. When these compliance data are placed on a Regulatory Compliance Scale (RCS), the distribution is 7 = 10% of programs; 5 = 54% of programs; 3 = 25% of programs; 1 = 10% of programs. Seven (7) is the highest level of compliance with all HSPS (100%-95%), 5 is a substantial level of compliance with all HSPS (94%-90%), 3 is a mediocre level of compliance with all HSPS (89%-85%), 1 is a low level of compliance with all HSPS (84% or lower). As one can see, the majority of programs are at a substantial level of compliance with all HSPS. This result is very consistent with what other USA and Canadian jurisdictions have found as well. With rule based or standard based compliance systems, the majority of programs are always in full, high or substantial levels of compliance with fewer programs to be categorized as mediocre or low compliance.

4. Regulatory Compliance Scale (RCS) and Program Quality

The third and last series of results deals with HSPS compliance and CLASS quality subscale scores which showed significant relationships especially with the Instructional Support (IS) subscale on the CLASS and the RCS results. The relationship between quality via the CLASS IS subscale and the RCS was the following: 7 = 3.08 average IS CLASS score; 5 = 3.05 average IS CLASS score; 3 = 2.92 average IS CLASS score; 1 = 2.78 average IS CLASS score. These results were significant at $p < .005$.

The reason for presenting the RCS is that the correlation with the CLASS improves when the RCS is used rather than using compliance violation counts. This has been demonstrated in other jurisdictions as well when a system is converted from a nominal measurement to ordinal measurement which is the case with the RCS.

Quality levels were at a fairly high level and were tightly grouped together not demonstrating the usual dispersion as is evident with other quality tools, such as the Environmental Rating Scales. The average scores and the minimum and maximum values for the subscales Emotional Support (ES), Classroom Organization (CO), and Instructional Support (IS) were the following: ES = 6.06 (4.69-7.00); CO = 5.84 (3.75-6.80); IS = 3.00 (1.79-4.44).

CONCLUSION AND RECOMMENDATIONS

This research abstract has added another dimension to the GPMS by addressing key risk indicators and adding these indicators as regularly monitored review criteria. These KRIs would be added to the suggested KCIs and KPIs as suggested in the May 2025 research abstract. The following conclusions and recommendations stand as written from the previous abstract because those analyses have not changed in any way.

The results clearly indicate that the present day GPMS is a rather robust program monitoring system producing excellent distinguishing characteristics that can be used for risk assessment prediction and more targeted technical assistance and training. If totally employed based upon these results a core set of HSPSs, KPI, and KRI could be reviewed at every FA1 review. This could be done through the use of the Regulatory Compliance Scale (RCS) proposed in the previous Results section in which any program that scores at a 1 or 3 level would have targeted technical assistance and training; or if any of the predictor HSPSs, KPIs, or KRIs were out of compliance. This approach would be very cost effective and efficient and decrease the amount of time spent on-site and would focus reviews tying them to the training and technical assistance system resources more directly.

The compliance data distribution clearly demonstrates how the HSPS are significantly better than licensing standards and that the enforcement of those standards is at a high level. HSPS data distribution has always been less skewed than licensing data but not as normally distributed as quality initiative tools.

And lastly, in terms of presenting a view to the general public and one to local programs and staff, possibly utilizing the Regulatory Compliance Scale that utilizes an ordinal scale rather than compliance violation counts may be a more effective way to depict the regulatory compliance results. It also fits well with the scales utilized in CLASS and other program quality tools.