7.2.6 PROGRAM INTEGRITY

6.2 Program Integrity Requirements

HCE, with the support of its subcontractor, Thomson Reuters, is equipped and fully capable of performing the duties of the Program Integrity contractor for the IME. Based on our experience as the current IME SUR contractor, we look forward to the expanded duties of the Program Integrity work. We believe we offer the best solutions for the IME in this function, bringing the experience of a current contractor, as well as the national experience of a well-known and respected data contractor. Through this section of the RFP, we will demonstrate our capabilities and experience so as to leave no doubt that we will fulfill and exceed the expectations of the IME for this contract.

6.2.1 Surveillance and Utilization Review Services (SUR)

HCE is experienced with the SURS component of the Program Integrity requirements, through its current IME SURS contract. We currently perform data analysis and trending to determine aberrant patterns and trends of provider payments, and are well-versed in review of claims and medical records to determine appropriateness of provider billings. We bring this expertise to the Program Integrity contract, adding Thomson Reuters' proven data mining and fraud detection products and services. This combination allows a more targeted and comprehensive approach to data analysis, review selection, and identification of provider billing aberrancies. HCE and Thomson Reuters will work together to bring IME the best solutions in the identification and resolution of provider billing errors, as well as fraudulent activities.

Our base proposal for data analytic tools includes the proven Medstat DataProbe system from Thomson Reuters, plus their associated library of fraud detection algorithms and powerful medical episodes and predictive modeling functions. In addition, we have included an additional, optional proposal of the Medstat Advantage Suite System to provide IME with CMS-certified capabilities for advanced SURS and MARS functions. The DataProbe and Advantage Suite systems are described in detail in product overviews located at the end of Section 6.2.2 on Data Analytics.

Thus, for SURS services, with our base proposal we will use the existing SURS system, supplemented by the powerful Data Probe system and associated fraud detection algorithms, and Medical Episode Grouper (MEG) and Diagnostic Cost Grouper (DCG) capabilities. If our optional proposal for Advantage Suite is accepted then we will replace the existing SURS and MARS subsystems with new, advanced SURS and MARS functions and then use those along with DataProbe those to support our SURS services efforts.

6.2.1.1 State Responsibilities

HCE has standing meetings with the IME Program Integrity (PI) Director and Program Integrity Manager to discuss ongoing and upcoming reviews, changes in policy, and other issues that may affect the work of the Program Integrity staff. The IME directs the work of the Program Integrity contractor, and provides information pertinent to the reviews, such as names of suspended providers, providers on pre-payment review, and determination of services requiring pre-authorization or post-payment review. HCE and Thomson Reuters will work with the IME staff to determine appropriate SUR subsystem reports, frequency of such reports, and additional reports that may be available based on Thomson Reuters DataProbe capabilities.

6.2.1.2 Contractor Responsibilities

HCE maintains a database that contains all the information related to current and past reviews that is keyed off the provider's Medicaid number or NPI. The SUR database is used to log all providers selected for a full review. Reports can be generated from the database to assist with the completion of mandatory State reports and audit support requests. Reports generated from the database provide information to ensure that a minimum of 60 reviews are opened per quarter.

Within the SUR database, there is a current reviewer status selection of "MFCU" and "Referred to MFCU". These two items allow ready production of reports that identify which cases have been referred to the Medicaid Fraud Control Unit (MFCU) and the date the referral took place. HCE also can track cases that were referred from MFCU through a similar process of specific status categories within the drop down boxes.

Please refer to **Tab 5**, **Section 6.1.5**, Operational Procedures Documentation.

6.2.1.2.1 Profiling and Data Mining

a. Provide profiles of health care providers and members through which the quality, quantity and timeliness of services can be identified and assessed.

Through the use of the Thomson Reuters DataProbe system and either the current SURS subsystems or the optional Thomson Reuters Advantage Suite SURS functionality, the HCE team will provide profiles of health care providers and members. These will be used to identify and assess the quality, quantity and timeliness of medical services.

HCE staff has full access to the current SURS Subsystem of the Iowa MMIS. This system creates and displays profiles of both health care providers and Medicaid members using three levels of review; (1) Summary Profiles, (2) Treatment Analysis Profiles, and (3) Claim Detail. Through the creation and use of several hundred statistical indicators, the volume and frequency of health care utilization and its patterns are identified and assessed.

Additionally, Thomson Reuters will bring the power of its tool, DataProbe, to the HCE team. DataProbe enables users to create reports that profile the performance of individual entities (such as hospitals, physicians, or plans) on one or more measures of healthcare outcomes. These profiles also allow for the comparison of the actual performance of each entity with that of a group of similar entities (a norm). In addition, DataProbe for IME will be configured with the Thomson Reuters Medical Episodes Grouper (MEG) and the DCG predictive modeling functions (described in detail at the end of our response to Section 6.2.2). MEG and DCG grouping will enable more sophisticated profiling and comparisons based upon medical episode grouping, clinical classifications with disease staging, and risk scoring in the aggregate and for individual members.

The optional Advantage Suite system will enable additional comparative capabilities, including automatic risk adjustments that take into account population differences such as age-sex, case-mix and disease severity. For example, a user can case-mix adjust the norm to ensure that observed differences between each entity and the norm are not simply the result of differences in the types of inpatient care provided. The Case-Mix Adjustment feature enables us to make valid comparisons between the performance of providers whose cases are primarily simple ones, such as small community hospitals, and providers with a higher proportion of complex cases, such as major urban hospitals with trauma centers or large neonatal intensive care units.

DataProbe delivers a wide array of standard algorithms and analytic templates for retrospective utilization review. The algorithms can be easily tailored to meet the requirements of IME, as DataProbe is designed to flexibly respond to the needs of each customer. The algorithms can range from a simple (e.g., find prescriptions for insulin for patients with no diagnosis of diabetes) to a very complex (e.g., calculate an outlier score for each provider in a specified specialty within a place of service based on multiple peer-group adjusted measures of billing and utilization behavior).

DataProbe for IME will have built-in healthcare intelligence, such as episode groupings and predictive models. Using the DataProbe array of algorithms, we will identify utilization problems that are relevant to IME:

- Patients whose care is inconsistent with practice guidelines.
- Providers whose treatment patterns are inconsistent with clinical standards, the norm for their peers, or with benchmarks or targets for provider performance.
- Utilization patterns inconsistent with the intent of the benefit program.
- Utilization that is in violation of the benefit program or coverage rules (e.g., home health services provided while a patient is in the hospital).
- Claims paid for services that were not feasibly delivered in the billed timeframe, geographic region, or patient cohort (e.g., a psychiatrist billing for private sessions with 55 people on the same day).

If IME accepts our additional, optional proposal for the Thomson Reuters Advantage Suite system, we will also deliver new CMS-certified SURS and MARS functions to replace the current SURS and MARS capabilities of the MMIS. Advantage Suite is described in detail at the end of Section 6.2.2.

b. Provide continuous interrelated statistics in concert with the Management and Administrative Reporting (MAR) function to show how the total health care delivery system and its individual parts are meeting program objectives.

The current SURS subsystem creates and displays several hundred different statistical indicators, each of which may be a function of one or more measurements of routine, ancillary, or clinical service. These indicators are built based on paid claims data from the MMIS claims subsystem. Data from the claims subsystem is used by the MAR subsystem in providing reports on claims processing and payment. HCE reviews the many reports produced by the subsystem as a large part of the basis for its reviews.

The optional Advantage Suite SURS system is a highly adaptable system for comprehensive claims data analysis. A unique aspect of Advantage Suite compared to other SUR systems is the broad clinical capabilities it possesses. These clinically-based capabilities enable the user to explain utilization problems that other statistically-based systems cannot. Thomson Reuters keeps Advantage Suite current with updates to healthcare coding and medical practice protocols. The clinical intelligence built into Advantage Suite helps users discern the following differences in the data:

- Providers who practice outside the norm because they are gaming the system, from those who are employing new evidence-based practice protocols.
- Providers who report high frequencies of only a small number of procedures because they have "poked a hole in the edits," from the providers who have a mix of cases for which those procedures would normally be frequent.
- Providers who have truly suspicious billing patterns, from those who are just unaware of the correct coding procedure, handicapped by faulty billing systems, or focused on revenue maximization within the fine lines of propriety.
- Recipients who are abusing the system, from those who are genuinely ill.

Advantage Suite includes a robust Measures Catalog of almost 3,000 healthcare performance measures to assist with program development and measurement of the effectiveness of health policy decisions and initiatives. With the powerful measures catalog and the ability to create client-specific measures, Advantage Suite allows for easy and consistent reporting on utilization, financial, eligibility, quality and process measures. The optional MARS capabilities of Advantage Suite can help show how the total healthcare delivery system and its individual parts are meeting program objectives.

c. Aid management in the process of ensuring that only medically necessary covered services and items including long-term care and prescription drugs are provided in the appropriate setting at the lowest cost.

We will take a comprehensive approach to assisting IME management in assuring that only medically necessary covered services and items including long-term care and prescription drugs are provided in the appropriate setting at the lowest cost.

First, we will use the current SURS subsystem to compare a provider's utilization and performance to other providers within its peer group. The SURS indicators alone will not determine if a particular service was medically necessary, but they help flag for further review providers whose patterns of care and billing set them apart as outliers. Further drill down into these cases may identify wasteful or inappropriate practices that can be addressed through policy changes, provider education or administrative actions, etc.

Second, we will leverage the capabilities of DataProbe and Thomson Reuters' analytic algorithms. DataProbe includes a highly unique capability called Study Groups that will enhance the HCE team's ability to customize algorithms and analysis specific to IME needs. Study Groups is a capability specifically designed by Thomson Reuters to support powerful longitudinal analysis. The Study Group function enables analysts to define a subset of patients or providers based on patterns of service utilization and link information for this user-defined cohort over time. This capability is critical for outcomes analysis; it enables analysts and reviewers to focus on patients with specific conditions and analyze the outcome of different treatment protocols by providers.

- For example, study groups can be created that contain all of the data relative to an incident (e.g., "Show me all of the medical claims for recipients using a certain drug") or use multiple restrictions including time (e.g., "Show me the recipients whose history includes a certain procedure prior to receiving a certain drug").

Study Groups can be used to compare current practices to IME medical policy, or to evidence-based guidelines. To assist with these comparisons to guidelines, Thomson Reuters maintains a compendium of evidence-based measures endorsed by various national organizations, such as the National Quality Forum, National Committee for Quality Assurance, American Medical Association, etc. Examples of measures that might indicate care that is not medically necessary or lowest cost include Inappropriate Use of Antibiotics in Adults with Acute Bronchitis, and Low Back Pain: Use of Imaging Studies.

The inclusion of a Study Group in DataProbe facilitates linking information for patients using complex criteria and time specifications. Study Groups offers an easy way to look at the healthcare experience of a particular group of patients over time. Study Group linkage is a critical capability that would require difficult SQL programming in other systems. This capability is essential for many types of fraud and abuse analysis, as it allows the creation of cohorts of providers or patients according to complex conditions and the detection of multi-level and multi-party fraud. Brief examples of Study Group reporting follow.

- Whether patients using Oxycontin had any prior diagnosis requiring pain management
- Home health visits billed during a period when the patient was in a nursing home
- Patients with an ambulance trip without a corresponding ER or hospital visit on the same day

As part of our DataProbe solution, we will provide Medical Episodes of Care. Episodes are highly effective at comparing providers' treatment practices, while accounting for the severity of their patients. Episode are an excellent tool to rule out "false positive" outliers, who are more costly because their patients truly are sicker. By identifying the most aberrant patterns, Episodes will help the HCE team identify inappropriate or costly treatment practices more quickly. For example, Episodes can quickly uncover providers who have more frequent hospitalizations for a specific clinical condition, at a given severity level, than their peers.

The Study Groups function is also a capability within Advantage Suite, which is being offered as an option to provide advanced CMS-certified SURS and MARS. Reports can be easily created in Advantage Suite to compare the cost of care in various settings. Utilizing Advantage Suite's extensive catalog of built-in measures, along with the tool's powerful subsetting capabilities, a user can easily report on the costs associated with care in various settings. Results of these higher level reports can be used to drill to further detail, identifying specific providers or procedure codes contributing to the problem. For example, a user may want to compare costs for a given procedure performed in an Ambulatory Surgery Facility to those performed in a hospital setting. The user can create a report in Advantage Suite and aggregate the total payments for the procedure (including professional charges, anesthesia, etc.), comparing costs in each treatment setting.

Third, our optional MARS/SURS offering, Advantage Suite, also incorporates hundreds of pre-defined cost, utilization, and quality measures to support analysis of the appropriateness and cost-effectiveness of care. To cite just a few examples, included are the following:

Confidential Information – Not to Be Released to Third Parties

We present examples of some of the pre-defined cost, utilization, and quality measures that are incorporated into our product to support analysis.

End of Confidential Information

Finally, Thomson Reuters analytic staff are skilled at using the suite of tools at their disposal to assess appropriateness of service utilization and billing. Two examples can help illustrate:

- For one state Medicaid agency, Thomson Reuters performed an extensive analysis of Emergency Room (ER) utilization and coordination of care, to identify target areas for Quality Improvement activity, and to develop a system for monitoring changes in patterns of utilization and coordination of care over time. This study led to the implementation of a hospital-based care coordination initiative.
- In another state, Thomson Reuters identified Medicaid paid hospice claims with a unique code that indicates Medicare should pay primary. The customer estimates potential recoupment of more than $2 million.

d. Create a comprehensive profile of health care delivery and utilization patterns established, in all categories of services including long-term care and prescription drugs, under the Iowa Medicaid Program.

The Iowa Medicaid Program, through its MMIS SURS Subsystem, has created and established parameters and comprehensive statistical profiles for all categories of service reflecting health care delivery and utilization patterns. These profiles are comprised of class groups (peer groups) within each provider and member category of service. HCE currently bases a large portion of its case reviews on data provided by the MMIS SURS subsystem.

The Summary Profile segment of the SURS subsystem supports the development of normal ranges of Medicaid service utilization against which individual providers and members are evaluated. Normal utilization ranges are developed by classifying providers and members into peer groups, computing an average and standard deviation for each statistical indicator by peer group, and then establishing a "normal" range of indicator values as the average of each indicator, plus and minus a predetermined number of standard deviations from the average. Each statistical indicator within the Summary Profile has a norm, or range of acceptable values, developed for it automatically by the subsystem. The above categories of service include long-term care and prescription drugs, among others.

Through the use of the Thomson Reuters DataProbe system and the additional, optional Advantage Suite capabilities, HCE expects to be able to significantly enhance its ability to undertake comprehensive profiling and evaluation of healthcare delivery and utilization patterns. The Thomson Reuters data analysis tools will strengthen our analytical efforts for all categories of service, including long-term care and prescription drugs.

An example of this enhanced ability to profile utilization patterns using DataProbe involves the ability to provide "dashboard reporting" across multiple algorithms for different categories of service. This in-depth profiling function goes significantly beyond the capabilities of the current MMIS SURS subsystem.

Thomson Reuters has used this dashboard approach successfully for its state Medicaid agency customers – one example is an evaluation of dental services. The report examples below offer an idea of how this dashboard reporting is delivered. They demonstrate the ability to target suspicious providers based on ranking results on multiple exception criteria, and to show the aggregate opportunity for recoveries or cost saving for the problematic providers:

Confidential Information – Not to Be Released to Third Parties

Thomson Reuters provides examples of report outputs.

End of Confidential Information

DataProbe, as configured for IME, will have built-in healthcare intelligence, such as episode groupings and predictive models. Using the DataProbe array of algorithms, the HCE team will identify questionable billing and utilization practices that are relevant to Iowa and its policies.

Confidential Information – Not to Be Released to Third Parties

Thomson Reuters provides a list of algorithms successfully used to identify fraud, waste, and abuse.

Confidential Information Ends Here

If IME accepts our proposal for the additional, optional Advantage Suite capabilities to deliver CMS-certified SURS and MARS functions, HCE will be able to provide enhanced SURS reporting. For detailed information on the Advantage Suite features, including enhanced SURS reporting, see the details included at the end of Section 6.2.2.

e. Develop and coordinate the update of the parameters file on the MMIS to classify providers into peer groups using criteria such as category of service, provider type, specialty, type of practice or organization, enrollment status, facility type, geographic region, billing versus performing provider, and size for the purpose of developing statistical profiles by the end of each quarter, assuring that all provider types are reviewed in a one-year period.

HCE works with the IME Core contractor each quarter (or more often if necessary) to review and update the many parameter files within the SURS subsystem in order to either broaden or limit the scope of review of a particular provider type, as IME SURS deems necessary. These parameter files may be revised according to category of service, provider type, "specialty" code, type of organization, enrollment status, geographic region, multiple provider numbers, and provider size. A good knowledge of mainframe programming is required in order to actually accomplish parameter file changes. HCE establishes an annual work plan to ensure every provider type is reviewed and respective data are screened in every one-year period.

With the optional Advantage Suite SURS solution, peer group assignment is easily and flexibly handled through a graphical user interface. The old-style control files are replaced by flexible report objects in easy-to-use menus — measures, dimensions, time periods, and subsets — that become report specifications. All of these objects are available on-line for reporting, in thousands of combinations. They can be easily controlled or changed by the user, to develop customized report content. These customized reporting objects (measures and subsets) constitute a "control file" for which as many libraries can be established as desired.

Advantage Suite provides proven statistical methods for classifying providers of any kind into peer groups and identifying outliers. Two features of Advantage Suite are key to this process: Subsetting and Benchmarking. Subsetting allows users to specify peer group logic that can be saved and used again or modified for subsequent use. The subset criteria can be based on any database attribute. Criteria also can include experience represented in the claims data, e.g., more than $100,000 in billings for the year. Users can easily define or modify the subsetting logic in Advantage Suite using point-and-click selection from a list of allowable English language values for a field or by specifying the values of interest. Subsetting allows users to employ complex logic, such as multiple "and/or" conditions, for example 'generic drugs dispensed in a particular geographic area to patients of a particular age range but not to patients with a certain clinical condition'.

Once a peer group is defined through Advantage Suite Subsetting, the next step is to derive a norm based on a measure of behavior or experience. This is done through Dynamic Benchmarking, where users can easily create an internal peer group norm from any subset of the database. Users can select virtually any field or measure in the database to compare individual providers/beneficiaries to the peer group norm (statistical profile). For example, norms can be created that represent peer group means or upper or lower limits. In addition, users can tell the system to automatically calculate the difference and percent difference between each subject and the norm.

f. Develop and update parameters file to classify treatment into peer groups, by diagnosis or range of diagnosis codes, level of care, or other methodology for the purpose of developing statistical profiles.

An implied portion of the review in (e) above involves the treatment analysis parameter files of the current SURS subsystem. Statistical profiles for each primary diagnosis code reported by each physician and inpatient hospital are developed, using selected parameters, from information in paid claims data. Data are drawn from physician claims, drug claims, and inpatient hospital claims reflecting a date of service within a historical period. Each diagnosis code profile includes a number of statistical indicators relating to services rendered in response to the diagnosis.

Diagnosis code profiles of all physicians and institutions are categorized into class groups or peer groups within each category of service (COS). During a single processing cycle, a physician or institution may fall into only one class group for each COS in which it is

authorized to provide service. Averages and standard deviations are computed for each class group and for each statistical indicator contained within each diagnosis code profile. The diagnosis code profiles of all physicians and institutions within each class group are evaluated against normal ranges established for the class group. If an indicator falls outside the lower or upper limits, it is noted as an exception. Through this process staff is able to determine the diagnosis and treatment relationships occurring in the Medicaid arena.

As stated in (e) above, Advantage Suite users can use the optional SURS replacement system to select virtually any element or measure n the database to create peer group comparisons, including diagnosis codes and other clinically-based treatment classifications.

g. Develop and update the SUR subsystem parameter file with data needed to apply weighting and ranking to exception report items to facilitate the identification of those with the highest exception ranking.

The process of identifying cases and initiating a review begins with an examination of summary profile reports. Examining the statistical profiles of all individual providers and recipients within each class group (peer group) is a key part of the case identification process. A very important first step in the review is efficiently identifying all providers and recipients for whom exceptions are noted and which providers have the highest exception ranking.

Summary profile reports are the primary tool generated by the current SURS subsystem for the detection of potentially inappropriate utilization of Medicaid services. These reports display, for each individual Medicaid provider or recipient, an interrelated set of statistical indicators, which have been selected to reveal those known types of inappropriate utilization. While reports on all providers and recipients are available, information contained in these reports is subjected to automated analysis so that only those providers and recipients who have a strong likelihood of requiring investigation for excessive utilization are displayed as exceptions. The desirability of investigation is quantified by the system and expressed in summary profile ranking reports as a total exception weight value.

One Summary Profile Report, the Exception Review Index Report, provides information on the most likely abusers of the Medicaid Program. There are two versions of this report, one for providers and one for recipients. The reports list providers and recipients in descending order by a total exception weight, a theoretical measure of the likelihood of inappropriate utilization.

The periodic review of the system parameter files conducted by SURS staff and Core contractor staff includes an evaluation of those parameter settings that define the exception weights and ranking process for the Exception Review Index.

The report lists each individual provider and member that was deemed aberrant during the summary profile process. A separate section of the report is provided for each category of service. The provider version of the Exception Review Index Report displays:

- Rank: Providers are ranked in descending order according to their total exception weight.

- Weight: A provider's total exception weight represents the magnitude of its aberrancy relative to all other aberrant providers within its class group. This total weight is calculated by summing the provider's item weight (IW) for all statistical indicators for which the provider was deemed aberrant.
- Class: This is the class group (peer group) into which the provider was classified for purposes of summary profile reporting and exception processing.
- Profile Page No.: This refers to the particular page of the Summary Profile Exception Report where the provider's detailed information is located.

In calculating a total exception weight for each provider, an IW is computed for each statistical indicator for which the provider was deemed aberrant. An IW is a function of four separate weights. As indicated above, working with the IME Core contractor, SURS requests updates to the parameter file settings that will identify those providers with the highest exception ranking.

The Thomson Reuters DataProbe solution has great power and flexibility in structuring weighting and ranking of exception conditions when applying specific algorithms or using an aggregate "dashboard reporting" approach as described in item (d) above.

With the optional Thomson Reuters Advantage Suite SURS replacement solution, users have the capability to create peer groups on virtually any field in the database. Once a peer group is defined, the next step is to derive a norm based on a measure of behavior or experience. This is done through Dynamic Benchmarking, where users can easily create an internal peer group norm from any subset of the database. Users can select virtually any field or measure in the database to compare individual providers/beneficiaries to the peer group norm. For example, norms can be created that represent peer group means or upper or lower limits. In addition, users can tell the system to automatically calculate the difference and percent difference between each subject and the norm. Advantage Suite also provides the ability to perform tests of statistical significance using Z scores and p-values, which can be applied to any report where the user is comparing to a norm and including a performance ratio. Any number of norms and deviations can be ranked and scored, with weighting assigned to each, to produce SURS reports that highlight the providers of greatest interest.

h. Compile provider profiles.

HCE works with the IME Core contractor to compile provider profiles. Reports are produced that reflect compilation of profiles for all providers within a particular peer group. A Summary Profile Exception Report is available for this purpose and contains a comprehensive profile for each individual provider entity. This comprehensive profile will include data from all individual member providers within an entity, should there be two or more. This exception report is usually very large.

The Iowa Medicaid Program has established parameters and comprehensive statistical profiles for all SURS subsystem categories of service. These profiles are comprised of class groups (peer groups) within each provider category of service. The SURS subsystem develops normal ranges

of Medicaid service utilization against which individual providers are evaluated. Normal utilization values are developed by classifying providers into peer groups, computing an average and standard deviation for each statistical indicator by peer group, and then establishing a "normal" range of indicator values as the average of each indicator, plus and minus a predetermined number of standard deviations from the average. Each statistical indicator within each summary profile has a norm, or range of acceptable values, developed for it automatically by the SURS subsystem.

The categories of service reflected in the SURS provider and member profile reports are those categories of service recognized throughout the MMIS. Each category of service is broken down into a list of class groups.

SURS profiles of providers and members are divided or “peer-grouped” into categories of service (i.e.: physician services, dental, institutional inpatient, podiatrist, optometrist). Within each category of service there are anywhere from 10 to 180 statistical performance indicators. A provider profile is then constructed using either any combination of the available performance indicators as desired, or the entire set of indicators. A profile for an ambulance provider, and all ambulance providers within a defined peer group, might include, for example, the following performance indicators.

- Number of ambulance services
- Medicaid payments for ambulance services
- Number of ambulance oxygen services
- Charges for ambulance oxygen services
- Payments for oxygen services
- Average ambulance oxygen units of service per member
- Average ambulance oxygen payment per unit of service
- Average ambulance oxygen payment per member
- Number of air-ambulance services
- Charges for air-ambulance services
- Payments for air-ambulance services
- Average air-ambulance units of service per member
- Average air-ambulance payment per unit of service
- Average air-ambulance payment per member
- Number of disposable supplies
- Charges and payments for disposable supplies
- Average units of disposable supplies per member
- Average payment per unit of disposable supplies
- Ratio of ambulance payments to billed charges

As discussed above, and for each performance indicator, a range of acceptable utilization values is calculated by the subsystem using data from all providers within the defined provider peer group. An average utilization value is calculated for each indicator, along with both an upper limit value and lower limit value, to arrive at what we call a normal range of utilization. The upper and lower limit values are established using a pre-determined number of standard

deviations from the average. This process is completed for each separate category of service within the SURS subsystem and, thus, a comprehensive profile is built for each and every provider and individual member enrolled in the Iowa Medicaid Program.

As described in the items above in **Section 6.2.2** and above on Data Analytics, the Thomson Reuters DataProbe and Advantage Suite systems both have powerful and flexible capabilities to support provider profiling.

i. Maintain a process to evaluate the statistical profiles of all individual providers within each peer group against the matching exception criteria established for each peer group.

The SURS Subsystem Summary Profile Report reflects the most current paid claim activity. Within each class group, individual provider profiles are organized according to one of a number of different data elements. Examples of the data elements that can be selected are:

- provider/recipient number
- provider/recipient name
- provider specialty code
- provider group number
- county

The Summary Profile Report is produced through automated exception processing. This is completed in six steps.

1) A statistical profile for each provider is developed, using selected parameters from paid claims summary data. Each profile consists of a number of statistical indicators relating to various services and the charges for those services.
2) The statistical profiles of all providers are categorized into class groups or peer groups within each category of service. During a single processing cycle a provider may fall into only one class group (one for each category of service in which they fall).
3) The averages and standard deviations are computed for each class group and for each statistical indicator contained within each statistical profile. Only those indicators that are not "0" during at least one quarter of the historical reporting period (meaning a provider was "active" in the service in question) are considered for these computations.
4) The averages and standard deviations computed in (3), above, establish the norms, or exception criteria, for each class group and for each statistical indicator in the profile. The exception criteria for each indicator consist of a lower limit and an upper limit. These class group profiles are reflected in a Class Group Profile Report that reflects the creation of the normal ranges for all available statistical indicators.
5) The statistical profiles of each and every provider within each class group are evaluated, indicator-by-indicator, against the matching exception criteria

established for that class group. If an indicator falls outside the lower or upper limits, it is noted as an exception. Any indicator may be excluded from this exception process for a provider where it is deemed that the indicator is not of significant volume. An exception weight for each statistical indicator is also automatically computed for each provider. A total exception weight is then computed by summing individual indicator weights.

6) All providers for whom at least one exception was noted during (5) above are included in the report. The indicator(s) that caused the provider to be aberrant, along with a total weight indicating the severity of the aberrancy, is displayed. The sum of these total weights is then used to rank providers in order to determine the need for performing further investigation.

This six-step process may be modified to meet any special reporting requirements. The exception process can be restricted to a predetermined list of providers and/or class groups, or a predetermined list of statistical indicators. These modifications are made by HCE and CORE staff revising selected parameters contained in the summary profile control files.

The Thomson Reuters dashboard approach to provider profiling in DataProbe includes a provider utilization report, which is used not only as a reference, but also to identify providers who are outliers on certain measures that may indicate fraud, waste or abuse or identify quality of care issues. This report includes total dollars paid, total number of patients, total number of claims, claims per patient, payments per patient, maximum payment in one day, and maximum patients in one day for each provider. A mean is calculated for each measure, and providers that are three standard deviations beyond the mean for a given measure are highlighted and identified for further review. Detailed claims for those providers would be extracted and reviewed to determine if there is a reason the provider is an outlier on this report, or if the detailed review of claims indicates a potential billing issue.

j. Identify providers who exhibit aberrant practice or utilization patterns, as determined by an exception process, comparing the individuals' profiles to the limits established for their respective peer groups, reviewing each provider type scheduled in that quarter.

The Exception Review Index Report (one of many Summary Profile Reports) provides an indication of and information on the most likely abusers of the Medicaid Program. There are, again, two versions of this report, one for providers and one for recipients. The reports list providers and recipients in descending order by a total exception weight, a theoretical measure of the likelihood of inappropriate utilization. These reports, along with the exception weights, are produced quarterly and are a part of the entire quarterly summary profile process. They may be produced more often if necessary.

The Exception Review Index Report lists each individual provider that was deemed aberrant during the summary profile process. This determination is made within the summary profile process by comparing each individual statistical indicator for each provider to the normal range of expected performance for each respective indicator for all providers within the peer group of the provider in question. This process is explained in item (i) above.

Thomson Reuters has more than 15 years experience in fraud and abuse work in more than 22 state Medicaid programs. The firm has an algorithm library with hundreds of proven algorithms that are readily customizable to IME specific MMIS and policies.

Thomson Reuters will utilize its fraud solutions to develop original, valid, fraud algorithms from scratch along with customizing select fraud algorithms from its extensive Payment Integrity Algorithm Library. The HCE team will continuously refresh the supply of new algorithms for the state's specific requirements. With each algorithm developed by Thomson Reuters, IME will also receive the following information:

- Purpose of the algorithm, including the potential fraud and/or abuse associated with the algorithm
- Summary of the functional specifications
- Key Findings. Depending on the algorithm, the key findings will identify a mix of aberrant providers, services, and benefits. The findings may isolate a particular geographic area where the potential fraudulent and/or abusive behavior is most prevalent
- Recommended actions. Potential edits, areas for prepay review, and policy changes will be identified. It is not uncommon for a fraud or abuse scheme to be so prevalent in a state that changes in the MMIS edits will stop the payments. This is further enhanced by targeted provider review prior to payment and changes to the policy. Where requested, Thomson Reuters will provide best practices based on the experience of other payers, government and provider alike
- High-level summary results along with claim level detail results. Where appropriate, a geographic analysis of the results will be plotted and mapped

k. Review SUR subsystem reports to identify providers who exceed calculated norms based on the SUR subsystem parameters identified and input to the SUR subsystem parameter file.

The current IME SURS Unit process of identifying cases and initiating reviews begins with an examination of summary profile reports and, where needed, treatment analysis reports. Examining the statistical profiles of all individual providers and recipients within each class group (peer group) from the SURS subsystem is a key part of the case identification process. A very important first step in the review is efficiently identifying all providers and recipients for whom exceptions are noted and which providers have the highest exception ranking.

The IME SURS management team meets regularly to identify potential reviews through the annual and quarterly provider review work plans, analysis of the above routine and ad hoc profile reports from the SURS subsystem, and other databases and referrals.

The Thomson Reuters solutions utilize a Medical Episode Grouper (MEG), a proprietary grouping methodology. This is a rigorous, clinically rich episode construction methodology

that incorporates inpatient, outpatient, and drug experience into clinically relevant episodes of care. Applied to the database with each database update, episodes give you the ability to profile physicians and other providers, evaluate chronic disease management programs and analyze services delivered to a patient for treating or preventing health problems. By using MEG-created episodes, decision-makers can accurately evaluate the success of programs designed to manage the cost and quality of healthcare across the continuum of care in all delivery settings.

An example of a profiling application is the Cost and Utilization Analysis. This analysis involves looking at measures of cost and utilization compared to either an episode mix adjusted normative comparison or on an episode specific basis for those episode types that are most relevant to the specialty of the providers being profiled. MEG includes automatic episode mix adjustment. Generally users start at a high level measure of cost or utilization such as total cost per episode and perform variance analysis in an attempt to determine what the cost and/or utilization components are driving the observed high level differences.

l. Perform analysis of service and billing practices to detect utilization and billing problems, including but not limited to incidental or mutually exclusive procedures, unbundling of procedure codes and bill splitting.

Analysis of service and billing practices may necessitate drilling down to the Treatment Analysis segment of the SURS subsystem. As indicated above, there are treatment analysis reports, such as the Physician Treatment Analysis Report and Institutional Treatment Analysis Report. These reports display profiles of the treatment rendered by physicians and hospitals and include those diagnosis-treatment relationships that appear to deviate from class group (peer group) norms.

For example, the Physician Treatment Analysis Report displays relevant indicators of exceptional utilization for the types of service rendered by physicians. Such indicators as the average number of physician procedures and drug prescriptions per recipient by age group and within a particular diagnosis can be displayed. The number of different drugs, by age group and within a particular diagnosis, can also be listed.

The Physician Treatment Analysis Report is produced using an automated exception processing methodology, similar to the summary profile exception processing methodology. The treatment analysis selection control parameters are contained in a treatment analysis control file. The following options are available to extract desired, targeted information:

- Request selected providers
- Request selected class groups
- Request by selected diagnosis codes
- Request by exception diagnoses
- Request by specific age groups
- Select only single diagnoses
- Select only multiple diagnoses
- Format by omitting procedure detail

- Select procedures by frequency
- Format by omitting drug detail
- Select drugs by frequency

The Physician Treatment Analysis Report displays a series of diagnosis code and drug profiles. The diagnosis and drug codes themselves are reflected. Each code profile consists of a summary line followed by the detail procedures and drugs utilized in treatment. Each procedure code and drug code used, along with a count of the frequency of application, and percent of total recipients receiving the procedure or drug is then displayed. In part, this information may be used to review potential billing problems and incidental or mutually exclusive procedures. These data may be used to detect such things as unbundling of procedure codes and bill splitting.

Confidential Information – Not to Be Released to Third Parties

Thomson Reuters describes some of their analytical algorithms successfully used to detect billing and utilization problems.

Confidential Information Ends Here

As an example of reviewing billing practices, HCE undertook an initial project to review payments for durable medical equipment to determine whether aggregate rental payments exceeded the state's policy of paying no more than 150% of purchase price. The first round of such reviews netted $155,757 in recovered overpayments. Additional rounds of this type of review are on-going and may eventually result in cost avoidance projections.

On October 1, 2008, the IME changed from an Ambulatory Patient Group (APG) payment system to the more widely used APC payment system for outpatient claims. After this conversion, HCE identified an MMIS system error that resulted in claims paying at more than the maximum allowable amount of units of service for certain procedure codes. HCE identified and recovered more than $1.1 million in overpayments related to this issue. HCE also collaborated with the Core Systems contractor to implement the needed correction in the MMIS.

HCE has identified and recovered approximately $500,000 in capitation claims paid after the death date of the Medicaid member. These incorrect payments were primarily paid to the Iowa Medicaid mental health and substance abuse services managed care contractor. HCE also suggested a MMIS system change that was implemented by the Core Systems contractor to prevent many of these incorrect payments. On an ongoing basis, HCE continues to submit MMIS credits to recover capitation claims paid after the death date of the member.

m. Receive referrals on potential provider fraud and abuse from all the other Iowa Medicaid Enterprise (IME) units for a preliminary investigation and coordinate IME related referrals to the MFCU of suspected cases of provider fraud.

Referrals are received in the SURS Unit from nearly every other IME contractor at one time or another. Each provider inquiry or complaint received in writing or on the SURS Program Integrity Hotline is investigated to determine appropriate actions. Referrals are assigned to a SURS Senior Reviewer to complete a Preliminary Review from the date of the referral. All referrals must undergo **at least** a preliminary review.

The Operations Manager, SURS and Investigations, or Account Manager is the contact for all referrals. Staff forwards all calls and e-mails to the Operations Manager. When a referral is made, the Operations Manager gathers all pertinent information. All referrals received by a Reviewer are forwarded to the Operations Manager. "Live" telephone calls are transferred to the Operations Manager at the time of the call.

After a preliminary review or during a full review, it may be determined that a case should be referred to the Medicaid Fraud Control Unit (MFCU). Referrals to MFCU are indicated in the following circumstances.

- A referral to the SURS Unit with a referral reason that indicates suspected fraud or abuse.
- Provider is significantly non-compliant with DHS guidelines.
- Provider has continued aberrant practice after documented education regarding the issue.
- Preliminary review of the data either suggests or clearly substantiates fraud or abuse.

Referrals to MFCU are made only when there is reliable evidence that overpayments discovered during a review are the product of suspected fraud committed by the provider and/or one or more of the provider's staff or contractors. Referrals for suspected provider abuse also must meet the above standard.

When fraud and/or abuse are suspected, the Reviewer contacts the Operations Manager to discuss the findings. If necessary, the Account Manager is notified of the concerns. Prior to referring any case to MFCU, HCE conducts due diligence to assure that no policies or guidance have been issued or conveyed to providers through informal communication that could be interpreted as making the conduct permissible. The HCE staff coordinates with MFCU to offer ongoing education to MFCU staff on basic Medicaid program issues, as well as participate in new MFCU investigator orientation.

The Operations Manager notifies the MFCU Bureau Chief. The Reviewer gathers all documentation related to the referral. All documentation is sent to the MFCU for its investigation.

MFCU, HCE, and the DHS Policy Unit engage in regularly scheduled meetings to provide case status updates on any referrals made between the units. These meetings are referred to as "Policy Meetings." Participants include the Program Integrity Account Manager and Operations Manager, SURS and Investigations; Representative from Managed Care and Clinical Services; representative from Long Term Care Services; representative from State

Program Integrity staff; representative from MFCU; attorneys from the Attorney General's office; and other invited participants such as the OIG. The IME Program Integrity Administrative Assistant also attends the meeting to take notes and produce minutes of the meeting, with action items for follow-up.

n. Analyze and propose cost avoidance initiatives and regular self-review requests to providers, including credit balance reviews for hospitals and other institutional providers.

Thomson Reuters has a wide array of analytic tools and algorithms to pinpoint problems with claims edits, payment policies, and payment practices that can expose the Medicaid program to error, abuse, and overpayment. No claims system is perfect; edits and payment policies evolve over time and can have unintended consequences, so constant vigilance is required. The Thomson Reuters data analysis methods identify areas where policy and edit changes can close the vulnerabilities.

In addition to the Thomson Reuters analytic tools, any member of the HCE Program Integrity staff may propose a change that could be initiated by the unit as a potential future cost avoidance initiative for the IME. Initially, the person identifying the possibility of cost avoidance may simply voice the issue to the Account Manager, the Payment Integrity Specialist, the Database Management Administrator, or the Operations Manager, SURS and Investigations.

Staff discusses potential cost avoidance issues in Operations Assessment Committee meetings, and in ad hoc meetings, as appropriate. The person identifying the cost avoidance opportunity is invited to participate in this discussion. Results of potential cost avoidance recommendations that can result in savings are included in the following list.

- Change in Medicaid policy
- Change in Iowa Administrative Code
- Change in coding, claims, or payments
- Change in Iowa Medicaid Provider Manual
- Operational change
- MMIS systems change (CMR, SAM, etc.)

The Account Manager approves, denies, or suggests modifications to the proposal. Once the proposal is approved, the person identifying the opportunity works with the Payment Integrity Specialist, Database Management Administrator or designee, to gather data to document the potential financial impact of the proposed change.

The Account Manager is responsible for presenting cost avoidance proposals to the State. The Account Manager and the Payment Integrity Specialist calculate projected cost savings and financial credit to the Program Integrity contract. The Payment Integrity Specialist and the Database Management Administrator generate data to determine the value of the change being proposed, based on a historical trend of paid claims.

After review cases have been entered into the SURS Database and the preliminary review is complete, we have the option of directing a provider to complete a self-audit.

The Account Manager discusses with the Program Integrity Director the issues involved with the provider and the reason why HCE believes a self-audit would be a better option than a full review. If approved by the Director, we proceed.

An Ad-hoc letter is drafted to the provider indicating the State is directing a self-audit review for one or more issues. The letter includes the issue(s) for the provider to review, the time-frame for returning the audit results, directions for making payment and request for a corrective action plan.

Once the audit results are received, HCE reviews the information and determines if the provider has completed the audit to State expectations. If we approve of the results, a letter is drafted telling the provider we have accepted their audit finding and corrective action plan. If HCE does not agree with the audit results, we either ask the provider to further expand what they have reviewed, or go on-site and complete the review to our specifications.

Medicaid Informational Letter No. 281, dated July 23, 2009, sent to Iowa Medicaid Hospital providers, reintroduces a standard method or process for self-identifying credit balance situations after payments are received. Credit balances can occur for various reasons but the most common are billing errors or payments being received from more than one payer source (Medicaid and private insurer, Medicaid and Medicare, etc.)

The IME requests that institutional providers identify Medicaid credit balances and submit a credit balance report along with payment within 30 days of identification. Credit balance reporting forms are available on the IME Web site.

Providers submit credit balance reports to the IME with or without an accompanying refund check. All reports and refund checks are scanned into OnBase and are retrievable from the OnBase Miscellaneous Check Queue and the General Correspondence Queue.

Provider checks and requests for claim credits and/or adjustments are processed according to established procedures covering these functions.

HCE undertook a project late in 2005 to compare Iowa's long-term-care bed-hold policy with that of other states. We obtained policy data from 12 other states that, when averaged, appeared to reflect a policy of approximately 3 days per month. Iowa's policy was 10 days per month. We estimated an annual savings of $1,638,240 if DHS would consider a policy revision. Effective 12/01/2009, the Department has made changes in its LTC bed-hold policy to pay 25% of the full per diem per hold-day and will allow payment only where the facility's occupancy rate is 95% or more.

6.2.1.2.2 Reviewing

a. Provide a basis for conducting medical reviews to verify that covered health care services have been documented and that payments have been made in accordance with state and federal policies, regulations, and statutes.

As the current IME SUR contractor, HCE conducts post-pay medical record reviews based on algorithms from the SUR subsystem within MMIS and from referrals. Providers are selected from the SUR subsystem based on algorithm weight. We select providers that are in the high and normal weight categories as directed by the State. A preliminary review is conducted on all referrals to determine if they should be presented to MFCU for investigation or if they should be opened as a SUR referral and undergo a full review. HCE requests medical records on all opened reviews to verify that they are properly documented and that payment was made in accordance with State and Federal policies, regulations and statutes. A medical records request letter is mailed to the provider giving it 30 days to provide the requested documentation. The review is conducted and if there are findings, a Preliminary Request for a Tentative Overpayment (PROTO) letter is mailed. The provider has 15 days to submit a request for re-evaluation and additional documentation. Any additional documentation submitted by the provider is reviewed and used in the determination for the final review findings. If an overpayment is determined after the additional records are review, a Finding and Order for repayment letter is mailed. The provider will then have 30 days to appeal or remit payment. The submission of additional records can also lead to an educational letter outlining how they did not meet the Iowa Administrative Code or a no findings letter. In all cases, we respond to each provider with the findings from the reviews.

b. Protect Medicaid participants against the occurrence of overutilization and underutilization of health care services by providing support for the following processes:

1. **Referring providers, whose practices are suspect, to the appropriate medical component for review**
2. **Initiating administrative actions to curtail aberrant behavior**
3. **Referring suspect cases to an investigative agency**

In the normal course of a SUR review, decisions are made that protect the members from both over and underutilization of services. If the review indicates fraudulent practices on the part of the provider, a referral will be made to MFCU for further investigation. We also will refer providers to the Program Integrity Manager in cases where a sanction is necessary. HCE will discuss with State Policy staff issues that can be resolved through contacts with case managers or through changes to the Iowa Administrative Code. We will work with other IME subcontractors to ensure proper payment is made for Medicaid services.

c. Conduct review of providers (including nursing facility (NF) and intermediate care facility for the mentally retarded (ICF/MR) based on SURS exception criteria.

HCE is currently under contract to open at least 60 reviews per quarter and to review each provider type at least once per year. Intermediate care facilities for the mentally retarded (ICF/MR) are included in the current rotation. Additionally, this provider type may be reviewed based on a referral or at the request of the State. SUR staff also reviews providers designated as provider type 20 nursing facilities in MMIS. These include skilled nursing facilities, nursing facilities for the mentally ill, and residential care facilities. We complete a review on a quarterly basis using data from the data warehouse related to room and board duplicate payments when a resident of a nursing facility elects the hospice benefit. At times, both the nursing facility and hospice will bill for room and board for the same period of time. There is currently not an edit within MMIS to prevent this duplicate payment from happening. Identified overpayments are collected from the nursing facility. Reviews of the nursing facilities and ICF/MRs will continue to be a focus in our work as the Program Integrity contractor.

d. Perform the provider reviews pursuant to the Department's requirements.

HCE meets on a bi-weekly basis with the PI Director and PI Manager to discuss ongoing reviews, upcoming areas of focus, and other issues related to contractual obligations. The State can direct that a specific provider or provider type be reviewed by the Program Integrity staff. Additionally, other State staff can suggest through a referral or meeting that a particular provider or provider type be reviewed. The State has given HCE the discretion to review any provider at any time. We will continue to conduct SUR reviews based on the guidelines set forth by the IME. The review process includes the selection of a provider through either the MMIS SURS sub-system reports, referral or at the direction of the State. Medical records are requested through our Medical Records Request letter. The provider then has 30 days to submit these requested records. Once the records are obtained, they are reviewed to verify that they properly document the service billed and that payment was made in accordance with State and Federal policies, regulations, administrative code, and statutes. If the records show any deficiency in meeting the above requirements, a PROTO letter is mailed. The provider has 15 days to request a re-evaluation and submit additional documentation. If the review does not reveal any deficiencies, a letter informing the provider of no findings and thanking them for participating is mailed. If the provider chooses to submit additional records after the receipt of the PROTO, the new records are reviewed to determine if they resolve our original findings related to the deficiency. If the issue is resolved, a no findings letter is sent to the provider and the review is closed. If the records do not resolve the original finding, a Finding and Order for Repayment letter is mailed. The provider has 30 days from the date of this letter to appeal or remit payment.

e. Perform all provider review activities and recovery activities for erroneous provider payments.

We have established State-approved procedures for conducting review and recovery activities. We ensure that we open a minimum of 60 cases per quarter and review all provider types yearly per contractual requirements. Based on data analysis, claims review, referrals, and any additional sources, HCE conducts reviews of providers' documentation to assure appropriate

payment for services provided and billed to the Iowa Medicaid Enterprise. Record reviews are conducted as needed to determine accuracy of the billing; however, there are cases where a claims review is sufficient, particularly in cases of OCR errors. HCE will initiate review processes as appropriate and communicate with the providers on a regular basis regarding recovery activities. Any review resulting in a recovery is communicated to our Payment Integrity Specialist. The Payment Integrity Specialist has the responsibility of working with the provider to ensure the overpayment is collected in a timely manner. An overpayment can be collected via a check from the provider or through an offset within the MMIS. In addition, if the overpayment will have an adverse impact on the provider's financial position, they have the option to request an extended repayment plan in writing. The Payment Integrity Specialist will conduct analysis of the provider's recent billing history within MMIS to establish what the monthly recovery amount from claims offset should be. The benchmark offset is 25% of the monthly payment. This dollar figure is used to determine the length of the repayment plan agreement. Any agreement must be approved by the PI Director. Once the PI Director has approved the length of a plan, the Payment Integrity Specialist drafts a letter to the provider with the terms. Once the plan is in place, the provider has the option to pay via check or through a claims offset. If the provider chooses the check method and defaults, a 100% offset of all future payments is initiated with MMIS until the debt is satisfied. Any overpayment amount that is deemed uncollectable after six months of no recovery activity, the amount is referred to Revenue and Collections for further processing. All recovery activities are reported via the CMS-64 report on a monthly basis to Fiscal Management.

f. Conduct field reviews on request, including managed care activities and reviews of health maintenance organization (HMO) and Medicaid managed behavioral care encounters.

HCE currently conducts on-site field reviews throughout the year. We conduct a minimum of three on-site reviews per quarter. These on-sites can be the result of random selection, follow-up to a self-audit, a referral, or at the direction of the State. All provider types that receive Medicaid payment are subject to an on-site review. When it is determined that a provider will be the subject of an on-site review, a letter is mailed to the provider two weeks prior to the on-site informing them that a team from the SURS unit will coming to their location. The letter does not include the claims that will be the subject of our review. The review team prepares for the on-site by pulling a sample of claims to be reviewed from the MMIS. A team of two or three reviewers goes on-site for a period of one to two days depending upon the circumstances of the review and the size of the claim sample selected. At the time the team arrives, the provider is given the list of claims for which documentation must be provided. Records are reviewed while on-site and copies are made as needed. An exit conference is held with the provider at the time the team leaves to give them the preliminary results of the review. The wrap-up of the review then proceeds as any other review. This would include, as necessary, the issuance of appropriate letters based on the findings. We will continue to schedule on-site reviews as determined appropriate and as directed by the IME.

g. Perform the analysis of provider practice patterns and review of medical records on-site in provider offices.

We currently conduct a minimum of three on-site reviews per quarter. These on-sites can be the result of random selection, follow-up to a self-audit, a referral, or at the direction of the State. Quarterly on-site audits are identified during the normal quarterly claims review process, and include providers identified as outliers based on claims data, as well as providers whose claims are within expected ranges. Providers selected for on-site reviews are notified two weeks prior to our arrival. They are not given a list of selected claims prior to the start date of the review. The review team prepares for the on-site by pulling a sample of claims to be reviewed from the MMIS. Once on-site, we provide the provider with a list of paid claims for which they must provide documentation. An on-site records review is conducted like other SUR post-pay medical record reviews. The review staff verifies that the provider properly documented the services and that payment was made in accordance with State and Federal policies, regulations and statutes. HCE responds to each provider with the findings from the reviews. These can result in a no findings, educational or over payment demand letter. Additional details on on-site reviews can be referenced in f. above.

h. Perform preliminary and full investigations on all cases opened from referrals.

HCE currently performs a preliminary and full investigation on all referrals received. The purpose of doing so is to determine if the referral should be presented to MFCU or if it should be opened as a SUR review. Please refer to **Section 6.2.5** for more detail on how HCE will approach the investigative portion of the RFP. The preliminary review includes the initial verification of the allegations presented in the referral. For example, HCE would attempt to verify that the provider was an active provider in the period specified in the referral, verify that there were claims processed for the dates and codes specified and determine what the past review/referral history is for the provider. We present our findings on each preliminary review to MFCU in our bi-weekly meetings. Those that are accepted by MFCU stop at the preliminary investigation stage. We track all referrals accepted by MFCU in our SURS database. On occasion, a referral that has been accepted by MFCU will be returned to SURS for administrative recovery. At that time, the review is moved from a MFCU status in the database and assigned to a reviewer for a complete records review. Those that are declined by MFCU, move into a full investigation status. A full investigation results in opening a review and requesting medical records from the provider to verify properly documented and paid services.

i. Monitor compliance with any new federal or state laws that are related to mandatory provider documentation as a part of a preliminary investigation.

HCE currently subscribes to a State of Iowa e-mail listserv entitled "DHS on-line rule and manual changes." It is received weekly and reviewed by the Account Manager for impacts to the current rules applied by SUR during the review process. HCE interacts on a bi-weekly basis with the Program Integrity Manager for the State who discusses policy change with the MFCU Director, the Attorney General's representative and HCE. Additionally, our Payment Integrity Specialist is tasked with researching the CMS Web site weekly for changes that may

impact how we apply Medicare rules in cases where there is not an Iowa Medicaid rule addressing the issue.

j. Annually review claims for all provider types. Reviews selected will be based on outlier status, any additional information that indicates potential billing abnormalities or both. The reviews will involve performing both in-house and field audits (annual and cumulative).

HCE has a master list that includes all provider types that receive Medicaid payment through the MMIS. Each provider type is assigned to one of the four quarters in a calendar year. At the beginning of each quarter, reports are pulled from the SUR subsystem for each provider type identified to be reviewed that quarter. These reports assign a review weight based on the algorithms within the subsystem. Providers are selected based on information housed within the algorithms. The State has mandated that SUR look at providers that fall in the high and normal ranges. A list of providers chosen each quarter is forwarded to the PI Director for approval. Both desk review and on-site audits are scheduled based on the selections. Reviews are also initiated based on referrals and those requested by the State. Thomson Reuters DataProbe will provide an enhanced review of data from the SUR subsystem, and will allow us to more effectively identify and target aberrant claims, patterns, or trends.

6.2.1.2.3 Case Follow-up and Reporting

a. Provide management with information to assist in overall program direction and supervision.

HCE meets on a regular basis with State staff to discuss review findings and billing patterns. These discussions assist the State in determining changes that can be made to policy that will ensure proper payment for Medicaid services. HCE sends suggestions to policy staff, including bureau chiefs, with specific changes and clarifications. These suggestions can be based on decisions handed down by administrative law judges after a hearing regarding a SURS review appealed by a provider or by reviewers who have questions about a section of the code during the normal review process. HCE chairs policy meetings on a bi-weekly basis to review findings, concerns, and issues that have arisen during the investigative or review process. These meetings are attended by the Medicaid Fraud Control Unit Director, State PI staff, a representative from the Attorney General's office, and HCE.

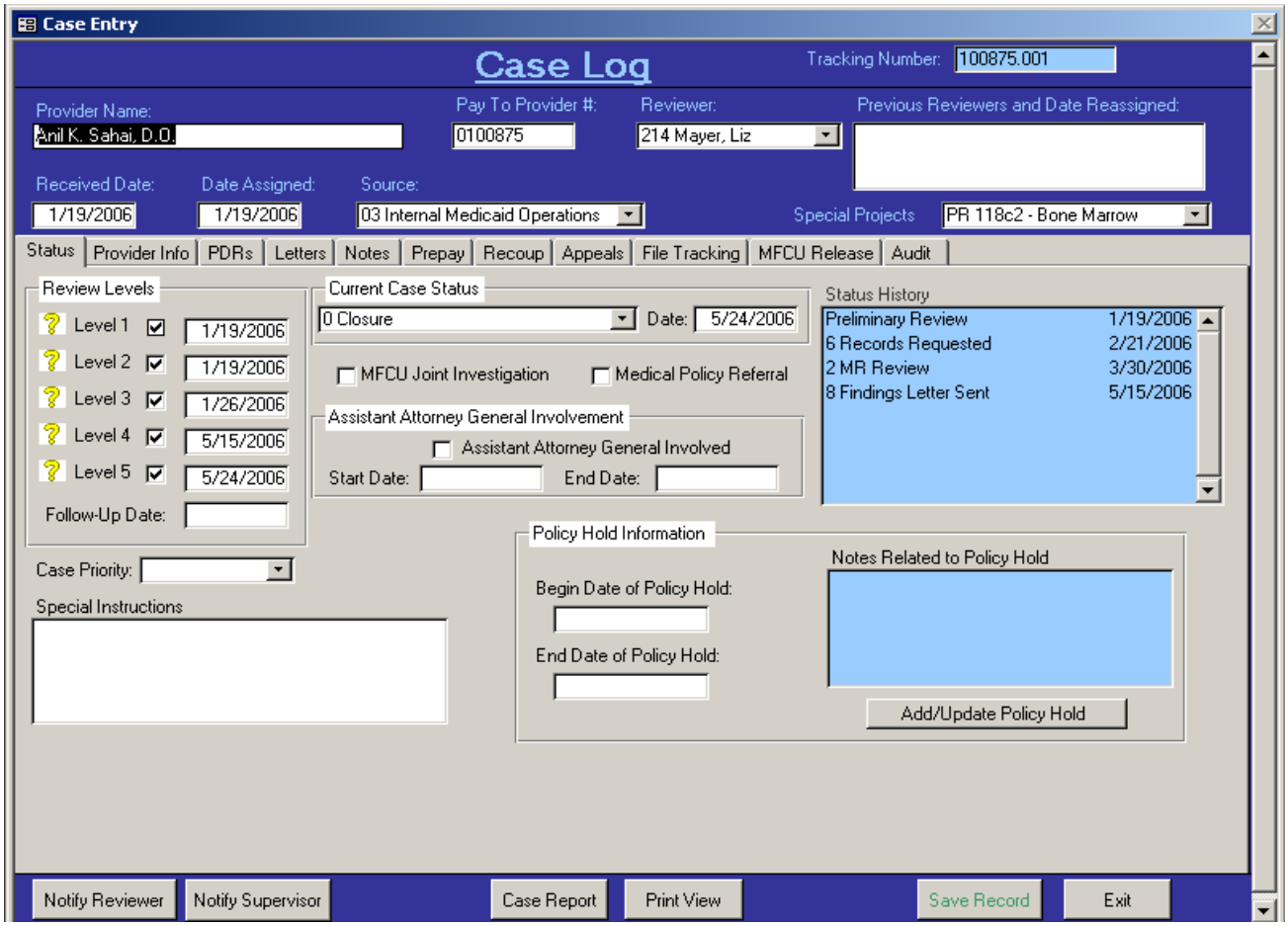
b. Have written procedures for all SURS activities, including review criteria for all provider groups.

Refer to **Tab 5, Section 6.1.5** Operational Procedures Documentation for a detailed description of HCE's procedure process.

c. Report findings from medical record reviews to the Department on a quarterly basis.

HCE, as the IME SUR contractor, maintains all provider-related Program Integrity cases in a database known as the "SUR Database." Cases are entered and assigned to reviewers at the management level, and then monitored by both management and reviewers on an ongoing basis. Each case is assigned a unique tracking number, and progressively documented from cases initiation to case closure. Weekly, each reviewer receives via email a report of cases assigned to them. Case source, case notes, review findings, and monetary recoveries are some of the items documented in this database. Refer to **Screen Shot 1** for an illustration of the main case data entry screen.

Screen Shot 1: Main Case Data Entry Screen



Additional details relating to each case contained in the fields of the SUR database include, but are not limited to, the following:

- Name of the provider reviewed
- Dates on which the review was begun and concluded
- Notes and comments regarding the findings and issues of the case
- Notes and comments regarding specific actions taken based on case findings

Based on the content of the SUR database HCE is prepared to produce and submit quarterly (or more frequently if desired) reports to the Department summarizing findings from medical record review activity with the above items and any other data contained in the database the Department would find useful.

d. Meet periodically with the Department SURS staff to discuss individual cases reviewed and determine action to be taken.

HCE meets on a bi-weekly basis with the PI Director and PI Manager to discuss all referrals received in the prior two weeks and to discuss current review findings. It is an opportunity to discuss which referrals should be developed further through the SUR process and which should be referred to MFCU for investigation. The meeting also allows for discussion of review findings with the PI staff. State staff gives input as to whether an educational or recoupment letter would be the better option. This meeting also is an opportunity for the PI staff to learn what issues are most prevalent for the various provider types.

e. Refer providers requiring sanctions to be imposed against them to the Department in accordance with current Iowa Administrative Code rules on sanctions.

During the course of a review or through the referral process, if HCE believes a provider should be considered for sanctioning, a discussion is held with the PI Manager. HCE provides the PI Manager with all relevant and available information in order to make an appropriate decision on whether the provider's actions warrant sanction activity. Typically, a referral to the PI Manager would be initiated when a provider has an ongoing history of billing errors, has a significant percentage of billing errors, or is non-compliant with requests for information. If a provider continues to be non-compliant after an educational letter, the provider may be referred for sanction activity.

f. Initiate appropriate action to recover erroneous provider payments.

1. **Notify the Core MMIS and Provider Services contractors of requested actions on providers, including requests to recover payment through the use of the credit and adjustment procedure in the case of erroneous payments, such as wrong provider incorrect amount, wrong procedure, etc.**
2. **Under the direction of the Department, direct the Core MMIS contractor to process refunds to providers who have been identified as having been underpaid.**

HCE's Payment Integrity Specialist is responsible for ensuring the recovery of erroneous provider payments is tracked and for recording deductions from paid claims in the MMIS by completing the following general procedure. If a provider does not submit a refund check or money order to the IME it becomes necessary to place a credit against future claim payments to the provider in order to recover overpayments. The progress of claims offsets is tracked from one MMIS payment cycle to the next in the IME SUR Accounts Receivable database.

1. Inappropriate payments to providers may result from one or more errors, such as incorrect provider number, incorrect dollar amount or claim pricing, incorrect procedure code or revenue code, or incorrect recipient state ID number.

   HCE first prepares for claims offset data entry by initiating the following steps.

   - Review applicable findings letters and related documents to verify overpayment amounts.
   - Review the hard copy case file for each provider, to whom a new findings letter has been issued, for supporting documentation if necessary.
   - Refer to the Provider Information and Recoupment Information tables in the SUR Accounts Receivable database to locate provider records that contain accounts receivable outstanding for 37 days or more since the date of a recoupment findings letter.

   Where a deduction from a provider's future claim payments is necessary, the Payment Integrity Specialist accesses and views the provider's current claims activity in the MMIS. HCE then ascertains whether there will be a claim volume sufficient to retire the entire overpayment through claims offset.

   MMIS gross adjustments or individual claims adjustments are prepared and submitted to the IME CORE Unit contractor through the following steps.

   - Prepare a credit adjustment for each provider where a decision to deduct an outstanding SUR account receivable from future claims payment is made.
   - Submit all credit adjustments to IME CORE through the OnBase template spreadsheet process.
   - Verify that a lump-sum credit in the appropriate amount has been entered against the provider's account.
   - Request another query to display all claims, paid from the date of the credit itself to the present date.
   - Determine whether the recovery of the entire overpayment was accomplished in the payment cycle.

     a. If the total recovery appears to be accomplished within the payment cycle, sum the claim payment amounts to verify the sum is equal to or greater than the amount of the overpayment credit.

b. If the total recovery was NOT within the payment cycle, the MMIS will automatically generate a new gross adjustment to show a "phantom" payment to the provider. The "phantom" payment will temporarily zero out the credit balance, providing a payment remittance reflecting all paid claims applied to reducing the credit balance. The resulting artificial payment is the difference between the outstanding debt and the total claims payments in the payment cycle. The difference between the original and artificial payment amounts should be equal to the recovered amount.

- Additional MMIS payment cycles may be needed to retire a credit balance.

  a. Review any additional payment cycles by repeating the previously described process and noting any additional paid claims that reduce the credit balance.

  b. Note the transaction control number (TCN) batch numbers generated by MMIS when reviewing gross adjustments for provider numbers and paid date spans.

HCE notifies and works with the Core MMIS and Provider Services contractors concurrent with completion of the above procedures. Notifying these contractors of necessary recoupment actions by IME SUR is vital to the successful operation of the whole IME team. This communication with these IME contractors will ensure the provider receives adequate notice of actions taken to recover improper payments and will prevent any unintended duplication of recovery efforts or any operational errors. HCE is fully committed to the concept of an entire IME team with all players contributing toward the success and efficient operation of the Iowa Medicaid Program.

2. In the course of performing post-payment reviews of providers, HCE may on occasion discover an instance where a provider has been underpaid by the MMIS for one or more reasons. Our data mining efforts periodically result in discovery of payment anomalies based on incorrect programming code or pricing information, for example.

   Under the direction of the Department, HCE has the capability and the procedures necessary for preparing and submitting individual claim adjustments, or lump-sum gross adjustments, through the OnBase adjustment e-form process, to the IME Core contractor in order to pay necessary additional funds to providers where appropriate. HCE maintains supporting documentation for such adjustments and understands the importance of delivering clear direction in paying additional funds to providers. At the time the Core contractor is notified, HCE notifies Provider Services of such actions to prepare them for any questions they may receive from providers. In some instances HCE may request Provider Services initiate these types of adjustments as the circumstances warrant.

g. Meet all the federal certification standards for operation of surveillance and utilization review functions.

Refer to **Tab 5, Section 6.1.11** Regulatory Compliance

h. Follow up by sending findings letters and collecting overpayments or processing refunds for underpayments resulting from Payment Error Rate Measurement (PERM) errors in those years that Iowa participates in the PERM project.

Refer to **Tab 5, Section 6.1.9** Payment Error Rate Measurement (PERM) Project

i. Receive and review Explanations of Medical Benefits (EOMBs) and follow up as needed.

HCE currently has a Reviewer assigned to investigate all Explanations of Medical Benefits (EOMBs) that are returned by Medicaid members. The Reviewer investigates each returned EOMB by following up with the member to verify his or her concern. If the Reviewer's investigation indicates a potential overbilling, the investigation is elevated to a review and follows the normal review process. Medical records are requested through our Medical Records Request letter, giving the provider 30 days to submit the requested records. Once the records are obtained, they are reviewed to verify that they properly document the service billed and that payment was made in accordance with State and Federal policies, regulations, administrative code, and statutes. If the records show any deficiency in meeting the above requirements, a PROTO letter is sent to the provider. The provider then has 15 days to request a re-evaluation and submit additional documentation. If the review does not reveal any deficiencies, a letter informing the provider of no findings and thanking them for participating is mailed. If the provider chooses to submit additional records after the receipt of the PROTO, the new records are reviewed to determine if they resolve our original findings related to the deficiency. If the issue is resolved, we issue a no findings letter and the review is closed. If the records do not resolve the issue, a Finding and Order for Repayment letter is sent to the provider. The provider has 30 days from the date of this letter to appeal or remit payment.

An example of where this process resulted in a saving to the State involved emergency room services for a facility in Davenport. The member returned the EOMB with a note indicating that they had not received the services billed to Medicaid from the facility in question. The provider was unable to provide the documentation to support the services and indicated in a call that they had no record of that person being in the emergency room.

j. Adjust claims to recover inappropriate provider payments that result from optical character recognition (OCR) scanning errors.

OCR scanning errors occur on occasion due to the scanning process missing the decimal point in the units field of a claim. Also, hand-written numbers on claims may result in OCR errors. As a result of these errors, the claim may process and pay at an amount more than requested by

the provider. MMIS Claims Edit 351 often identifies claims that pay incorrectly due to OCR errors. HCE's DBMA monitors the results of this edit every Monday after the weekend's payment cycle. A comparison of the paper claim documentation with the MMIS claim is made to confirm the OCR errors. The DBMA initiates claim adjustments as necessary based on this review.

Starting in August 2007, HCE, through its data-mining process, began to notice huge payment errors resulting from certain flaws in the IME electronic screening and entering process for Iowa Medicaid claims. To date, HCE has identified and successfully adjusted $1,163,400 in inflated payment errors. This project has resulted in the IME Core Unit contractor making revisions to its claims entering process.

k. Coordinate referrals of cases with and between the MFCU according to the following criteria.

1. **Refer all cases of suspected provider fraud to the MFCU.**
2. **Promptly comply with a request from the MFCU for the following:**
   - **i. Access to, and free copies of, any records or information kept by the Department or its contractors.**
   - **ii. Computerized data stored by the Department or its contractors. These data must be supplied without charge and in the form requested by the MFCU.**
   - **iii. Access to any information kept by providers to which the Department is authorized access by section 1902(a)(27) of the Social Security Act and section 42 CFR 431.107 of the federal regulations and protection of the privacy rights of Medicaid members.**
3. **On referral from the MFCU, initiate any available administrative or judicial action to recover improper payments to a provider.**

HCE currently shares cases as appropriate with the MFCU and will continue to do so based on approved criteria.

1. HCE has developed a very strong relationship with the State MFCU unit. There is a scheduled bi-weekly meeting attended by the MFCU Director, State PI staff, an Attorney General representative and HCE at which we discuss new referrals, pending appeals and policy change. This meeting is our opportunity to discuss each referral and make the determination if HCE will develop further through our review process or if MFCU will open a case based on the information gathered to that point. In addition, if HCE receives a referral that warrants immediate MFCU involvement, the Account Manager will contact the MFCU Director via email or phone to discuss the referral.
2. HCE provides MFCU all documentation gathered in the course of its review at no cost. This includes hardcopy or electronic information. HCE provides MFCU access to all information available regarding each referral. HCE will work with MFCU to continue to provide access to provider information that is available to the

Department under applicable sections of the Social Security Act and the Code of Federal Regulations.

3. On occasion, MFCU will refer cases back to HCE for administrative recovery. Typically these referrals occur because a county prosecutor will decline to prosecute the provider. HCE follows its normal review process in these cases and makes the necessary recovery administratively.

l. Follow up on overpayments identified by the CMS Medicaid Integrity Contractors (MICs).

HCE will be recovering overpayments determined through reviews conducted by the MICs. This process will be similar to what HCE already does for PERM overpayment recoveries. As the MIC process for Iowa started in September 2009, we have not had the opportunity to make MIC recoveries at this time. HCE has been involved from the beginning with the State and CMS regarding this new process. We have participated in teleconferences regarding this new process in order to gain a better understanding of the expectations. Procedures regarding this process will be written, with input from the PI Director, once the MIC reviews identify an overpayment.

m. Record payments received in the IME accounts receivable system for GAAP reporting and bank account reconciliation purposes.

HCE records provider payments into three venues as follows.

- IME SUR Accounts Receivable Database
- IME SUR Case Database
- IME SUR Performance Tracking Reports for Current Fiscal Year and Contract-to-Date

The process of recording payments received in the IME in a manner that fulfills all generally-accepted accounting principles (GAAP) and Medicaid Recovery Account reconciliation purposes is described below.

If a provider check or money order is received and is indexed in the IME Core Unit OnBase Imaging System, HCE populates and updates each of the above records with the following payment information for the case overpayment indicated.

- Date of the check or other payment instrument
- Provider numbers, both legacy and NPI
- Check amount
- Cash control number for check (9-digit number assigned by SUR)
- Debt Status (Paid in Full or Partial Payment)
- Bank deposit date (Use day after receipt date in OnBase)
- The check's DCN (Document Control Number) in OnBase
- Name of Case Reviewer
- Notes (Provide notes reflecting Federal/State funds and MMIS adjustment)

If it becomes necessary to place a credit against a provider's future claim payments to satisfy the debt, for each claims offset amount, HCE enters the following data into each of the previously described venues.

- Date of Claims Offset (Payment cycle date in the MMIS, always a Monday)
- Provider numbers, both legacy and NPI
- Payment Type (select Claims Offset)
- Claims Offset (dollar amount of the offset)
- Debt Status (Paid in Full or Partial Payment)
- DCN (use the OnBase DCN # of the adjustment e-form)
- Name of Case Reviewer
- Notes (indicate refund satisfied in full or in part and Federal/State funds)

After HCE records all checks, money orders, and claims offsets into the IME SUR Accounts Receivable database for a given month, the information is provided to the state Data Warehouse, and becomes part of the IME Accounts Receivable System, through an Accounts Receivable template spreadsheet process.

HCE uses a special query to export this information from the IME SUR Accounts Receivable database into the spreadsheet template. Each IME unit issuing overpayment invoices to providers and processing receipts and other refunds is responsible for completion of an Accounts Receivable spreadsheet and providing this information to the Data Warehouse. Information from all IME units is combined to form the IME Accounts Receivable System.

The constructed query, in Microsoft Access, will be returned with the following column headings.

Month	Invoice Date	Pos Adj Amt	Deposit Date
Unit	Invoice Nbr	Pmt Amt	Deposit Control Number
Entity	Adj Date	Offset Amt	Notes
Entity Nbr	Begin Bal	Red Amt	
Type	Inv Amt	End Amt	

The information presented in the query reflects all new overpayment determinations for the month in question and all checks received or claims offsets occurring on all new overpayments as well as those outstanding and carried over from the previous month. Once HCE creates this spreadsheet file, it is saved and named after the month for which it is created. HCE maintains a complete history of all accounts receivable transactions in order to allow the Division of Fiscal Management the opportunity to not only reconcile the current month's recovery account but to make any historical reconciliation adjustments as may be necessary.

A special feature of Microsoft Access creates the required spreadsheet file. Once Accounts Receivable information is complete for the month, the file is stored on the IME local network and is retrieved by the Data Warehouse staff. The file is then uploaded to the DHS IME Web site.

For Medicaid Recovery account reconciliation purposes, HCE's Accounts Receivable file includes the check's deposit date, OnBase Document Control Number, check number, and other necessary notes. For IME SUR Unit recoveries, if a check or money order is received, the day following the receipt of the instrument is considered the date of deposit. The document control number may be either the OnBase Document Control Number of the image of the check or money order, or it may be the cash control number assigned to the instrument. The notes section is intended for key words or other small notations but is intended to include such indications as to whether the recovery represents 100% Federal funds, 100% State funds, etc.

Once the Accounts Receivable files are loaded to the IME Web site, and before the fifth business day of the succeeding month HCE verifies the accuracy of the uploaded file sent to the Data Warehouse. This verification ensures Fiscal Management the file is complete, there is no loss of data during the process of uploading files to the website, and all GAAP requirements are met. Any discrepancies are reported to the Data Warehouse immediately. As stated above this website file is utilized by Fiscal Management for both quarterly CMS-64 reporting purposes and the Medicaid Recovery account reconciliation in a timely manner.

n. Upon request, assist the Department with policy-related items, such as updates to the state plan, Iowa Administrative Rules, Iowa Code, and provider manuals.

HCE will assist the Department with policy-related items such as updates to the state plan, the Iowa Administrative Rules, Iowa Codes and provider manuals. Assistance may be related to needed updates identified through Program Integrity processes (data analysis, medical necessity review, SUR review), or may be provided at the request of the Department.

o. Maintain and update operational procedures as necessary and in a format designated by the Department.

Refer to **Tab 5, Section 6.1.5** Operational Procedures Documentation for a detailed description of these processes.

p. Log and prepare all payments to be deposited in the state-owned title XIX recovery bank account according to RFP Section 6.1.8 Banking Policies.

Each morning, and throughout the day, the HCE Payment Integrity Specialist, or designee, accesses the Core Unit OnBase Client Workflow InBox to view images of all checks not previously reviewed that are being made ready for deposit, and to identify such checks that appear to satisfy outstanding receivables, either fully or in part, as determined by IME SUR. The Provider Information Table in the SUR-maintained database reflects all current providers

on whom a review is being conducted or to whom an overpayment or other payment of Medicaid funds, deemed inappropriate, has been made, identified, and is currently outstanding.

In the OnBase Workflow InBox, check documents are arranged in ascending Julian date order and according to the time they were "dropped into" OnBase. A document may include just one check or several hundred checks. When any such check has been identified as a SUR check staff will utilize the OnBase procedure for logging each check on behalf of SUR and for deciding whether the check may be deposited or must be held, returned to the provider, or deemed void.

To log a check and identify it with the SUR unit, staff gives attention to the following information.

- Check Date
- Check Number
- Check Principal
- Check Principal Classification
- Check Total
- Name of Payor
- Party On Behalf Of (If Applicable)
- CCN (Cash Control Number, assigned by SUR)
- Check Description
- Financial Institution
- Check Status (Deposit, Hold, Return, Void)

The logging process includes SUR staff assigning a Cash Control Number (CCN) to each SUR check. A portion of this number makes reference to the Julian date (i.e.: 2009, 180th day). Another portion refers to the IME Unit number, and the last portion indicates the number of the check in the batch in question.

For purposes of classifying the principal amount of the check, there are currently 16 sub-accounts in the state's Medicaid Recovery Account. The IME SUR Unit has its own check classification category. The check principal amount in nearly all cases is the entire check amount.

HCE staff makes a decision regarding the status of a given check. Based on supporting documentation the check is either deemed ready for deposit or will require special treatment. For example, there is a need to address checks and/or supporting attachments that bear the words "Paid In Full" or similar language. Due diligence is exercised with checks from, for example, an attorney that may imply payment in full. In these cases, staff consults with the Program Integrity Account Manager, and, as needed, the state Attorney General's office.

When all required check or money order information has been entered, staff closes the indexing process. This moves all logged checks within the respective documents into a

"completion" queue. Checks stored in this queue are referenced and their log information becomes available for printing or other purposes.

At the end of each particular reviewing session staff makes a note of the "queue time" of the last check observed. A log of these cutoff points is kept in an Excel spreadsheet and serves as a marker for determining which checks are new during the next review session and which ones staff has already reviewed.

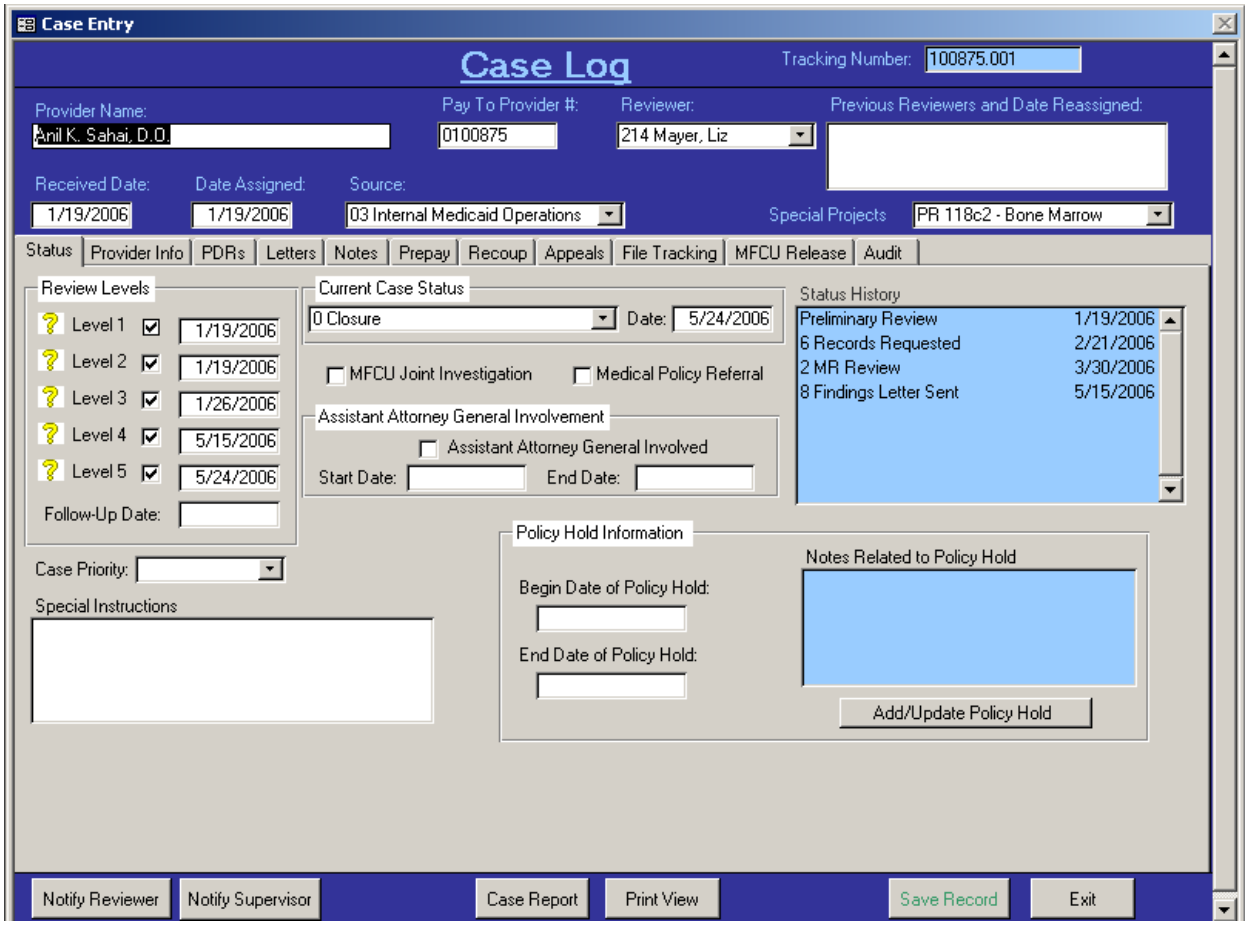
Checks deemed ready for deposit by HCE are directed to a special Deposit queue within OnBase where they are then gathered by the IME Revenue Collections Unit for physical deposit. The queues containing all checks ready for deposit and those checks that have been identified and claimed by a specific work unit can be accessed and viewed by the SUR unit. If a check has been claimed in error by another work unit, this affords all work units an opportunity to view these additional queues for checks they may be expecting.

HCE continually meets or exceeds the performance requirement of logging and indexing checks on behalf of the SUR unit within one business day of the check's arrival into the appropriate Check Queue. This is one of the performance indicators on the Monthly and Quarterly Performance Scorecards HCE submits to the Department. We will continue to apply these same standards of quality and reliability to the new Program Integrity contract.

q. Meet the following reporting requirements.

HCE, as the current IME SUR contractor, maintains all provider-related Program Integrity cases in a database known as the "SUR Database." Cases are entered and assigned to reviewers at the management level, and then monitored by both management and reviewers on an ongoing basis. Each case is assigned a unique tracking number, and progressively documented from cases initiation to case closure. Weekly, each reviewer receives via email a report of cases assigned to them. Case source, case notes and monetary recoveries are some of the items documented in this database. **Screen Shot 2** illustrates a screen shot of the main case data entry screen.

Screen Shot 2—Main Case Data Entry Screen



1. **Produce and submit monthly to the Department a report summarizing provider review activity, including the following information in the report at a minimum:**
   - **i. Names of providers reviewed**
   - **ii. Dates of each review**
   - **iii. Review findings**
   - **iv. Actions taken**
   - **v. Outcome of referral authorization review**
   - **vi. Educational letters sent**

Additional details relating to each case contained in the fields of the SUR database include, but are not limited to, the following:

- Name of the provider reviewed
- Dates on which the review was begun and concluded
- Notes and comments regarding the findings and issues of the case
- Notes and comments regarding specific actions taken based on case findings
- Notes and comments regarding outcomes of referrals and authorizations

- Indications of educational letters mailed to providers where deemed appropriate

Based on the content of the SUR database HCE is prepared to produce and submit monthly (or more frequently if desired) reports to the Department summarizing provider review activity with the above items and any other data contained in the database the Department would find useful.

2. Produce a quarterly identification of the medical services for which overutilization is most prevalent.

HCE prepares many reports reflecting case review activity, recoveries of overpayments, cost avoidance projections, and other related activities. We also have full access to the huge array of summary profile, treatment analysis, and claim detail reports that are produced on a monthly, quarterly, and ad hoc basis by the SUR subsystem of the MMIS. These reports and the data supporting them can be used to produce quarterly identifications of medical services where over-utilization is most prevalent. Case reviews and medical services analyses that indicate or suggest over-utilization are also the topic of regular meetings among HCE staff, Department PI staff, and the MFCU.

On both a monthly and quarterly basis HCE provides to the Department a Performance Tracking Report that reflects each individual provider, grouped by review project according to type of provider, where the finding of an overpayment is present. This report also reflects all recoveries of these respective overpayments. By reviewing this report, by review project code, the Department can obtain an indication of which types of providers appear to exhibit significant overutilization.

HCE has full access to the SUR Subsystem of the Iowa MMIS. This system creates and displays profiles of both health care providers and Medicaid members using three levels of review; (1) Summary Profiles, (2) Treatment Analysis Profiles, and (3) Claim Detail. Through the creation and use of several hundred statistical indicators the volume and frequency of health care utilization and its patterns is identified and assessed. These profiles may not necessarily assess the quality of the services themselves, although we can get an idea of the extent to which a provider's overall utilization compares to its peers.

Summary profile reports are the primary tool generated by the SUR subsystem for the detection of potentially inappropriate utilization of Medicaid services. These reports display, for each individual Medicaid provider or recipient, an interrelated set of statistical indicators, which have been selected to reveal those known types of inappropriate utilization. While reports on all providers and recipients are available, information contained in these reports is subjected to automated analysis so that only those providers and recipients, who have a strong likelihood of requiring investigation for excessive utilization are displayed as exceptions. The desirability of investigation is quantified by the system and expressed in summary profile ranking reports as a total exception weight value.

One Summary Profile Report, the Exception Review Index Report, provides information on the most likely abusers of the Medicaid Program. There are two versions of this report, one for providers and one for recipients. The reports list providers and recipients in descending order by a total exception weight, a theoretical measure of the likelihood of inappropriate utilization. This report is a quarterly report. Currently, the Account Manager, Supervisor of Operations and Program Integrity, DBMA, and Payment Integrity Specialist review and use this report every quarter to, in part, form the basis for the quarterly case selections. We have concluded the Exception Review Index Report may be the single, most useful report available in the MMIS for identifying those services where overutilization may be most prevalent. We will continue to use it and will enhance its capabilities through Thomson Reuters' DataProbe.

On a bi-weekly basis HCE staff meets with the Department's PI Director and PI Manager to discuss the status of open review cases and further discuss services and provider types that appear to reflect significant overutilization. Discussions typically focus on particular areas where additional reviews may be needed or where the PI staff should focus their efforts.

6.2.1.2.4 Appeals

a. Prepare documents and assist in appeal hearings for all SURS cases that result in an appeal by the provider.

Providers have the right to appeal the findings documented in the final demand for overpayment letters. If a provider does appeal, no collection activity commences. HCE has the responsibility to put together the appeal binders that include all the documentation to support the findings. A copy of the binder is mailed to the Administrative Law Judge (ALJ) and the appellant 10 days prior to the hearing. HCE has the option to use an attorney from the Attorney General's office, but we only involve the Attorney General if the appellant has a lawyer or if it is felt that the hearing will involve a particularly difficult provider. To date, HCE has been upheld in 75% of all appeals.

6.2.1.3 Performance Standards

HCE, as the current IME SUR contractor, fully understands and is continually prepared to meet and exceed the many performance standards required in the SUR segment of the Program Integrity contract. Our experience in the Iowa Medicaid arena makes us the most qualified candidate to deliver on these standards with the highest level of quality and integrity.

a. In calculating recoveries from SURS and provider review activities, delineate the following:

1. Measurable and quantifiable recoveries, which are actual recoupments made and money received.

HCE quantifies and measures recoveries that come from provider-submitted checks and money orders and that also are accomplished through credits or offsets against a

provider's future claim payments in the MMIS. HCE records and measures recoveries using three (3) venues.

- IME SUR Accounts Receivable Database
- IME SUR Case Database
- IME SUR Performance Tracking Reports for Current Fiscal Year and Contract-to-Date

If a provider check or money order is received and is indexed in the IME Core Unit OnBase Imaging System, HCE populate and update each of the above records with the following payment information for the case overpayment indicated.

- Date of the check or other payment instrument
- Provider numbers, both legacy and NPI
- Check amount
- Cash control number for check (9-digit number assigned by SUR)
- Debt Status (Paid in Full or Partial Payment)
- Bank deposit date (Use day after receipt date in OnBase)
- The check's DCN (Document Control Number) in OnBase
- Name of Case Reviewer
- Notes (Provide notes reflecting Federal/State funds and MMIS adjustment)

If it becomes necessary to place a credit against a provider's future claim payments to satisfy the debt, for each claims offset amount, HCE enters the following data into each of the previously mentioned venues.

- Date of Claims Offset (Payment cycle date in the MMIS, always a Monday)
- Provider numbers, both legacy and NPI
- Payment Type (select Claims Offset)
- Claims Offset (dollar amount of the offset)
- Debt Status (Paid in Full or Partial Payment)
- DCN (use the OnBase DCN # of the adjustment e-form)
- Name of Case Reviewer
- Notes (indicate refund satisfied in full or in part and Federal/State funds)

Accumulating the above data in the above respective records allows HCE to easily measure and quantify recoveries of overpayments. Over the course of the entire HCE contract period from July 1, 2005, through November 30, 2009, HCE has accumulated cash collections and claims offsets totaling $12,600,274. This breaks down as follows.

- $3,683,788 in actual cash collections from regular SUR case reviews
- $8,916,486 in actual cash collections from other SUR PI activities (credit balance self-audits, OCR error discoveries, duplicate payments, other provider billing errors, etc.)

In our regular monthly and quarterly reports to the Department we routinely quantify and display all data relative to provider recoupments. We can easily graph or otherwise illustrate this recovery data at the desire of the Department.

2. **Avoided costs, which are those expenses eliminated or reduced as reducing future costs of the Medicaid program (such as identifying a new MMIS edit that will reduce costs of Medicaid claims).**

HCE routinely recommends cost avoidance and savings initiatives to the Department and employs a formal process for bringing potential initiatives to discussion and eventually to quantified savings projections.

IME SUR staff discusses potential cost avoidance issues in Operations Assessment Committee meetings, as well as ad hoc meetings, as appropriate. The person identifying the cost avoidance opportunity participates in this discussion. Results of potential cost avoidance recommendations that can result in savings are included in the following list.

- Change in Medicaid Policy
- Change in Iowa Administrative Code
- Change in Medicaid Provider Manual
- Change in coding, claims, or payments
- Operational change

MMIS Systems change (CMR, SAM, etc.)

HCE's Payment Integrity Specialist and DBMA, along with the assistance of a SUR Reviewer where necessary, complete the following tasks to calculate and project future cost avoidance.

- Determine an error rate to quantify the extent and volume of Medicaid overpayments through a review of historical MMIS payments.
- Generate and compile data through a data warehouse query or any other applicable database.
- Calculate the historical financial impact of the reimbursement issue in question through a designated payment date.
- Calculate the financial impact of the proposed recommendation through the same designated payment date.
    - The data compiled must clearly identify how the proposed change will result in the amount of cost avoidance being projected.
    - The data compiled must further reflect the amounts of inappropriate payments as represented by the determined error rate.
- Summarize the payment data within an Excel spreadsheet on a monthly basis, representing two to three years of prior utilization.
- Calculate the future value of the changes being recommended based on the historical value of those payments deemed inappropriate.

- Create a bar or similar chart to display the monthly amounts of inappropriate payment reflected on the spreadsheet.
- Apply linear regression analysis (a feature provided by Microsoft Excel) to the historical pattern of inappropriate payments to generate a regression line representing the historical trend or pattern of the payments in question.
- Identify future monthly values of either the changes proposed or the continued payments for the activity in question through the above mentioned trend line.
- Use Microsoft Excel to display the mathematical equation of the trend line on the face of the chart.
- Use this equation to project the future monthly amounts of payments associated with the issue.
- Include any prospective or retrospective increases in funding or appropriation passed by the Iowa Legislature and approved by CMS into all cost avoidance projections. Document these adjustments with spreadsheet files created for each projection.
- The Account Manager presents all recommended modifications, along with the calculated cost avoidance projections, in a comprehensive package to the IME PI Director, and other IME staff as appropriate.
- The projections based on the recommended changes are clearly linked to the cost avoidance amounts claimed in the Performance Tracking process.
- The IME PI Director reviews the data presented and determines if the cost avoidance figures presented are reasonable and acceptable.
- The Payment Integrity Specialist maintains a ledger of cost avoidance projections that comprises the monthly amount claimed.
- Include new, approved cost avoidance measures in the monthly calculations and reports starting the month immediately following approval by the IME PI Director.

Accumulating the above data using the above process allows HCE to easily measure and quantify potential cost avoidance and savings. Over the course of the entire HCE contract period from July 1, 2005, through November 30, 2009, HCE has accumulated and accounted for cost avoidance initiatives and projections totaling $14,675,304.

In our regular monthly and quarterly reports to the Department we routinely quantify and display all data relative to cost avoidance. We can easily graph or otherwise illustrate this savings data at the desire of the Department.

3. Enhanced revenues that are additional recoveries that the SUR staff identified, including those funds that are included in pending appeal hearings at any point in time.

HCE identifies a number of other potential recoveries that may either be collected through our established recoupment process or be a case where the Department may decline recovery in favor of provider education or another alternative. HCE continually maintains an accounting of all potential recoveries that reside in cases appealed where a hearing or a decision is pending.

HCE staff review many cases and investigate referrals that may not necessarily result in cash collections. Some examples follow.

- Reviews of Consumer Directed Attendant Care (CDAC) providers where the Department has elected to direct HCE to educate the provider rather than recover an overpayment.
- Reviews of physician coding and billing that result initially in provider education but with a directive to recover inappropriate payments during a re-review if the apparent problems are not resolved.
- Reviews that result in overpayments based on the use of a particular procedure code but where the Department allows a revised payment based on a less expensive code.

Accumulating the above data using our established accounting and recording processes allows us to easily measure and quantify such enhanced revenues and recoveries suspended due to the appeal process. As of November 30, 2009, HCE has accounted for $804,950 in recoveries suspended due to the appeal process.

In our regular monthly and quarterly reports to the Department we routinely quantify and display all data relative to enhanced revenues and suspended recoveries. We can easily graph or otherwise illustrate this recovery data at the desire of the Department.

b. Annually review a random minimum sample of 0.5 percent of paid claims.

HCE utilizes the SUR subsystem reports to review all claims for all provider groups over the course of the year. Provider types are reviewed per a quarterly calendar. All claims for each provider type are posted by the MMIS and reported in the SUR sub-system. HCE staff analyzes these "Summary Profile" reports to choose specific providers or claim types to be reviewed; the reports are integral to case review. Based on the number of provider types under review each month, we ascertain that this performance standard is inherently met through the referenced SUR analytical process.

1. The reviews will involve performing both in-house and field reviews.

Both in-house and field reviews result from the process described in **Section 6.2.1.3.b**. above.

2. Review cases must include providers who exceed calculated norms and a random sample of providers who do not exceed norms.

Current HCE SURS procedures meet this requirement. The SURS Subsystem "Summary Profile" reports are analyzed each quarter. These reports list all providers with paid claims, grouped together by provider type and category of service. An exception weight is calculated by the SURS Subsystem for each provider. This exception weight is a summary calculation of statistical indicators that may indicate a provider exceeds relevant standards when compared to other providers in the same provider type and category of service. One provider from each provider type with a high exception weight is chosen for review. Also, at least one provider with a normal or average exception weight is randomly chosen for review.

c. Open a minimum of 60 cases for provider reviews during each quarter according to the following criteria.

Current SUR activity involves opening in excess of 60 cases for provider reviews each quarter. These cases include both referrals from outside sources and also cases developed internally within the SUR unit. HCE will continue to meet this requirement.

1. All cases referred from the Department must be opened in the quarter referred.

HCE has consistently met this standard and will continue to meet this requirement.

2. Review cases must include both providers who exceed calculated norms, and a random sample of providers who do not exceed norms.

Current HCE SURS procedures meet this requirement. The SURS Subsystem "Summary Profile" reports are analyzed each quarter. These reports list all providers with paid claims, grouped together by provider type and category of service. An exception weight is calculated by the SURS Subsystem for each provider. This exception weight is a summary calculation of statistical indicators that may indicate a provider exceeds relevant standards when compared to other providers in the same provider type and category of service. One provider from each provider type with a high exception weight is chosen for review. Also, at least one provider with a normal or average exception weight is randomly chosen for review.

3. The contractor must describe in its proposal the percentage of cases to be opened for providers who exceed the norm and the percentage of cases for the random sample.

HCE generally chooses, from each provider type, one provider who exceeds the norm on the SUR Subsystem Summary Profile reports, and one provider who doesn't. In

certain areas where the probability for potential problems is high, more providers from within each category may be chosen.

d. On average for all cases, complete reviews within 90 days when all documentation required necessary to perform the review has been obtained.

HCE has taken proactive steps to continually improve the efficiency and timeliness of the review process. The business processes related to initiating reviews, such as analyzing data and requesting records, is now centralized at the management level, and automated to a large extent. As provider records arrive, the case is immediately assigned to the reviewer. Case reports, with calculations of the numbers of days the review has been open, are analyzed on at least a weekly basis. Contract management staff can easily follow up with the reviewer on a case before it falls behind targeted goals for the review. The Account Manager and Operations Manager, SUR and Investigations, are readily available to assist the reviewer when necessary to keep the review on track. These steps will allow the majority of reviews to be completed within the 90 day time period.

e. Proposals for cost avoidance measures submitted by SURS staff members or other entities will be analyzed and addressed with a response for proposed action (including the option of closure) within 30 days of the date the proposal was submitted.

The HCE Program Integrity Account Manager is responsible for presenting cost avoidance proposals to the State. The HCE Payment Integrity Specialist calculates projected cost savings and financial credit to the IME SUR contract. The Payment Integrity Specialist and the DBMA generate data to determine the value of the change being proposed, based on a historical trend of paid claims. In order for credit for cost avoidance to be applied toward contractual performance, the following criteria must be met.

The data must clearly identify how the proposed change will result in the projected cost avoidance being projected.

The Payment Integrity Specialist and the DBMA work together to generate the future value of the changes being recommended based on the past value of the service. A trend line of the future value of the proposed change is generated identifying the monthly value of the changes proposed. Those figures are graphed and discussed with the Account Manager. Adjustments are made as determined appropriate.

Prospective or retrospective increases in funding or appropriation passed by the Iowa Legislature and approved by CMS are included into all cost avoidance projections. HCE documents these adjustments with spreadsheet files created for each projection.

The recommended modification, along with the proposed cost avoidance projections, is formulated into a comprehensive package for presentation to the IME PI Director. The PI Director reviews the data presented and determines if the cost avoidance figures presented

appear reasonable and legitimate. If questions exist regarding the proposed cost avoidance calculations, or the changes being proposed, the PI Director returns the documents to the Account Manager for clarification and possible modification.

HCE may also present the cost avoidance package to other IME Unit Managers and the Policy Unit. Approval of the cost avoidance initiative may also depend on approval by additional IME staff.

HCE's established process for presenting cost avoidance initiatives is fully documented and includes a procedure to encourage and ensure such initiatives are analyzed, addressed, and responded to no later than thirty (30) days from the date the proposal was submitted. This is one of the performance indicators on the Monthly and Quarterly IME SUR Performance Scorecard.

Once the IME PI Director, and any additional IME staff as appropriate, has accepted the proposed changes, the documents are submitted to the IME Policy Unit, IME Core Unit, or other units for development of proposed rules or system modifications as necessary. The monthly value of the cost avoidance initiative is not claimed by HCE until the proposed change has been acknowledged and approved by the above IME parties.

f. Proposals for cost avoidance measures that have been approved for follow-up ` action to be implemented by the SURS unit will be addressed with the identified follow-up action within 45 days of the date that the proposal was approved by the SURS contract director.

As indicated in **Section 6.2.1.3(e)**, once the PI Director, and any additional IME staff as appropriate, has accepted and approved any proposed changes, all cost avoidance proposal documents are submitted to the IME Policy Unit, IME Core Unit, or other units for development of proposed rules or system modifications as necessary. HCE has procedures, including logging of the entire process, that ensure we will follow up and monitor the progress of these proposed rules, system modifications, or other revisions within forty-five (45) days of the date the proposal was approved by HCE's Account Manager. This is another of the performance indicators on the Monthly and Quarterly IME SUR Performance Scorecard.

6.2.2 Data Analytics

We are proposing a comprehensive solution to address the scope of work under this data analytics section of the RFP. To meet the data analytic requirements, HCE proposes Thomson Reuters (www.thomsonreuters.com) as a major subcontractor, which will provide its proven healthcare data analytics products and services. HCE has previously worked with Thomson Reuters (Healthcare) Inc. to help state Medicaid agencies determine provider overpayments and underpayments and to identify suspected fraud, waste, and abuse of program services. Thomson Reuters also has worked with state Medicaid agencies across the country to improve

budget forecasting and identify strategies for improving healthcare delivery to Medicaid program members.

Thomson Reuters is the nation's leader in healthcare and Medicaid decision support. Its nearly 30 years of Medicaid experience originated with The MEDSTAT Group, Inc., which now is the Core of the Healthcare Payer group of Thomson Reuters. Unlike the nation's other major healthcare data analytics company, the healthcare business of Thomson Reuters is objective in its analyses and is not owned by a health plan that delivers medical services.

UNBIASED, OBJECTIVE, INDEPENDENT
The Healthcare business of Thomson Reuters is independently owned. It is not controlled by any health plan, insurer, fiscal agent, provider, or other organization with a stake in the decisions made by its clients. Its only interest is to provide its customers with information that is accurate, credible, reliable, and actionable. Its independence allows it to support the program integrity function in an objective, impartial manner that is free from ownership conflicts of interest.

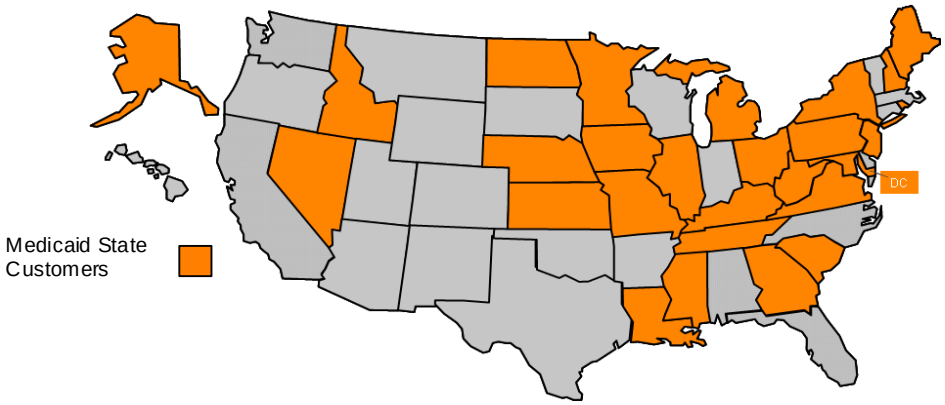
Thomson Reuters is the world's leading source of intelligent information for business and professionals. Thomson Reuters combines industry expertise with innovative technology to deliver critical information to decision makers in the healthcare, financial, legal, tax and accounting, scientific, and media markets, powered by Reuters, the world's most trusted news organization. The company:

- Is the largest independent global information services company in the world.
- Employs over 50,000 people in 93 countries.
- Each day, one billion people around the globe use a Thomson Reuters information product.

The Healthcare business of Thomson Reuters (originally known as Medstat), is the leading provider of content-rich decision support solutions that help organizations across the health industry improve clinical and financial performance. Its continually-updated solutions inform healthcare decisions affecting more than 150 million people in the U.S. These systems are used to mine billions of rows of Medicaid, Medicare, and private sector healthcare claims data in support of customers' program integrity efforts, with a sharp data analytic focus on both cost containment and quality of care.

Thomson Reuters has contracts with all major Federal government healthcare agencies and 26 state Medicaid programs. For its government customers, it provides large data warehouse and decision support solutions with advanced healthcare analytics. The company currently serves state Medicaid programs and CMS with proven, yet customizable systems and services across the entire range of decision support needs – including program integrity, medical policy, quality assurance, budgeting and forecasting, performance measurement, program planning, and benefit modeling.

The map below shows the states where the Medicaid or SCHIP agency uses Thomson Reuters for decision support or related consulting services. In Iowa, Thomson Reuters works with the Department of Elder Affairs – details are provided in the corporate qualifications under Tab 9.



We are proposing the following key system components to meet the IME data analytic needs described in the RFP and by the IME Medicaid Director, Jennifer Vermeer, during the bidders' conference on November 17, 2009, and based on responses to bidders questions.

- **First**, our **base proposal** includes the use of **Thomson Reuters DataProbe®** system. DataProbe is used extensively by State Medicaid programs and CMS to support program integrity and other healthcare analytics for both Medicaid and Medicare. This proven system, which was developed by Thomson Reuters specifically for healthcare claims data analyses, is exceptionally fast, powerful, and flexible. It has been used to identify healthcare quality improvements and cost savings and recovery opportunities involving hundreds of millions of dollars. DataProbe will be used by Thomson Reuters for the IME to:
  - determine provider overpayments and underpayments;
  - identify suspected fraud, abuse, or waste of program services;
  - improve budget forecasting; and
  - identify strategies to assist IME in improving healthcare delivery to Medicaid program members.

- **Second**, as an **optional, additional offering**, we are proposing use of the proven **Medstat Advantage Suite®** system to provide the CMS-certified MARS and SURS functionality as requested by IME. This system would replace the current, antiquated Iowa SURS and MARS mainframe subsystems. In addition, the Advantage Suite system will also provide clinically-rich and easy-to-use decision support capabilities to further strengthen budget forecasting efforts and the identification of strategies to assist IME in improving healthcare delivery to Medicaid program members.

  Advantage Suite was first introduced in 1999 and has been continuously updated and upgraded since then. It is now in production for more than 300 Thomson Reuters

customers, including state Medicaid agencies, large public and private employers, and health plans. The system was first certified by CMS for SURS and MARS purposes for Nevada Medicaid in 2005. It is now being used for SURS in the Medicaid programs of Idaho, Nebraska, Nevada, New Hampshire, and South Carolina, and for MARS in the states of Idaho, Maine, Nebraska, Nevada, and New Hampshire. If this optional, additional proposal is accepted, then Advantage Suite also will be used by Thomson Reuters for the IME to supplement and enhance the capabilities to address the data analytic functions provided by DataProbe. Both DataProbe and Advantage Suite are currently being used by the State Medicaid agencies in Georgia, Missouri, North Dakota, and South Carolina.

Both DataProbe and Advantage Suite are commercial-off-the-shelf (COTS) software and are readily commercially available software used without modification. The software is configured for each customer using standard capabilities, but the software source code is not modified. DataProbe and Advantage Suite are licensed on an annual basis, and updates and upgrades are provided at no additional cost each year as part of the annual license. Detailed information on each product is provided following our response to Section 6.2.2.3.

Both DataProbe and Advantage Suite will be housed in Thomson Reuters' world class Data Center located in Eagan, Minnesota on hardware and a software operating environment provided by Thomson Reuters. The DataProbe and Advantage Suite systems will interface and interoperate with the IME data systems by inputs of data extracts received from IME's existing data warehouse/decision support (DW/DS) system, pursuant to the Department's commitment to supply data to be used for analytic purposes from the DW/DS system. We also plan to provide an interface for providing applicable report output to be posted on the OnBase document management system, including SURS and MARS reports generated by our optional Thomson Reuters Advantage Suite SURS and MARS functionality.

In addition to data analyst time, our proposed solution includes data management staff time from Thomson Reuters to implement the systems' databases and provide monthly updates to the claims databases, monthly updates to inpatient hospital admissions, quarterly updates for episodes using the Medical Episodes Grouper (MEG) and annual updates for the Diagnostic Cost Grouper (DCGs). We will maintain a rolling three (3) years of claims data in each of the systems (DataProbe and Advantage Suite). If the additional, optional Advantage Suite system is selected by IME, then the MEG and DCG components will be operated within Advantage Suite rather than in DataProbe or in both systems.

Both DataProbe and Advantage Suite will be housed in Thomson Reuters' world class Data Center located in Eagan, Minnesota on hardware and a software operating environment provided by Thomson Reuters. The DataProbe and Advantage Suite systems will interface and interoperate with the IME data systems by inputs of data extracts received from IME's existing data warehouse/decision support (DW/DS) system, pursuant to the Department's commitment to supply data to be used for analytic purposes from the DW/DS system. We also plan to provide an interface for providing applicable report output to be posted on the OnBase

document management system, including SURS and MARS reports generated by our optional Thomson Reuters Advantage Suite SURS and MARS functionality.

Our proposed solution includes proven data mining, data analytics, predictive modeling, and post-payment review tools and services that Thomson Reuters currently provides to the healthcare market. Again, these are licensed COTS software products. In addition to interoperating with the IME data systems as described above, our solution will include automated performance reporting to the extent possible as required by Section 6.1.3.1.a.2. The HCE team will utilize a Microsoft Access database for automated performance reporting. All project and task outcomes will be tracked using the database. We will develop a dynamic report in Access with several sections, allowing us to easily report on performance achievements in an automated fashion. The first section of the report will be a "dashboard" of cumulative savings identified in each area (SURS, Data Analytics, MVM, etc.), including a graphic representation of savings relative to goals. Subsequent sections of the report will detail savings in each area by project or specified task, again including goals and progress toward those goals. Savings will be stratified by actual recoveries, dollars avoided, and dollars identified for potential recovery.

We also will provide an interface for report output as appropriate to be posted on the OnBase document management system, including SURS and MARS reports that could be generated by our optional Thomson Reuters Advantage Suite SURS and MARS functionality. We expect that the Thomson Reuters analytic tools will be used by HCE and Thomson Reuters staff but not directly by IME staff or other contractors. However, we do expect that select report output will be posted to OnBase and available there for access by IME and other contractors. We would be happy to provide direct access to these tools by IME staff and/or other contractors, but this would involve additional costs for training, support, and possibly other factors, depending upon the requirements.

6.2.2.1 State Responsibilities

Thomson Reuters will work with the IME to determine appropriate criteria for data access and use, and will define proposed external tools and interfaces for IME approval. We will submit recommendations to the IME for reports, as well as parameters and frequency of these reports.

6.2.2.2 Contractor Responsibilities

a. Provide services, tools, or both that enable the contractor to perform the following functions:

1. **Data mining**
2. **Data analytics**
3. **Predictive modeling**
4. **Automated claim overpayment and underpayment review**

5. **Identification of suspected fraud, abuse or waste**
6. **Dashboard displays of selected data and results of analyses on web pages**

Our subcontractor, Thomson Reuters, will provide us with tools and services to perform the following functions:

- Data mining and data analytics, including automated claim overpayment and underpayment review
- Predictive modeling
- Dashboard displays of selected data and results of analyses on Web pages
- Identification of suspected fraud, abuse, or waste

Our base proposal for data analytics includes the use of Thomson Reuters DataProbe® software and associated tools and services. DataProbe will be housed at the Thomson Reuters Data Center in Eagan, Minnesota. DataProbe is a very fast and flexible data exploration tool ideally suited for fraud and abuse detection. Unlike generic data mining tools, it was developed for the healthcare industry, to analyze and manipulate very large amounts of healthcare claims data very quickly.

Data Mining and Data Analytics

Thomson Reuters has extensive experience using DataProbe for healthcare data mining and data analytics. The software was developed by Thomson Reuters for the specific purpose of investigating and analyzing large and varied amounts of healthcare claims data. The DataProbe system can be implemented in as little as 60-120 days, and claims data can be loaded as frequently as daily. DataProbe is extremely powerful, fast, and flexible and has been used to successfully support state Medicaid agency and CMS efforts to identify suspected fraud, waste, and abuse in the Medicaid and Medicare programs. It also has been used to perform automated claim overpayment and underpayment review for many state Medicaid programs, as well as for Medicare. Users can integrate claims with non-claims data on the fly, without programming support. DataProbe lets the user store query results immediately, so the results of one application step can be used as part of the input to a subsequent step.

DataProbe is an ideal system for ad hoc, iterative data mining, with access to any level of detail data. It allows analysts to quickly identify the most important targets for fraud and abuse investigation and significantly reduces the time to build cases for recovery. DataProbe, coupled with the Thomson Reuters fraud finding algorithms, can show very rapid return on investment (ROI), because of its economical platform (Windows) and because it can be implemented quickly. DataProbe is the ideal software for power users to identify and target suspicious providers and beneficiaries and document immediately actionable cases.

Predictive Modeling

Our base DataProbe proposal includes the use of the Diagnostic Cost Groups (DCG) software for predictive modeling purposes. These functions include predictive models for analyzing Medicaid utilization and trends, including identifying populations and individuals for targeted care interventions and for making other programmatic recommendations to reduce costs and improve quality. The predictive modeling capabilities of the DCG software are described in the product overview information provided following our response to Section 6.2.2.3, and in our response to Section 6.2.4.2 (l).

Dashboard Displays

Our base DataProbe proposal includes dashboard displays of selected data and results of analyses on Web pages. Thomson Reuters has extensive experience providing its customers with customized dashboards and other report presentations of selected data and analytical results; an example of a Thomson Reuters dashboard is provided in Section 6.2.1.2.1 (d), Profiling and Data Mining. These dashboards include executive or management reports designed to monitor key indicators of program performance on a monthly or quarterly basis. They also include fraud detection dashboards to focus the user's attention directly on individual providers or recipients and any suspicious behaviors that are the most immediately actionable. Most of the Thomson Reuters fraud algorithms are designed to rank individuals (providers or recipients) on the basis of the highest number and value of suspect behaviors.

A case study of how one state Medicaid customer successfully used dashboards to track a two-fold increase in managed care enrollment is provided below. By comparing DCG health risk scores across plans, these reports can provide feedback on whether certain MCOs may be "cherry picking" healthier individuals.

TRACKING MANAGED CARE ENROLLMENT MIGRATION	
Situation	To provide the best healthcare value for its members, the South Carolina Department of Health and Human Services (SCDHHS) determined it was in their best interest to shift the predominantly fee-for-service Medicaid population to a coordinated care environment (South Carolina Healthy Connections Choices). SCDHHS determined that beneficiary choice in plan selection would be a key component in achieving the competition between plans to drive quality and service options. SCDHHS needed a simple and easily understood tool that would address the following areas of concern: 1) Monitoring the Healthy Connections Choices enrollment 2) Managing legislative questions surrounding the shift in enrollment 3) Ongoing plan enrollment performance evaluated by region
Action	Thomson Reuters and key SCDHHS program and reporting staff, developed a strategy for addressing the State's reporting needs using two "Dashboards:" ▪ Phase 1 Managed Care Enrollment Dashboard ▪ Phase 2 Plan Performance Dashboard
Result	SCDHHS utilizes the Enrollment Dashboard (Phase I) to monitor how managed care enrollment is trending over time across four regions and statewide. SCDHHS works with their managed care broker to increase focused outreach efforts as needed based on recent trends. Additionally, SCDHHS monitors the selection-bias by evaluating the risk-scores across their plan types (FFS, Managed Care, and PCCM).

Identification of Suspected Fraud, Abuse, or Waste

THOMSON REUTERS PROGRAM INTEGRITY EXPERTISE

With regard to program integrity efforts, Thomson Reuters provides not just the software tools described in the product overviews that follow our response to Section 6.2.2.3, but also skilled fraud data analysts, data managers, consultants, and thought leaders to deliver a highly customized solution. Vast expertise in clinical analysis and the business of healthcare gives Thomson Reuters the ability to produce targets that are not just statistical outliers or data aberrations, but real leads for further investigation to yield significant recoveries.

For example, combined clinical, business, and technical knowledge has enabled Thomson Reuters to discern the differences between:

- Providers who practice outside the norm because they are gaming the system, from those who are employing new evidence-based practice protocols.
- Providers who report high frequencies of only a small number of procedures because they have "poked a hole in the edits," from the providers who have a mix of cases for which those procedures would normally be frequent.

- Providers who have truly suspicious billing patterns, from those who are just unaware of the correct coding procedure, handicapped by faulty billing systems, or focused on revenue maximization within the fine lines of propriety.
- Recipients who are abusing the system, from those who are genuinely ill.

Thomson Reuters staff have the knowledge and understanding of how to use data effectively to define these gray-area distinctions. They have helped their customers recover or save many millions of dollars. The high regard in which Thomson Reuters is held is reflected by the important national program integrity projects for which they have been chosen. A few of these projects are summarized below; additional information is included in our response to Section 7.2.9.2.

- **Medicaid ONE PI Subcontractor.** In late 2006, CMS chose the team on which Thomson Reuters serves to implement the One Program Integrity (ONE PI) project, CMS' major new national Medicaid fraud detection initiative. In this project, a large integrated data repository will be built with data from at least 10 state Medicaid agencies. Thomson Reuters' role on this project is to provide the advanced PI analytic tools that will be used to access the data repository through a Web portal.

- **Part D MEDIC Program Integrity.** Thomson Reuters is the data analysis subcontractor on one of four national Part D Medicare Drug Integrity Contractor (MEDIC) teams, to assist CMS in overseeing the Medicare Part D prescription drug program.

- **Medicare Program Safeguard Contract.** For the past six years, Thomson Reuters has served as the fraud detection software and data analysis subcontractor to a Medicare Program Safeguard Contractor.

- **Medicaid Fraud Detection.** Thomson Reuters provides software and analytic services to help 20 state Medicaid agencies improve their fraud, waste, abuse, and overpayment detection and investigative capabilities.

- **Medicaid SURS Solutions.** Thomson Reuters provides the SURS solution for 15 state Medicaid programs. The Thomson Reuters SURS system has been certified by CMS on multiple occasions.

THE POWER OF DATAPROBE

As described in the product overview that follows our response to Section 6.2.2.3, DataProbe is a highly proven fraud system that has been successfully used to identify many millions of dollars for recovery, as well as preventing future overpayments. Below we describe some of the features that make DataProbe valuable for fraud and abuse detection.

Views and Study Group Views

Study Group View facilitates quick creation of cohort data sets and provides a framework for analyzing patterns relative to the process of care and costs of treatment over time – an episode-on-the-fly. DataProbe accomplishes these linkages with a small fraction of the manual and computing effort required by a statistical package or SQL-based query systems. In addition to episodes-on-the-fly, we are including pre-defined Episodes of Care identified using the Medical Episode Grouper (MEG), a proprietary grouping methodology that Thomson Reuters created. MEG (described in greater detail in the overview information provided following our response to Section 6.2.2.3), is a rigorous, clinically rich episode construction methodology that incorporates inpatient, outpatient, and drug experience into clinically relevant episodes of care. Analysts can use the episode group as the unit of analysis when performing comprehensive profiling of physicians and other providers.

Link in External Data

DataProbe enables users to add in external datasets on the fly, without specialized programming assistance. No predefined format is required, and once the user imports data, he or she can combine, manipulate, and aggregate the data as desired. Our customers often import data such as birth and death records and sanctioned provider lists. The ability to add additional "hot list" data sources further extends the program integrity algorithms and provides quality supplemental information for algorithm results validation and investigation.

Scripts

The Scripts feature is a type of macro that helps the user automate any step of the query process, by logging his or her query development steps and then changing and re-running any part of the query. Thomson Reuters delivers fraud finding algorithms as parameterized, portable scripts, stored as text files; the user need not be a programmer or statistician to understand the algorithms. Users can develop their own algorithms the same way. Running a script automatically preserves an audit trail of the fraud detection methodology used, showing exactly what was run, and when, which can be used as evidence for prosecution.

ALGORITHM LIBRARY

Underlying Thomson Reuters' fraud analytic services is its proven **Payment Integrity Algorithm Library**, a vast store of knowledge acquired over the past decade from the hundreds of rules-based algorithms developed for its customers, which have proven successful in financial recoveries. The Algorithm Library has hundreds of algorithms that detect provider fraud, recipient fraud, collusion between providers and recipients, and claim system

deficiencies. Thomson Reuters works with each customer to choose the algorithms they wish to pursue, and then ensures that the algorithms work correctly with their data and business rules, because not all algorithms will be appropriate for all customers.

The Thomson Reuters Program Integrity Practice Leadership Team updates the library on a quarterly basis to keep up with newly emerging schemes. They will review specific state policy and claims edits and define rules-based algorithms that will address issues unique to the state.

As part of its government-focused Expert Series webinars, which its Practice Leadership team has been providing for six years, Thomson Reuters on December 16, 2009 presented the topic of "Key Algorithms for Fighting Fraud." This particular webinar was attended by more than 100 individuals from 23 states and federal partners. It is the third year that Thomson Reuters has offered "Key Algorithms" as part of its Expert Series presentations. It is representative of the thought leadership that Thomson Reuters provides to government agencies in the field of healthcare information analytics.

The following list represents just a few examples of the most effective algorithms that Thomson Reuters has delivered to state Medicaid customers in the recent past:

Confidential Information – Not to Be Released to Third Parties

Thomson Reuters provides a list of algorithms successfully used to identify fraud, waste, and abuse.

End of Confidential Information

One Thomson Reuters customer focused mainly on enrollee fraud – the Office of the Inspector General (OIG) for the Tennessee Department of Finance and Administration, which oversees the Tennessee Medicaid program, TennCare. Since its formation in 2004, the OIG has identified, investigated, and prosecuted TennCare recipients who commit fraud against the program. Most notably, TennCare has made an aggressive effort to pursue enrollees who have committed fraud in the pharmaceutical arena, with many cases resulting in incarceration. Thomson Reuters assisted the OIG in developing 50+ fraud algorithms for recipient and provider fraud, with more in development. Innovative beneficiary-focused algorithms included the following list.

Confidential Information – Not to Be Released to Third Parties

Thomson Reuters provides information on their innovative beneficiary-focused fraud algorithms.

End of Confidential Information

Algorithms for Managed Care

Most systems in the marketplace are designed for fee-for-service fraud detection. Fraud detection in managed care is a specialized skill and is supported by Thomson Reuters systems. Thomson Reuters has exceptionally strong capabilities in the field of managed care fraud

detection. The Thomson Reuters algorithm library contains many algorithms that are useful for detecting managed care program integrity abuses by providers, recipients, and managed care providers. These algorithms address the following problems, among others:

Confidential Information – Not to Be Released to Third Parties

Thomson Reuters describes some of their algorithms that are successfully used to detect managed care program integrity abuses by providers, recipients, and managed care providers.

End of Confidential Information

Thomson Reuters has systems and algorithms that can detect many types of suspicious recipient behavior in managed care, as well as in fee-for-service. A few examples are presented below:

Confidential Information – Not to Be Released to Third Parties

Thomson Reuters describes some of their algorithms that are successfully used to detect managed care program integrity abuses by providers, recipients, and managed care providers.

End of Confidential Information

The Thomson Reuters algorithms are flexible, and new ones can be developed whenever desired. Their systems can easily compare utilization rates between FFS and managed care to discern problems as they emerge. Their systems can accommodate the design of algorithms and reports that IME feels are necessary to monitor and model recipient behaviors, regardless of service delivery mode.

b. Provide actionable data and recommendations on opportunities for improving IME objectives.

Thomson Reuters has nearly 30 years of experience in providing actionable data and recommendations for improving healthcare programs. Their experience includes extensive work supporting Medicaid agencies directly, as well as through projects funded by CMS and other federal agencies. In this work, Thomson Reuters staff isolate actionable information; present it in concise, compelling ways; and draw implications and recommendations for policy analysis and activities.

For example, in presenting the results of fraud algorithm analysis, Thomson Reuters prepares a deliverable that includes:

- Purpose of the algorithm, including the potential fraud and/or abuse associated with the algorithm
- Summary of the functional specifications

- Key Findings. Depending on the algorithm, the key findings will identify a mix of aberrant providers, services, and benefits. The findings may isolate a particular geographic area where the potential fraudulent and/or abusive behavior is most prevalent
- Recommended actions. Potential edits, areas for prepay review, and policy changes will be identified. It is not uncommon for a fraud or abuse scheme to be so prevalent in a state that changes in the MMIS edits will stop the payments. This is further enhanced from targeted provider review prior to payment and changes to the policy. Where requested, Thomson Reuters will provide base practices based on the experience of other payers, government and provider alike.
- High-level summary results along with claim level detail results. Where appropriate, a geographic analysis of the results, or a dashboard display of the results, with exception highlighting to identify the most aberrant cases (see example provided in our response to Section 6.2.1.2.1 d).

The case studies below illustrate the depth of Thomson Reuters' expertise in evaluating and making recommendations to improve Medicaid program integrity efforts.

Program Integrity Assessment

In 2005, Thomson Reuters was retained by the Massachusetts Executive Office of Health and Human Services (EOHHS) ("MassHealth") to conduct an assessment of MassHealth's program integrity program as part of a state budget reporting requirement. The assessment included five components:

1. A Program Integrity Capabilities Assessment Report, which documented the current MassHealth program integrity organization, functions and activities, based on structured interviews and review of documentation with EOHHS/MassHealth executives and MassHealth program managers and staff;

2. A compilation of Program Integrity Best Practices, drawn from the interviews with EOHHS and MassHealth staff, Thomson Reuters Healthcare's national program integrity experience with public and private sector organizations, research and interviews with other state Medicaid programs, and publicly available information;

3. A Gap Analysis Report, which identified areas ("Gaps") where EOHHS/MassHealth might focus efforts to improve the effectiveness and/or efficiency of program integrity operations, and bring them closer in line with industry standards or best practices;

4. A Return-On-Investment or ROI Analysis that provided more quantitative assessment of the highest priority Gap opportunities, to assist EOHHS and MassHealth in evaluating the costs and benefits of adopting various risk mitigation or quality improvement strategies;

5. A Final Report that integrated information from four interim deliverables submitted to EOHHS/MassHealth during the course of the project.

In addition to incorporating findings and recommendations previously shared with EOHHS through earlier deliverables, the final report synthesized the information to present overall conclusions and a prioritized short list of recommended action items. EOHHS has since acted on a number of these recommendations, with positive results.

Medicaid Fraud, Abuse, and Duplication Risk Review

In 2000, the Missouri Department of Medical Services (DMS) asked Thomson Reuters to conduct a Medicaid fraud, abuse, and duplication risk review. Thomson Reuters' duties included:

- The evaluation and validation of MMIS edits and audits pertaining to preventative and post-payment fraud control mechanisms and procedures, for fee-for-service, managed care, and new programs.
- The identification of aberrant patterns of billing and potential problem areas to determine the scope of the problems of fraud, abuse, and duplicate payment.
- The estimation of the potential recovery, by Medicaid provider type/specialty and by Medicaid eligibility group.
- An evaluation of the potential effort required to produce the estimated recovery amounts.
- The development of recommendations for solutions, including a comprehensive description of the application and operation of a fraud detection system and associated services.

Thomson Reuters performed these duties by conducting two major studies:

1. An operational review to assess existing Medicaid procedures and operations, including the SUR Unit and the Medicaid Fraud Control Unit. Thomson Reuters examined organizational structure including responsibilities and processes, staffing levels, intra- and inter-organization communications, past anti-fraud activities and results, claims payment system edit and audit practices, post-payment analytic and investigative system practices, managed care program oversight.
2. An exploratory data analysis of Missouri Medicaid administrative data (fee-for-service claims and managed care encounter records).

The Thomson Reuters studies concluded that Missouri Medicaid program had conducted reasonably effective efforts to detect and counteract potential fraud and abuse, and that there was no indication that Missouri was significantly better or worse than its peers in preventing these problems. They also concluded that the State has the technical and institutional capacity to improve its performance rapidly. Recommendations for improvement covered the following areas:

- Increased recovery efforts
- Claims processing improvements, such as additional edits and audits
- SURS functional improvements
- Managed care oversight improvements
- Integration of statistical analysis into the fraud detection process

Thomson Reuters provided the State with specific estimates of the amount of money that could be saved short-term through these recommendations. These estimates translated to a payoff rate of $11 for every dollar spent.

Targeting Budget Reductions

Due to the recent weakening economy and state revenue shortfalls, South Carolina Department of Health and Human Services (SC DHHS) implemented various Medicaid program modifications to address budget reductions. SC DHHS needed to target areas that were data-driven and would achieve their reduction mandates quickly, so they turned to their Thomson Reuters Decision Support System to:

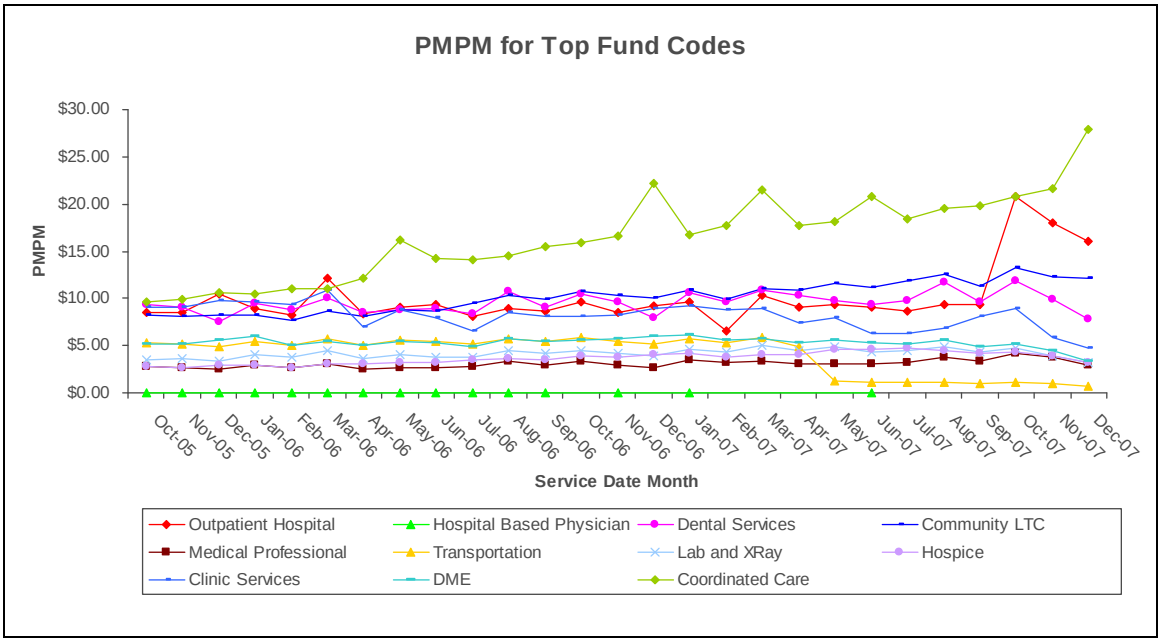
1. Identify focus areas that were driving overall cost increases
2. Explore legislative and stakeholder requests for program area reductions/preservation

Thomson Reuters and key SC DHHS program and reporting staff developed a strategy for examining recent cost growth factors addressing the State's reporting needs:

- Growth patterns and differences when using dates of payments and/or service
- Completion factor trends and impact on claims run-out for managed care transition
- LIM enrollment comparison to unemployment rate growth
- Overall cost and use by major funding sources
- Overall cost and use by eligibility categories
- Seasonal ER, Office Visit and DME cost and use trends
- Focused studies on mental health and low birth weight babies

SC DHHS utilized the analysis to identify high-cost growth areas amenable to budget reduction and proposed reductions and supported these proposals with data-based results.

Graph 1—PMPM for Top Fund Codes



Other Areas of Expertise

In addition to Program Integrity, Thomson Reuters also has extensive experience providing actionable data and recommendations to Medicaid agencies in areas such as:

- Budget development and monitoring (see example in Section 6.2.2.2 c)
- Managed care encounter data validation and improvement
- Long term care policy planning (see description of Long term Care Data Chartbook in Section 6.2.4.2 g)
- Quality measurement and improvement
- Disease and care management opportunity assessment, case identification, and program evaluation
- Provider feedback and pay for performance programs
- Integration of Medicaid and Mental Health data

c. Assist the Department in performing budget forecasting.

The HCE team will assist the Department in performing budget forecasting. Through the use of the Thomson Reuters data analytic tools, we will suggest parameters and provide reports identifying service utilization and payment trends to facilitate budget forecasting. The Thomson Reuters analytic staff will provide expertise in designing, preparing, and interpreting analysis that supports budget development and monitoring.

Thomson Reuters has worked with a variety of state Medicaid agencies to identify budget drivers and to help understand budget trends in order to identify opportunities to control and predict costs One example, for South Carolina Medicaid, is provided above in our response to Section 6.2.2.2 (b). Another example is the annual Cost Drivers analysis for Georgia Medicaid. This project began in 2001, when Georgia sought a solution to the urgent need for Medicaid cost control. State revenues were beginning to slow due to the economic downturn, while Medicaid costs continued to rise. The Governor's Office of Planning and Budget, in partnership with the Department of Community Health (which administers the Georgia Medicaid program), worked with Thomson Reuters (at that time known as Medstat) to identify factors driving Medicaid cost increases. The findings showed that, despite Medicaid growth in line with benchmarks, Georgia had opportunities to focus efforts in several areas, including pharmaceutical prescribing and acquisition, forecasting growth and budget impact, and program policy evaluation by Category of Service. Thomson Reuters' analysis resulted in a number of specific tactical recommendations impacting costs and well-supported by the data.

> **"Medstat's (now Thomson Reuters) analysis focused DCH on important additional points for ongoing internal evaluation and improvement efforts, and provided insight to critical issues in the Medicaid budget process."**
>
> *- Chief of Planning and Fiscal Policy, Georgia Department of Community Health*

Thomson Reuters continues to update this "Cost Drivers" study annually to help the Georgia Department of Community Health track its performance against benchmarks, identify cost management opportunities, and prepare annual program budgets that are well-supported by the data and therefore win the support of the Governor and the Legislature.

In supporting IME under our base DataProbe proposal, the following solution components will be key to our assisting the Department with budget forecasting:

- A database structure that includes critical financial reporting requirements, such as appropriate handling of financial adjustments.
- High-quality, analytically useful data that balance to the source system.
- Flexible trend reporting by state-customized dimensions (aid category, category of service, etc.) and by all relevant measures (e.g., total expenditures, expenditures per eligible, expenditures per patient, expenditures per member per month, etc.).
- Ability to compare actual claim expenditures (as well as other expenditures, such as capitation amounts, if applicable) to projected or budgeted amounts (if available).
- Support for rapid, iterative follow up analysis of emerging trends to identify and understand the drivers behind those trends.
- Ability to create claims triangles to calculate claims lag and develop Incurred but Not Reported (IBNR) claims completion factors.
- Incorporation of relative health risk scores using the DCG models to evaluate or predict population health overall, or for population subgroups.

- Easy export to Excel, where regression techniques can be applied to trend data for development of budget projections.

Thomson Reuters' optional offering of Advantage Suite for MARS/SURS reporting provides additional advanced capabilities to enhance budget analysis. Advantage integrates a full range of MARS reports, customized to meet IME needs. Unlike many legacy systems, these MARS reports are dynamic. Users can easily add or modify reports as analytic needs change. For purposes of budget development, Advantage Suite has all of the above benefits that DataProbe offers, plus the following:

- Extensive periodicity options for trend reports, so that users can easily specify the required time period (e.g., month, quarter, calendar year, fiscal year, etc.), including use of relative time periods (Current Month to Previous Month).
- More than 300 pre-calculated, customizable financial measures are available.
- State-specific, private sector norms are available as benchmarks, adjusted to your case mix.
- National Medicaid cost/use norms are available online, adjusted to your case mix.
- IBNR completion factors can be automatically generated to report on incurred cost in the near term.
- Automatic adjustment of comparisons over time or by health plan for members' health risk.
- Users can change from incurred-date to paid-date reporting at the click of a button.
- Exception reporting and other formatting options allow users to quickly identify the most important information on a report. Exceptions can highlight good, bad, and emerging trends.
- Alerts and Agents can be used to get timely information to the right people. There are many reports being run, but Alerts allow the analyst to send certain reports to other staff by e-mail when specific criteria have been met. For example, the staff pharmacist can automatically receive a detailed drug report whenever spending for one or more of the direct-to-consumer advertising drugs increases by at least two (2) percent in one month.

With the above DataProbe capabilities and, optionally, Advantage Suite capabilities, Thomson Reuters analysts can assist the Department with such aspects of budget forecasting as creating trends of recent enrollment, utilization, and price; projecting future trends; estimating outstanding IBNR liabilities; risk adjusting differences among health plans or programs based on enrollees' relative health risks; and tracking YTD budget variances and their impact on the full fiscal year.

d. If proposing an external tool, provide a scalable solution that will support multiple health insurance related products and multiple types of users.

Both DataProbe and Advantage Suite are highly scalable in terms of platform, data capacity, number and types of users, and the size of the database. Both of these data analytic tools can

support enterprise wide data analytics and multiple types of users. These systems are used to manage many Terabytes of claims and other healthcare data for a variety of Thomson Reuters customers. In addition to Thomson Reuters extensive internal use of DataProbe as a healthcare data investigation and analytical tool, more than 20 healthcare organizations use DataProbe for data analysis. Advantage Suite is used by almost 200 large-scale customers, including state Medicaid agencies, public and private employers, and health plans. For a given customer, data from multiple health plans or programs are integrated within the database, with the data standardized as appropriate to allow apples-to-apples comparisons.

These solutions are both mature systems that Thomson Reuters maintains via new releases on an annual basis to keep current with new operating platforms, new healthcare codes, and other content. Advantage Suite is updated with new groupers (such as MS-DRGs) and other clinical content (such as best practice benchmarks), based on the medical literature and other inputs such as the evolution of new measures of healthcare quality and efficiency.

Table 1 summarizes selected attributes of these systems, at a high level.

Table 1—Summary of DataProbe and Advantage Suite

Features	DataProbe	Advantage Suite
General Description	**Fast, Flexible Tool for Fraud Data Mining** The ideal fraud system for mature PI programs that need very fast, flexible, and advanced data mining with the ability to import and manipulate data on the fly	**A Medical Model for SURS with Decision Support and MARS** The ideal SURS for customers who want one fully-integrated, ODBC-compliant, certified system and a unified GUI and database for multiple, clinically-rich, enterprise applications plus MARS
Target Users	Power users Full-time analysts	Managers Full-time analysts
Proven in Medicaid	Yes	Yes
Analytic Flexibility	Very High	High
Data Flexibility	Very High	High
Peer Groups	Flexible ad-hoc groupings	Standard groupings, flexibility
Ad Hoc Reporting	Yes	Yes
Data Enhancements for Analytic Power	Medium level of clinical enhancements (severity, episodes, study groups)	Highest level of clinical enhancements; delivers a 'medical model' for PI
Random Sampling	Export to RatStats or SAS	Export to RatStats or SAS
Database & Technical Platforms	Windows Server Web-based Column-oriented specialized database	Unix / Windows Web-based Oracle, Teradata ODBC compliant
Implementation	Usually 2-4 months	Usually 4-10 months

Features	DataProbe	Advantage Suite
Timeframe		
Commonly Deployed As	Fraud Detection	DSS with MARS & SURS

e. Provide at least one on-site data analyst solely dedicated to providing the Department with extensive standard and ad-hoc reporting and interpretation to meet IME and CMS requirements.

HCE and Thomson Reuters will provide the Department with substantial data analysis expertise. This will include two on-site analysts, plus additional off-site Thomson Reuters analytical expertise. The first on-site data analyst will be Paul Bryan, who currently provides IME with SURS data analysis. As described in Section 7.2.8.2, a second on-site data analyst, provided by Thomson Reuters, will in response to this section (e), be solely dedicated to providing the Department with extensive standard and ad-hoc reporting and interpretation to meet IME and CMS requirements. The on-site position will be filled by Thomson Reuters, whose Healthcare segment employs approximately 2,000 professionals with backgrounds and credentials not only in healthcare technology and data warehousing, but also in Medicaid policy and operations, healthcare data analysis, program integrity, managed care, health plan administration, employee benefit design, medicine, epidemiology, and quantitative analysis, among other fields.

Thomson Reuters currently works with 26 state Medicaid agencies, and its staff is skilled in the nuances of Medicaid data and programs. Thomson Reuters has very successful experience recruiting and training highly qualified analysts to work on-site with state Medicaid clients, and currently provides on-site support to Medicaid clients that include the South Carolina Department of Health and Human Services; the Kentucky Office of the Inspector General; the Kansas Health Policy Authority; MaineCare; and the Idaho Department of Health and Human Welfare.

Based on Thomson's experience with other state Medicaid clients and understanding of the IME goals, the vision for the on-site analyst role is to serve as an extension of the IME team. The analyst provides an effective interface between our organizations, bringing all of Thomson's expertise to bear on IME program integrity issues and opportunities.

In Section 7.2.8.2 sample resumes are included that demonstrate the qualifications of Thomson Reuters' on-site staff in other states. They will recruit and fill the position in Des Moines, based on job skills and qualifications that meet their employment standards and with the Department's input and approval on the final candidate. Thomson Reuters' ideal candidate will have a Masters in Public Health or similar advanced degree, 3-5 years work experience in the healthcare industry, including healthcare claims data analysis, and experience in applying health analysis methods and measures utilizing basic statistical methods.

f. If proposing an external tool, include an interface to exchange data with the IME's DW/DS system in accordance with IME and CMS requirements.

The Thomson Reuters DataProbe and Advantage Suite systems will include an interface to accept data from the IME's DW/DS system in accordance with IME and CMS requirements. The Thomson Reuters systems will receive and load data extracted from the DW/DS system and provided to the Thomson Reuters data center in Eagan, MN.

Thomson Reuters prefers to receive data in ASCII flat files (no packed fields) and electronically via one of the following methods:

- Standard FTP with PGP encryption – push and pull
- Standard FTP over VPN – pull only
- Secure FTP (SFTP) – pull only
- HTTPS – pull only: this method is only available to suppliers using Tumbleweed server software.

Thomson Reuters takes a high degree of care in the development of analytic databases. Described below are a few of the special data quality techniques that they employ.

- **Claims balancing.** Thomson Reuters ensures that the database balances to the penny with the extract file from the MMIS. Thomson Reuters tests the source data carefully to discern any problems with the source file such as missing fields, time periods, and inconsistencies.

- **Claims adjustments.** Claim adjustment records are carefully linked to the original claim so that net payment is accurate and can be trusted. All of the claim adjustments are maintained on line and can be examined for trends and irregularities. Thomson Reuters carefully analyzes the claims adjustment methodology being used and adjusts its database load and query design processes accordingly.

- **Data assessment.** Incomplete data frustrate the data analysis and program integrity functions. Thomson Reuters takes great care to test the completeness of the data as it comes from the data supplier. For example, Thomson Reuters makes sure that the fields are highly valued, i.e., that there are valid values in all the key fields. This is done in part by running edit reports that list the minimum and maximum values found in each field in every input file, and also by listing the fields that have unacceptable levels of missing fields.

g. Maintain full compliance with all HIPAA security and privacy provisions.

As described further in our response to Section 6.1.6, Thomson Reuters maintains strict adherence to the privacy and security requirements of HIPAA. Thomson Reuters has well-documented processes that are SAS-70 Type II certified. These processes protect the confidentiality of our customers' data and protected health information.

Thomson Reuters uses standard encryption methodologies when receiving or sending data. The company handles the data carefully to ensure that it is protected from unauthorized disclosure, and every employee is trained and certified at least annually on our data protection procedures. The Thomson Reuters Data Center in Eagan, MN is audited on a regular basis and has high levels of physical security, in terms of both external and internal access. For example, its healthcare servers are internally protected within caged environments and all physical access is logged. Thomson Reuters use a variety of tools to monitor our servers, databases, network, and environment.

Application system access is controlled through multi-layer security protections; users must successfully pass through two-to-three security screens in order to access the tools that report on PHI-level data in the database.

h. If using Department-approved external tools, provide the capability to use the new tools as fully functional, CMS-certifiable replacements that are proven to meet all federal requirements for the SUR and MAR functional areas.

As an optional, additional solution, Thomson Reuters will provide its Medstat Advantage Suite® system to address the SUR and MAR replacement needs. Advantage Suite is a fully functional, comprehensive healthcare decision support system that has been federally-certified to meet all federal requirements for SURS and MARS functional areas.

Advantage Suite allows users to employ a 'medical model' to refine targets for investigation; users can view the clinical characteristics of provider and recipient utilization and eliminate false positives – outliers with valid medical reasons for their billing patterns. Advantage Suite embeds and automates advanced healthcare analytic methodologies such as clinically-relevant episodes of care, risk adjustment, and national clinical benchmarks, the deep background information that comes from a highly-enriched data model and relational data structure. It includes a Personal Health Record (PHR).

Advantage Suite is an excellent system for state agencies that have a current need for a MARS/SURS solution and wish to invest in a tool that can serve other purposes as well, such as medical review, quality assessment, care management, waiver program evaluation, and financial reporting. Advantage Suite brings the benefit of a single, fully-integrated database to support SURS, MARS, and enterprise decision support.

Advantage Suite is currently used for MAR by the Medicaid programs for the States of Idaho, Maine, Nebraska, Nevada, and New Hampshire. It is being used for SURS in the Medicaid programs of Idaho, Nebraska, Nevada, New Hampshire, and South Carolina.

j. Compile and analyze billing and payment data from processed and paid claims and develop predictive models for billings and payments for up to 24 months in the future.

The HCE team will use the Thomson Reuters DataProbe system and other tools to compile and analyze billing and payment data from processed and paid claims. From this analysis, and as part of our efforts to support improved budget forecasting, we will develop predictive models for billings and payments for up to 24 months in the future.

Thomson Reuters brings to this a broad range of relevant modeling experience for private and public sector clients. For example, Thomson Reuters:

- Sets budgets, employee contributions, and COBRA rates for a number of its large employer clients.
- Produces national spending estimates for mental health/substance abuse under a contract to the Substance Abuse and Mental Health Services Administration.
- Assists the Rhode Island Department of Human Services (as a subcontractor to EDS) by developing two types of predictive models. The first type of model is person based and predicts person specific outcomes to help the State identify potentially high-cost cases. The second type of model is population based and is designed to support statewide estimates of long term care needs and state-financed spending to assist the state with the budgeting process.
- Has provided the Georgia Department of Community Health with budget forecasting models that project the costs of various Category of Service and Eligibility Aid Category groupings, including the estimated impact of changes in trends for claims costs per service, utilization rates, and Medicaid enrollment.

The HCE team will begin this project by meeting with IME staff to understand current billing and payment analysis and financial processes and confirm the requirements for your predictive models. Tailored to IME's unique requirements, Thomson Reuters will use DataProbe to develop billing and payment trends for major categories of service or aid categories and use basic underwriting or statistical (e.g., linear regression) techniques to forecast out 24 months.

Thomson Reuters' predictive modeling will include projected health risk using the DCG predictive modeling software being deployed with the DataProbe system. The DCG models are described in greater detail in the overview information provided following our response to Section 6.2.2.3, and in our response to Section 6.2.4.2 (l). Based on DCGs, a risk score will be created for each member and this risk score can be aggregated to the group level for projection and/or rating purposes. For the purpose of predictive modeling, applicable database fields are:

- Relative Risk Score (RRS): For each member that is selected for the model, a RRS will be calculated for the concurrent (Year 1) and prospective (Year 2) years. These fields will be as follows:
  - RRSYear1: Concurrent year
  - RRSEYear2: Explanatory model, prospective year
  - RRSPYear2: Payment model, prospective year

- Predicted Cost Year 2: In addition, there will be a dollar field that uses the RRS and the Year 1 costs of a patient and calculates a Year 2 predicted cost.

These fields are assigned on a member/patient specific basis and can be aggregated at the group level. Assigning the risk scores and other information at the patient level allows for greater flexibility in using this information. For instance, this information would serve as the foundation for generating expected costs for many different groupings of members, both demographic and clinical.

The DataProbe database used for modeling will contain member specific demographic and eligibility information beyond the age, gender, and clinical information used for the DCG risk scores. This additional information can provide group and member-specific information to improve the predictive models, such as geographic region, health program or plan, capitated rating group (if applicable), enrollment start date, etc.

Thomson Reuters will calculate claims lag factors, by various categories of service, as needed to support the models. These factors are then used to complete financial statistics to account for claims incurred but not reported (IBNR). This important analytic method enables users to make valid comparisons between time periods when reporting on an incurred basis. Thomson Reuters supports the use of different completion factors for different types of service (e.g. facility, professional, pharmacy), as well as by capitation status and other customer-specified attributes. Data in more recent analytic periods is completed by a number of different factors generated through analysis of historic trends.

The optional Advantage Suite MARS/SURS system calculates claims lag factors automatically, during the database build. Advantage Suite's standard report templates include IBNR actuarial triangle reports that show payments by paid month and service month. Advantage Suite also includes a large array of measures automatically "completed" for IBNR, which speeds the analytic process.

The predictive models can be constructed to accommodate anticipated changes in claims costs per service, utilization rates, and Medicaid enrollment. During this period of constrained Medicaid budgets, many states are adjusting provider reimbursement rates. A case study from one state for which Thomson Reuters developed models focused specifically on projecting the impact of fee schedule changes by provider specialty is summarized in **Table 2**.

Table 2—Impact of Fee Schedule Changes
By Provider Specialty

Modeling Rate Changes	
Situation	Due to the impact to the provider community when rates are adjusted, South Carolina Department of Health and Human Services (SC DHHS) was interested in better understanding the impact prior to releasing rate adjustment information. SCDHHS needed to evaluate provider specialty groups that would be impacted the most when rates were adjusted.
Action	Thomson Reuters and key SCDHHS program and reporting staff developed an approach for examining current rate information as well as various scenarios for various provider specialty groups.
Result	SCDHHS utilized the analysis to identify the impact of rate adjustments across various provider groups. This data-driven process assisted the state in making more informed rate adjustment decisions

Provider Groups	Allowed Amount	Paid Amount	Allowed Under Current Fee Schedule	Allowed Under Proposed Fee Schedule	Difference Allowed Amount and Current Fee Schedule	Percent Difference Allowed and Current Fee Schedule	Estimated Proposed Change	Percent Change
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Totals	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

k. Review three years of historical claims data and identify payment errors.

We will review three years of historical claims data to identify payment errors. Thomson Reuters staff will design, develop, and maintain the analytic database that supports their data analytic work for the IME. Thomson Reuters will build the initial database with three years of historical claims data. The database will be updated on a monthly basis using an electronic data feed from the existing DW/DS system.

Under our base proposal, Thomson Reuters will use DataProbe to build the database, mine the data, design fraud detection algorithms, and produce targets for investigation. The extensive

library of proven Thomson Reuters algorithms will help jump-start the process of identifying payment errors.

6.2.2.3 Performance Standards

At a minimum, we will deliver a return on investment equal to 125 percent of the implementation cost and 200 percent of the operations costs of our proposed data analytics tools and services over the base and option years of the contract.

Thomson Reuters Product Overviews

DATAPROBE

The Thomson Reuters DataProbe system was designed to flexibly and quickly execute multi-step investigations of high volumes of healthcare claims data. No other system comes close to providing skilled healthcare data analysts with the speed, power, and flexibility offered by DataProbe. It is described in detail in the Product Overview below.

Confidential Information – Not to Be Released to Third Parties

Thomson Reuters provides an extensive description of our products and their capabilities—DataProbe, DCG, MEG, and Advantage Suite.

Confidential Information Ends Here

6.2.3 Medical Necessity Reviews

HCE, with data analysis assistance from its subcontractor, Thomson Reuters, will conduct post-payment medical assistance reviews. The Thomson Reuters data analytic tools and expertise will be used to help target service areas that merit careful reviews. Instead of conducting reviews based on pure random samples of providers or statistical rankings of raw claims data, we will achieve more precise and effective targeting of review efforts by using data analytics based upon sophisticated clinical classification classifications and episodes groupings. In this way we will be able to use our resources more efficiently and focus on high dollar and high impact areas.

We will work closely with IME staff to identify select services and procedures for initial data analysis. We will focus on services and procedures that we know from experience and logic to be potentially suspicious with regard to medical necessity (e.g., MRIs, CAT scans, DME generally, home health, oxygen supplies, stents, bypass surgery). We will pay particular attention to suspicious services and procedures that involve high dollar amounts.

We will use the Thomson Reuters DataProbe system and the Medical Episodes Grouper (MEG) to determine how often certain services or procedures occur for various medical

episodes. In other words, on an episode adjusted basis we will calculate the extent to which certain services are being rendered. Then, by episode type and by severity stage within episode, we will ascertain which providers have a higher than usual number of services and determine whether those providers should be reviewed. As part of this episodic analysis of services and procedures, we will also consider the impact and appropriateness of service utilization based upon the total constellation of disease conditions affecting individual patients. This will be done by using the DCG grouper to calculate and apply the overall risk scores of individual patients. This information will be taken into account in the process of determining target areas and providers for review.

Again, we will be using a much more sophisticated and clinically-based approach to determine appropriate targets for review. This will be a much more effective approach than simply drawing a purely random sample of claims or providers. It will also be much more effective than the traditional SURS profiles and utilization reviews. An illustration of patient population complexity and the need for a more sophisticated and clinically based approach to the review of medical services is provided by the example below. This example involves two different coronary artery disease patients that have significantly different levels of comorbidities and required medical services, even though they have the same basic episodic condition. Our proposed analytic capabilities with DataProbe, MEG, and DCGs will provide the analytic power to support effective medical necessity review targeting and to provide clinically-based documentation supporting efficient and effective medical necessity reviews.

Comparing Patients

Patient A

Progressive Angina
2008 Costs ~ $15,323

62 year old, Male

Comorbidities
- Congestive Heart Failure
- Type 1 Diabetes
- Vascular disease
- Renal failure

Relative Risk Index = 29.62

Patient B

Progressive Angina
2008 Costs ~ $5,576

58 year old, Female

Comorbidities
- Hypertension, minimal

Relative Risk Index = 2.54

Patients with the same severity level within an episode can have significant cost variance….

...due to different comorbidity profiles.

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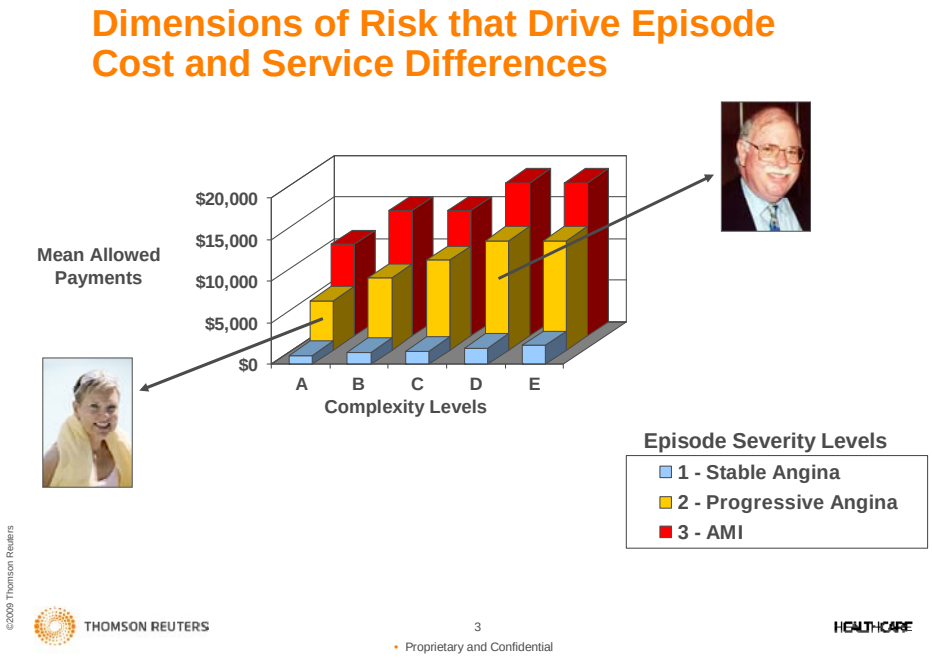

Thus, effectively evaluating the appropriateness of a level of services and costs requires sophisticated data analytic capability that can develop and analyze more complex profiles than can be done with the traditional SURS tools.

6.2.3.1 State Responsibilities

HCE will continue a collaborative relationship with the Program Integrity Director to identify appropriate criteria for post-payment medical necessity review, as well as identifying appropriate medical policy applicable to these review. The Operations Manager, Medical Necessity and Medicaid Value Management, will meet with the Program Integrity Director on a regular basis to discuss potential review activities, areas of potential risk, and any other associated issues.

6.2.3.2 Contractor Responsibilities

a. Provide management with information to assist in overall program direction and supervision.

HCE and Thomson Reuters will compile a quarterly report of results of medical necessity reviews. This report will include recommendations from pattern analysis and trending of the review results, including recommendations for future claims edits, additional lock-ins, or provider education.

b. Have written procedures for all post-payment medical necessity review activities, including review criteria for all member populations and provider types.

During the pre-operations phase, HCE will work with the IME to develop appropriate procedures for identifying and processing medical necessity reviews. HCE currently is licensed to use McKesson utilization review criteria at no fee to the IME and will propose continuing to use these criteria for the medical necessity reviews.

c. Meet periodically with the Department staff to discuss data reviewed and determine action to be taken.

We have established meetings with the IME Program Integrity Director on a bi-weekly basis. This meeting will provide an initial venue for discussion of concerns or issues that may need to be addressed. Beyond this meeting, we will establish a regular meeting with other IME contractors, such as medical services, member services, and provider services, to discuss findings and possible solutions, as appropriate.

d. Refer providers requiring sanctions to be imposed against them to the Department in accordance with current Iowa Administrative Code rules on sanctions.

During the course of a review, if HCE believes a provider should be considered for sanctioning, a discussion will be held with the Program Integrity Manager. HCE will provide the Program Integrity Manager with all relevant and available information in order to make an appropriate decision on whether the provider's actions warrant sanction activity.

e. Initiate appropriate action to recover erroneous provider payments. Refer the cases to the program integrity staff that will take over the recovery or refund process as appropriate.

When payment errors are identified in the process of a medical necessity review, the nurse reviewer will develop an initial findings letter, allowing the provider an opportunity to submit additional documentation to support their decision. If additional information is received, the record will be re-reviewed by a peer consultant to determine if the information submitted is enough to support the provider's decision. In cases where the peer reviewer's determination is not overturned based on the additional information, the case will be sent to the SUR staff for final letters and recovery of overpayment.

f. Provide professional medical staff to perform post-payment medical necessity review as directed by the Department, including a medical director (an experienced managing physician who can be an MD or DO), nurses, and peer consultants (such as psychologists, dentists, therapists and other medical professionals) with recognized credentials in the service area being reviewed. These medical consultants must be licensed or otherwise legally able to practice in the state of Iowa and possess the professional credentials to provide expert witness testimony in hearings or appeals. The program integrity contractor's medical director will coordinate with the Chief Medical Director in Medical Services as needed.

One of the initial tasks of the Program Integrity Medical Director during the pre-operation readiness phase will be to finalize the recruitment and training of a peer review panel. The panel will include, at a minimum, appropriately credentialed and licensed physicians of various specialties, including surgeons; chiropractors; dentists; therapists; nurse practitioners; and others as appropriate and needed. All peer reviewers will be licensed for practice in the state of Iowa and will be able to provide testimony as expert witnesses in hearings and/or appeals. HCE's Medical Director will work closely with the IME Medical Director, as well as the Member Services Medical Director to assure coordination of issues, policy, etc., across the IME. We also will coordinate with the Iowa Foundation for Medical Care to potentially utilize peer reviewers already working within the IME system who have knowledge and experience with Iowa Medicaid, utilization review criteria, and the Iowa Administrative Code.

g. **On a monthly basis, pull a random sample of 200 paid claims from the claims paid in the prior six months, targeting Department-approved claim types that yield the most savings. Identify the sample within 10 working days of the end of the prior month. Request records from the provider within five days of receipt of the sample and follow Iowa Administrative Code 441—79.4(3) for receipt of the records. Issue denial and pursue recovery for any claim where the medical record has not been received timely. Complete the review, on average, and recovery notice, when indicated, within 90 days when all documentation required necessary to perform the review has been obtained.**

HCE and Thomson Reuters will develop a protocol to pull a monthly random sample from paid claims, targeting areas with probability of significant savings to the IME. HCE has standing Operations Assessments Committee meetings on a monthly basis in which areas for SUR reviews are identified. In the future, these meetings will include data for potential medical necessity reviews, and identification of the sample will occur within 10 working days from the end of the prior month. Once the sample has been identified, we will develop and send out letters to the providers within five days, with timeframes and protocols based on the IAC 441-79.4(3). Medical records not received or not received in a timely manner, will have payment denied and recovery initiated. Processes will be developed, following the example of current SUR review protocols, to complete reviews within an average of 90 days from when all necessary documentation has been received to perform the review.

6.2.3.3 Performance Standards

Within 15 days of the end of each quarter, HCE will develop and submit a report identifying the number of claims reviewed, percentage and number of validated claims, percentage and number of claims denied, and the number of recoveries and resulting monies recouped.

6.2.4 Medicaid Value Management (MVM) Program

HCE, with its experience with the Iowa Medicaid Enterprise, as well as Medicare Quality Improvement Organization experience, along with Thomson Reuters' vast experience in data mining, profiling, and analysis, brings a wealth of experience and knowledge to the Medicaid

Value Management (MVM) program. In the information below, we will describe our initial thoughts on areas for potential projects.

Through its current and previous Medicare QIO contracts, HCE has conducted and continues to conduct quality improvement initiatives with various types of health care providers, including hospitals, nursing homes, and physician offices. In previous QIO contracts, HCE has developed and implemented multiple projects targeted prevention of payment errors. Projects were developed based on data analysis and trending for areas of high risk and potential for high dollar errors. In its previous Medicare contracts in Indiana and Kentucky, HCE saved Medicare over $2 million from one project.

Thomson Reuters brings nationally recognized benchmarks and a broad base of data to this program, and with its experience in Medicaid programs in similar projects, will support this program with its nationally recognized resources.

Ongoing evaluation of MVM projects will be undertaken to assure appropriate recommendations are made for follow-up by the IME, as needed. Changes recommended may be related to claims edits, additional disease management or case management activities, policy, or administrative code, to name a few.

Thomson Reuters explains in detail in this section the predictive modeling tool for the MVM program.

The HCE team recommends a total of ten projects in the first year, allowing time for Thomson Reuters to implement the data component in November 2010, and time for the MVM project team to come together and determine appropriate areas of focus once the data are made available. Recommendations for potential projects are made later in this section.

6.2.4.1 State Responsibilities

HCE will work with the Program Integrity Director to assure monthly meetings occur and are focused on desired outcomes. We also will meet regularly with the Program Integrity Director to assure projects are on target and will make recommendations for follow-up by the IME, as needed.

6.2.4.2 Contractor Responsibilities

a. The Program Integrity Medical Director leads the MVM team in the evaluation and analysis of program data and developing project goals.

The Program Integrity Medical Director will be responsible for facilitating the activities of the MVM team, including setting the agenda for monthly meetings. Meetings will focus on project identification, implementation issues, and evaluation.

b. Convene and manage an MVM program team that includes Medical Services, policy staff, and other groups as necessary to perform MVM.

HCE will lead an MVM project team in monthly meetings to discuss potential projects, ongoing issues related to projects, project results, and other issues related to the MVM program. The MVM project team will include, at a minimum, the following.

- Program Integrity Medical Director
- Operations Manager, Medical Necessity and MVM
- QI Specialists, MVM
- Program Integrity Director
- MVM Data Analyst
- Medical Services representative
- Member Services representative (for lock-in, disease management, and case management purposes)
- Provider Services
- State Policy Staff

c. The team shall include a professional with health care data analysis experience such as informatics, health economics, or other health care data analysis experience.

Our team will include several professionals with healthcare data analysis experience, drawing on the breadth and depth of expertise of HCE and Thomson Reuters. In addition to the Medical Director, HCE will employ two nurses experienced in quality improvement methodologies to support the MVM projects and coordinate activities with other IME contractors. Thomson's staff will include healthcare data analysis expertise that will devote substantial time specifically to the MVM effort. Also, Thomson Reuters will have one full-time on-site data analyst dedicated solely to providing extensive ad hoc and standard reporting (see Section 6.2.2.2.e), in addition to the full-time SURS analyst provided by HCE under the current contract. The on-site position will be filled by Thomson Reuters, whose Healthcare segment employs approximately 2,000 professionals with backgrounds and credentials not only in healthcare technology and data warehousing, but also in Medicaid policy and operations, healthcare data analysis, program integrity, managed care, health plan administration, employee benefit design, medicine, epidemiology, and quantitative analysis, among other fields.

In addition to the full-time on-site data analyst required by Section 6.2.2.2.e, Thomson Reuters will provide 1.5 FTEs of support from its analytic consultants and consulting managers in other locations. A large portion of this time will be available to support MVM efforts. Also, during Year 1 Thomson Reuters will have 0.5 FTE of data analyst time focused on report development work. These analytic staff members have extensive experience in Medicaid data analysis in the areas of cost and quality management and program integrity. We will leverage the expertise of different staff on a project-by-project basis, to meet the unique MVM project requirements. For example, we can draw on analysts with specific expertise in quality and

utilization measurement, Medicaid policy analysis, overpayment and program integrity analysis, program evaluations, return on investment calculations, and other focus areas.

d. Identify nationally recognized benchmarks of health care quality and utilization and perform analysis of Medicaid data to compare to the national benchmarks to identify overutilization and deficiencies in provision of service and evaluate Iowa Medicaid performance and make recommendations to the Department.

Benchmarks and normative data will be critical to the MVM analysis, as IME data will be evaluated against other Medicaid data to identify opportunities and strategies for improvement. We will apply a broad range of benchmarks in this analysis, leveraging publicly available data as well as the unique normative data and quality measurement experience of our partner, Thomson Reuters. These assets and experience include:

- **MarketScan Research Database.** MarketScan represents the pooled experience of Thomson Reuters clients for privately insured populations and Medicare- and Medicaid-eligible individuals. The database comprises the inpatient, outpatient, and prescription drug experience more than 94 million covered lives across the U.S. The MarketScan research database is the basis of an extensive library of norms and has been the source of data for more than 210 peer-reviewed clinical and policy studies over the past nine years. Thomson Reuters customers receive access to MarketScan norms in exchange for contributing their own non-identifiable data to the MarketScan databases

- **AHRQ Healthcare Cost and Utilization Project (HCUP).** Thomson Reuters maintains a research database for the federal government that contains discharge data over 27 years on about 97 million patients that has been collected from more than 1,000 hospitals. HCUP is the largest longitudinal hospital database in the country. Among other responsibilities for AHRQ, Thomson Reuters prepares national reports on health quality and disparities. Of particular relevance for this project, Thomson Reuters designed, developed, and continues to update and improve a Web site for the government to display state-level measures of healthcare quality derived from the National Healthcare Quality Report (NHQR).

e. Develop tools and analyze Medicaid expenditures and trends over time to identify areas for possible savings or targeted interventions.

As the first step in the MVM process, the HCE team proposes an opportunities analysis. This analysis will evaluate cost, utilization and policy information across program areas. Similar to the current MVM claims analysis project, the opportunities analysis will be used to evaluate trend information to focus resources on areas that show significant, unexpected increases in expenditures. However, the opportunities analysis will expand considerably upon past MVM analyses, by adding more benchmark comparisons, more precisely quantifying the cost impact of specific factors, and applying advanced analytic methods such as Episodes of Care and predictive modeling.

As part of the opportunities assessment, we will perform a contributing factors analysis. This analysis provides insight into the typical cost drivers. Factors such as price, use, membership,

high cost, cost share, intensity and geography are analyzed relative to cost increases to determine the contribution of each. Thomson Reuters has used such an analysis to support the Georgia Department of Community Health (DCH) and the Governor's Office of Planning and Budget in identifying factors driving healthcare costs increases. Working in close partnership with Georgia DCH, Thomson Reuters has designed and completed a Medicaid Cost Driver Analysis annually since 2001. DCH uses this analysis to gain insights into actionable cost management opportunities, help develop annual budget recommendations, and track the impact of recently introduced programs. Thomson Reuters has performed similar "cost growth" analyses in other states, including: California, Nebraska, North Dakota, and South Carolina.

The opportunities assessment will provide necessary insight into program areas that would benefit from MVM projects. As drivers of cost are identified for IME, we will recommend strategies and interventions to contain these costs. The HCE team will propose MVM projects based on our extensive experience with other Medicaid agencies, knowledge of what has provided a positive return on investment (ROI) in other states, and ROI analysis we will perform specific to Iowa. Data driven policy evaluation and recommendations, backed by ROI analysis, is key to realizing savings. All potential projects will be evaluated with all available data, compared to benchmarks and norms, and a potential return on investment will be estimated to maximize IME resources.

Thomson Reuters brings to this effort significant experience with ROI analysis. For example, in another project for AHRQ, Thomson Reuters designed and developed a calculator for assessing the return on investment from improving the quality of care for asthma patients for three populations: Medicaid, the privately insured, and a subgroup of the latter – state employees and their dependents. The calculator (at http://statesnapshots.ahrq.gov/asthma/) summarizes the evidence from 52 studies for the saving or costs implications related to hospitalizations, emergency room utilization, ambulatory care visits, ancillary tests, and medications, as well as personal productivity. Thomson Reuters also has nationally recognized expertise in ROI analysis of health and wellness programs.

f. Prepare monthly reports that address the following:

1. **Evaluate the effectiveness of the projects selected for the MVM program.**
2. **Analyze the effectiveness in meeting the MVM program goals.**
3. **Conduct reviews that identify potential impact upon the MVM projects.**
4. **Compare MVM results to industry standards and quality benchmark data.**

Continuous monitoring of projects is important to ensure timely delivery, identify potential issues as early as possible, and gauge the effectiveness of the approach. To this end, the HCE team will deliver a monthly report for each project, which will analyze the effectiveness of the project relative to the MVM program goals as well as the overall project effectiveness. Goals will be clearly defined at the outset of the project, and progress toward that goal will be noted. In addition, the reports will identify any potential issues that may impact the MVM project and an action plan to remedy the problem. Benchmark or industry standard targets will be gathered at the beginning of the project. A section of the monthly report will be dedicated to this data, and will clearly identify the measurement criteria from the given benchmark. Any

discrepancies between the benchmark measurement and the MVM methodology will be noted, with expected impacts to the rate.

g. Identify projects to be included in MVM program that will benefit the IME with improving the quality of care, enhancing services, and cost savings for the Department. On a quarterly basis, recommend projects for Department review and approval.

The opportunities analysis will help identify topics for further analysis. Working in close collaboration with the MVM program team, we will identify, perform analysis, and complete at least five (5) new projects per quarter that identify areas for further analysis of IME performance, quality of care, and overutilization of services. These projects will be defined and scoped consistent with IME priorities, deadlines, and project staffing. Sample topics, grouped by strategic area, are described below:

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Thomson Reuters presents sample topics for analytic projects in the areas of IME performance, quality of care, and overutilization of services.

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h. Conduct IME data systems searches that assist in the validation of project goals.

Utilizing Thomson Reuters software tools and data mining experience, ad hoc reports of IME data can be easily generated and used to validate the outcomes of this project. Comparisons to benchmarks and norms are readily available, as well as analysis of data compared to an IME baseline to determine the effectiveness of an intervention. Goals will be clearly defined at the beginning of the project, and strategies to validate achievement of those goals will also be determined at that time.

i. Perform analysis of data and develop recommendations to add value to programs and services for the MVM program.

The HCE team will perform thorough analysis for each approved MVM project. Specifications for analysis will be determined collaboratively with IME and the MVM project team. At the completion of each project, HCE will deliver a comprehensive analysis detailing all facets of the project. Analysis of results will include recommendations for actions on the findings of the study. Recommendations may include provider or member education, policy revisions, operational enhancements, or similar interventions. Recommendations will be focused on creating or maintaining value of services and programs for the Medicaid members. This will be achieved by evaluating ROI for each project (as discussed above), considering long-term consequences and sustainability of recommendations, and most importantly, carefully evaluating the impact on the quality and appropriateness of services provided to the recipient.

j. Develop a comprehensive approach to improving quality and value for Iowa Medicaid members.

We will work with the IME, other IME contractors, and the MVM project team to develop an overarching approach to providing high quality, high value health care for Iowa Medicaid members. Based on ongoing projects, data analysis, trends, and project outcomes, annual reports will be developed that summarize the projects completed, results, and recommendations for future projects or larger-scale improvements that might be identified.

k. Provide quarterly results to the Department from the review of the claims checklist, including Iowa Medicaid norms, industry standards, and quality indicators.

The HCE team will develop a set of quality indicator reports and claims analyses which will be generated and delivered to IME on a quarterly basis. These results will help guide development of future MVM projects as well as ensuring that other department goals continue to be achieved. Benchmarks and norms will be included with the results for comparative purposes. Significant deviations from the relevant benchmarks or standards will be highlighted.

l. Propose predictive modeling software for the Department's approval to be used in analyzing Iowa Medicaid utilization and trends to identify recommendations to reduce costs and increase quality for the Iowa Medicaid Program.

Thomson Reuters provides extensive predictive modeling capabilities using the Diagnostic Cost Grouper (DCG) models which are created and maintained by Verisk Health, Inc. DCG models are used as a population-based risk adjustment methodology for evaluating and predicting the cost and use of healthcare for a given population. The models can be run against the entire database so that every individual in the database receives the concurrent and prospective risk scores as described below. Verisk Health developed their Commercial DCG models using the healthcare experience of over 6 million individuals for the concurrent model and 1.8 million for the prospective models obtained from the national Medstat MarketScan database. The models were developed using a split sample approach where development was done on half the data and then validated on the other half. The model results are re-indexed to each customer database.

The DCG method is one of the best accepted predictive models in the industry. The Society of Actuaries has found that the DCG method had higher predictive power than several competing methodologies. The DCG models can enhance your organization's capabilities to:

- Compare the performance of providers and health plans.
- Identify high-risk patients in order to better intervene and manage risk.
- Analyze the current and future burden of illness of a population of patients.
- Predict future healthcare costs for a given population.

The DCG methodology classifies patients using diagnostic and/or outpatient prescription drug information, as well as demographic information. Incorporating the DCG model provides a

factual starting point for discussions about "whose patients are sicker" and the implications of illness burden on cost and optimum resource use. DCGs provide the following advantages over other risk adjustment methods:

- **Prospective and Current Risk Scores Available:** This greatly improves predictive accuracy. For example, patients with acute illnesses such as appendicitis will have a high current risk score but a low prospective risk score.

- **Independently Validated Predictive Accuracy:** The Society of Actuaries has found that the DCG method had higher predictive power than several other competing methodologies.

- **Easily Understood, Widely Used and Accepted:** Introduced in the mid-1980s, the DCG methodology is the most broadly used risk adjustment method today.

- **Compatible with Thomson Reuters Methods and Systems:** DCG methodology can be used with Medical Episode Grouper to enhance medical management.

DCG models are available specifically for Medicare, Medicaid, and commercially insured populations. Additional information on DCGs is provided in the overview in Section 6.2.2.

Verisk Health releases new versions of their predictive models throughout the year. We evaluate each new model release to determine value to customers.

m. Participate in monthly MVM meetings.

HCE's Medical Director will lead the MVM project team meetings on a monthly basis, and will facilitate meetings to assure discussions focus on project identification, development, implementation, and evaluation.

n. Provide monthly reports prior to the monthly MVM meeting.

The monthly reports described above in **Section 6.2.4.2.f** will be delivered prior to the monthly MVM meeting, allowing adequate time for team members to review.
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o. Develop recommendations for project improvements.

With the assistance of the MVM project team, we will continually evaluate the projects undertaken through this initiative and assess their effectiveness and efficiency in improving quality and value for Iowa Medicaid members. Based on evaluations, adjustments will be made, as needed, to the MVM projects to assure the highest value to the Department.

p. Identify trends that impact the operations or fiscal management.

The opportunities assessment and contributing factors will provide insightful trend information that will be valuable for this task. The HCE team will analyze these reports to not only assist

with the generation of ideas for the MVM Program, but also to identify trends relative to overall fiscal management. Significant trends will be evaluated, and investigated further if necessary. If the trend has the potential to impact future operations or budgets, IME will be notified immediately.

6.2.4.3 Performance Standards

The HCE team will work in collaboration with IME to develop a set of quality and performance measures, which will be compiled and reviewed at least quarterly. The specifications for the measures, as well as the number of measures to be compiled, will be determined at the outset of the project. The measures should span across various program areas, include high level indicators for programmatic evaluation, and also more focused measures commonly used in the quality arena. The results of these measures will be used to derive potential MVM projects, using comparative benchmarks and norms to identify areas for improvement.

We will identify, perform, and complete at least five new MVM projects per quarter. Sample project topics are described in **Section 6.2.4.2.g.** Upon project completion, the HCE team will deliver a comprehensive report that details the project criteria, results, and recommended actions.

Many of our sample projects described in **Section 6.2.4.2.g** have saved our customers millions of dollars. The HCE team will work with IME to carefully choose MVM projects with substantial ROI potential, based on knowledge of IME policies, baseline data, and our experience in other states, in order to achieve a savings of at least $1 million annually. We will provide IME with the parameters used to calculate the savings for each project, which could include cost avoidance savings, a reduction in expenditures, or recoveries.

6.2.5 Investigation

HCE has very strong relationships with many organizations and agencies that provide information regarding potential fraudulent activities. These include, but are not limited to, all IME contractors; State policy staff; DHS field staff; MFCU; and the local Office of the Inspector General (OIG) office. In addition, providers and recipients currently use our hotline, US Postal Service mail, and the SUR e-mail address posted on the IME Web site to report potential fraudulent activities.

6.2.5.1 State Responsibilities

HCE acknowledges the State's responsibility for investigations under the Program Integrity portion of this procurement.

6.2.5.2 Contractor Responsibilities

a. Provide at least one qualified investigator to perform research.

HCE employs two certified fraud examiners (CFEs) located in Iowa who have the qualifications and experience to meet the requirements of the contract. The SUR database is used currently to track all reviews including those that result from referrals. HCE uses an "R" in the tracking number scheme that allows for the easy identification of reviews that result from referrals. Additionally, the existing database includes status fields that can be queried to produce reports of all reviews that are designated as investigations. All reviews are logged into OnBase so electronic records of all investigative activities and documents are retrievable.

b. Maintain written procedures and electronic records for all investigative activities.

Existing SUR procedures will be updated and additional procedures will be written to accommodate the RFP requirements. The SUR unit is already completing an investigative process that starts with the preliminary review and progresses to either a full review or referral outside the department. We will need to ensure we have designated investigative procedures to address the requirements of the RFP. Electronic records related to all investigations are housed in the SUR database and OnBase.

c. Document each referral received with an internal tracking number for use on all documents and electronic records related to the case.

The process of investigating any referral will be similar to how HCE currently completes a preliminary review. The referral intake includes the initial review of the complaint to see if it is related to a provider or member. Those related to member fraud are referred to Jim Smith in DIA. Once the referral is determined to be a SUR review, the case is logged into the SUR database and a folder is created to house all documentation collected. Based on the urgency of the information found by the investigator, a decision will be made as to when to present the findings to the appropriate party. Based on our strong relationship with MFCU, we have the ability to meet on an ad hoc basis or during our bi-weekly meeting**.** HCE does not currently refer cases directly to the Attorney General (AG), but works closely with the AG's office on appeal cases, as appropriate, and discusses potential cases with the AG attorney as needed. All case files to be transferred to another department will be reviewed by the contract director first.

d. Provide a status report and recommendations to the Department in advance of regularly scheduled meetings to discuss individual cases and receive Department direction for action to take on each case.

HCE has an existing reoccurring meeting with State staff to review all pending referrals to be discussed with the MFCU. These meetings include the Program Integrity Director and Program Integrity Manager and occur before the bi-weekly meetings with MFCU. The SUR database will enable HCE to produce a report on an ad hoc basis that will include all pending reviews designated as those under investigation and notes added by the investigator. The

report will be forwarded to the two State representatives the day prior to the scheduled meeting.

e. Collect, prepare, and deliver evidence (such as suspicious claims or groups of claims and all investigative documentation) to the appropriate party to follow up as directed by the Department. Appropriate parties include but are not limited to Provider Services, SUR, Medicaid Fraud Control Unit (MFCU), or Attorney General staff members.

As HCE does currently, we will complete additional data mining based on referral scenarios received from any referral source. For example, we received a complaint that a FQHC was having dental patients return several days in a row to complete services that could have been completed in one sitting. The reason for this practice has to do with the FQHC being paid on a per encounter basis. The result of this scheme was Medicaid paying far more than they should have for the service provided the member. Based on this referral, we completed additional data analysis on all FQHCs and found two other facilities using the same practice. All three facilities were referred to MFCU for further investigation.

HCE also played an integral role in the investigation conducted by the Office of Inspector General (OIG) regarding Dr. Douglas Dvorak. As a result of our efforts and persistence to ensure the issues were thoroughly investigated, Dr. Dvorak was convicted on 39 counts including mail fraud, identity theft, and money laundering. As a result, he was sentenced to 85 month incarceration and ordered to pay restitution of $71,365 and $3,900 in special assessment.

HCE is working with the Medicaid Fraud Control Unit (MFCU) on a current investigation regarding a large number of CDAC providers, recipients, a doctor and a case management company. HCE has assisted MFCU in collecting documentation and provided information gathered from conversations with potential witnesses. There are a number of indictments that will result from this investigation.

f. Develop protocols for mining of claims data to yield other undetected situations potentially suspicious of billing practices.

Underlying Thomson Reuters' data analytic software is a proven Payment Integrity Algorithm Library, a vast store of knowledge acquired over the past decade from the hundreds of rules-based algorithms have written for customers that have proven most successful in terms of financial recovery and case identification. These proven fraud, abuse, and improper payment algorithms have been defined over time by program integrity experts who have "hands-on" investigation and audit experiences and keep up with the latest schemes in different geographical regions. As in the examples below, the library includes hundreds of algorithms that detect provider fraud, recipient fraud, collusion between providers and recipients, and claim system deficiencies.

The HCE team will work with IME to choose effective algorithms to pursue, and ensure that the algorithms work correctly in the data, based on the IME business rules. Thomson Reuters reviews specific state policy and claims edits to define the algorithms so they address payment and policy unique to the state. Algorithms can also be designed 'from scratch' to fit unique needs of the state.

Thomson Reuters will maintain an analytic agenda to include a steady stream of algorithms and review targets (providers and recipients) based in the investigatory "pipeline," based on running new algorithms as well as existing ones that remain continuously productive. IME staff will periodically review and update the plan for algorithm development and production, based on the HCE team's suggestions.

Some of the most effective algorithms Thomson Reuters has delivered to state Medicaid customers in the recent past include:

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Thomson Reuters describe the following.

1. ***Some of the most effective algorithms they have recently delivered to state Medicaid customers;***
2. ***External data sources that they use for fraud/abuse detection***
3. ***Provider and member-based algorithm deliverable reports that can answer key questions and help identify trends and patterns in the data***

Additionally, they provide detailed information on their documentation and their data mining capabilities and best practices for detecting fraud.

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g. Use criteria from other special projects throughout the IME for corrective actions of inappropriate billings to determine whether additional occurrences exist that were undetected previously and initiate investigations as appropriate.

HCE and Thomson Reuters will use criteria from other special projects throughout the IME for corrective actions of inappropriate billings and to determine whether additional occurrences exist that were undetected previously and initiate investigations as appropriate.

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Thomson Reuters details two projects, used by several of their current state Medicaid customers in fighting fraud, which have resulted in high returns.

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6.2.5.3 Performance Standards

The initiation of the investigative process will be completed and documented within one business day through the SUR database. HCE has two CFEs, and will have coverage of this requirement when a staff member is out of the office for any reason. HCE will develop procedures defining the specifics related to initiating an investigation and will submit such procedures during the transition period to assure readiness of operations on July 1, 2010. Details are currently being gathered that would allow our investigator to testify in any situation including a jury trial, appeal or sanction proceeding.