

# DEPARTMENT OF HEALTH AND HUMAN SERVICES

# HHS Open Government Financial Data Quality Plan

**Data Quality Framework** 

June 21, 2010

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#### **Executive Summary**

The U.S. Department of Health and Human Services (HHS) Open Government Financial Data Quality Plan is a systematic approach to identifying the people, organizational structures, internal controls, processes, and systems used to generate and evaluate high quality spending data and to sustain data quality improvements over time. This plan addresses requirements under the Office of Management and Budget's (OMB's) *Open Government Framework for the Quality of Federal Spending Information* Guidance<sup>1</sup> issued in February 2010. The financial data quality activities outlined in this plan support the government's collaborative effort to improve data quality posted on the Web, engage the public in new participation and collaboration efforts, and improve and increase transparency and accountability of Federal funds. This plan supports the financial reporting activities outlined in the HHS Open Government Plan, and contributes to our on-going efforts to support and encourage the underlying principles of Open Government at HHS.

The push for greater transparency will benefit citizens and hold government appropriately accountable only if the data provided are meaningful, accurate, and reflect strong standards for information quality and sound financial management internal controls. This plan will be updated as needed to support additional strategies or changes deemed necessary by the Senior Accountability Official to improve financial data quality and sustain Open Government activities overtime. Our current roadmap for achieving high quality financial data for transparency reporting based on:

- risk assessment activities,
- governing principles and control activities,
- communication with key stakeholders, and
- Monitoring procedures.

This plan also outlines how HHS will apply OMB's Open Government Data Quality Framework and control processes to USASpending.gov submissions for specific types of Federal financial data. These financial data include: grants, loans, contracts, and other assistance mechanisms. The plan discusses in broad terms how HHS compiles, reviews, and monitors the quality of data provided to USASpending.gov and how we are actively leveraging existing governance bodies, business processes and guidelines set forth by OMB Circular A-123, *Management's Responsibility for Internal Control*, to support our financial data quality activities across all types of financial assistance mechanisms. These data quality framework activities will work to increase the quality and quantity of the federal spending information that is disseminated to the public, provide new data sets and reports in user friendly formats and technology, and assist HHS in accurately tracking, accounting, and reporting on HHS funds.

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<sup>&</sup>lt;sup>1</sup> OMB Memorandum for Senior Accountable Officials Over the Quality of Federal Spending Information, *Open Government Directive—Framework for the Quality of Federal Spending Information*, February 8, 2010.

#### 1. Introduction

In the words of President Barack Obama, "transparency promotes accountability and provides information for citizens about what their Government is doing" and "information maintained by the Federal Government is a national asset." HHS shares the Administration's commitment to creating an unprecedented level of openness in Government, ensuring the public trust and establishing a system of transparency, public participation, and collaboration.

To generate high quality spending data under Open Government and related transparency mandates, it is essential that HHS develops and implements a Financial Data Quality Framework that adheres to OMB's *Framework for the Quality of Federal Spending Information*, and empowers key governance to oversee internal controls for HHS financial data posted on the Web. HHS's key governance for spending data quality is led by the Senior Accountability Official – HHS' Assistant Secretary for Financial Resources (ASFR) – and leverages the HHS Risk Management Financial Oversight Board (RMFOB), the Senior Assessment Team (SAT), and ASFR Open Gov Team. This governance is responsible for assuring strong internal controls for reviewing, validating, posting, and monitoring spending data released to the public, while balancing the identified risks and vulnerabilities associated with these tasks. These collective efforts to improve data quality combined with Senior and Executive leadership and oversight of HHS Open Government implementation, reinforce our firm commitment to assuring Senior Accountability for Open Gov data and to sharing best practices and bridging gaps across HHS to improve data submission and performance.

HHS' path to stronger financial data quality will evolve over time – taking into account Administration priorities, best practices, and input from key stakeholders. HHS will leverage existing (and establish new where appropriate) internal controls, policies, processes and systems to achieve the following three objectives:

- 1. effectiveness and efficiency of the operations producing and disseminating financial information;
- 2. reliability of the financial information reported;
- 3. compliance with applicable laws and regulations.

For the purposes of the DQ Framework, Federal spending information includes, but is not limited to budgetary and accounting financial data that has acquisition, financial assistance, program and/or performance data linked to and reported with that financial data, which is disseminated to the public.

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<sup>&</sup>lt;sup>2</sup> http://www.whitehouse.gov/the press office/Transparency and Open Government/

# 2. Implementation of the HHS Open Government Data Quality Framework

HHS is the United States government's principal force for protecting the health of all Americans and providing essential human services, especially for those who are least able to help themselves. Comprising 27 agencies and offices<sup>3</sup>, HHS administers over 330 programs with a total FY 2010 budget of \$845 billion.

In such an organization, acceleration of Open Government and the institution of an appropriate Financial Data Quality Framework require an understanding of the unique nature of our programmatic lines of business, and a common agreement on the governing principles and practices which ensure data quality at its source and throughout its life cycle of use and dissemination.

The HHS Open Government Financial Data Quality Plan will address grant, contract, loan, and 'other assistance' data management and reporting throughout the pre-planning, award, post-award, and reporting phases of administration. Our approach toward implementing this framework is based on the following key steps:

- 1. Take short term/immediate actions to improve the quality of existing data streams to USASpending.gov;
- 2. Utilize, and as appropriate, re-frame HHS' existing governance structures including the Risk Management and Financial Oversight Board (RMFOB) to effectively assess risks and monitor data quality improvements;
- 3. Based on governing principles and the elements of the <a href="OMB Circular A-123">OMB Circular A-123</a> process, conduct a thorough risk analysis of business processes and systems to understand and evaluate data quality risks;
- 4. Develop a long term Departmental Data Quality Strategy to address financial data quality including gaps in financial data; and
- 5. Implement HHS' Data Quality Strategy.

Implementation of the Open Government Financial Data Quality framework must be woven into the fabric of HHS' overall business culture, supporting business processes and system architecture, and the communication strategy of our organization. Some preliminary efforts to enforce new policies and procedures that ensure the quality of Federal spending data include:

- Developing new processes and procedures to assure data quality and consistency of Recovery Act data submitted to diverse databases (including Recovery.gov and USASpending.gov).
- Requiring new Senior Accountability data certification procedures for internal data submission to the HHS Tracking Accountability in Government Grants System (TAGGS).

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<sup>&</sup>lt;sup>3</sup> For a leadership and organization chart of HHS, see <a href="https://www.hhs.gov/open">www.hhs.gov/open</a>; and for a detailed view of HHS' current organizational structure and its Operating Divisions (OPDIVs) and Staff Divisions (STAFFDIVs), visit <a href="http://www.hhs.gov/about/orgchart/index.html">http://www.hhs.gov/about/orgchart/index.html</a>.

• Developing new user feedback capabilities for online posting to engage the public in reviewing and commenting on TAGGS data definitions, quality, and accuracy.

HHS leadership is working hard to steer and influence these changes, and we will continue to keep the public informed of our progress.

In addition to the policies and procedures that HHS is implementing to improve data quality, HHS is also taking a hard look at our system internal controls influencing the quality of our spending data. Our approach to examining these system controls will utilize a Program Model that includes key steps in the architecture Data Quality Process including steps to: define, measure, analyze, improve, control, and educate on data quality. The model also outlines our Data Quality Components, which are described in Appendix A.

#### 2.1 How HHS Senior Governance will Implement the Data Quality Framework

"These (HHS) Councils will not attempt to manage Open Government via a "top-down," "command-and-control" style. Rather, they will seek to help catalyze, coordinate, and network Open Government action across HHS, incubating and supporting the work of the "open government entrepreneurs" at every level and across every HHS division who are the trailblazers helping to create a more open HHS."

—HHS Open Gov Plan

HHS' Financial Data Quality Framework is an integral part of HHS' broader Open Government Plan. The governance structure supporting the DQ Framework will leverage existing Departmental organizations and processes so that DQ activities will be incorporated into routine businesses activities across HHS. HHS' Senior Leadership is committed to increasing Department-wide accountability and transparency of our financial data and fostering a greater public understanding of the work we do and the costs associated with carrying out the HHS mission.

The Assistant Secretary for Financial Resources, who serves as the Senior Accountable Official for Financial data, will oversee the Data Quality Framework implementation in coordination, as appropriate with two key organizations: HHS' Risk Management and Financial Oversight Board (RMFOB) and the Office of the Secretary's (OS) Senior Assessment Team (OS SAT). Both groups are charged with overseeing, monitoring, and addressing financial risks including the presence (or lack thereof) of internal controls over financial information and financial reporting.

The RMFOB provides executive leadership support, commitment, and oversight for the Department's internal control program and resolution of audit findings resulting from the Chief Financial Officer's (CFO) Act financial statement and other internal audit processes. The HHS RMFOB is comprised of representatives from the following offices:

- Office of the Assistant Secretary for Financial Resources (Chair of the Board)
- Office of the Deputy Secretary

- Office of the Chief of Staff
- Office of the Assistant Secretary for Administration
- Office of the Assistant Secretary for Planning and Evaluation
- Office of General Counsel
- Centers for Medicare and Medicaid, Office of the Chief Operating Officer
- Office of the Inspector General

The OS SAT comprises Senior Executives from areas responsible for maintaining controls over key processes and systems. The SAT is a subset of the Senior Management Council that, under the direction of the ASFR as HHS' Chief Financial Officer, oversees the assessment and implementation of OMB A-123 internal controls.

The key stakeholders for ensuring successful implementation of the HHS Open Government Plan as well as the Data Quality Framework include: the Assistant Secretary for Financial Resources (ASFR); the Assistant Secretary for Administration and its Office of the Chief Information Officer; the Assistant Secretary for Planning and Evaluation (ASPE); General Counsel; and HHS' Operating Divisions. Because the Assistant Secretary for Financial Resources is both the Chair of the RMFOB and the Senior Accountable Official for Financial Data Quality, the RMFOB will provide a comprehensive forum to address financial data quality issues and ensure coordination across the Department.

#### Specific Activities and Additional Collaboration

Both the OS SAT and the RMFOB will include Open Government Financial Data Quality activities as a standing agenda item in all of their discussions on data quality issues that impact financial information. ASFR, as the Senior Accountable Official, and ASPE, as chair of the HHS Data Council, will ensure coordination between the two organizations and the integration of activities for HHS' broader Open Government Plan. The HHS Financial Data Quality Framework complements the HHS Information Quality Guidelines. The HHS Information Quality Guidelines are designed to ensure the quality, objectivity, utility, and integrity of the substantive non-financial information that HHS disseminates to the public.

The ASFR Open Government Team comprises Subject Matter Exports (SMEs) from ASFR's Office of Finance, Office of Recovery Act Coordination (ORAC), Office of Grants and Acquisition Policy and Accountability (OGAPA), as well as representatives from the Office of the Chief Information Officer and the Program Support Center. The Team will work closely with the RMFOB, the OS SAT, and Senior Accountable Officials in HHS's Operating Divisions (OPDIVS) and Staff Divisions (STAFFDIVS) to align monitoring activities in an efficient and streamlined manner.

Additionally, HHS' core data collection and reporting systems for financial assistance and contractual data – <u>Tracking Accountability in Government Grants System</u> (TAGGS) and <u>Departmental Contract Information System</u> (DCIS), respectively – are supported by cross-Departmental working groups that will address system enhancements and configuration changes that may be needed in improve the quality of their respective data. In addition to ensuring OPDIV and STAFFDIV representation in the development of the financial data

quality strategy and HHS' implementation of the financial data quality framework, these working groups also aid in the flow-down of data quality improvements to each of the Department's OPDIVs and STAFFDIVs.

#### 2.2 Assessment Methodology Used to Qualify and Quantify Risks and Vulnerabilities

HHS continues to work on ensuring full compliance for all applicable standards set forth in the Treasury and General Government Appropriations Act of 2001 (*The Information Quality Act, P.L. 106-554 §515*). Toward this end, and in direct response to the Open Government Directive, HHS is taking action to improve the quality of Federal Spending Information posted on websites like <u>USASpending.gov</u>, <u>Recovery.gov</u>, and the <u>Federal Assistance Award Data System</u> (FAADs).

Our goal is to ensure and maximize the quality, objectivity, utility and integrity of publicly disseminated Federal information while balancing the risks, vulnerabilities, and costs associated with these tasks. We want to ensure that we provide the best data we can to the American people at the lowest cost possible.

To improve the quality of federal spending information, HHS will develop and utilize a risk-based approach for assessing the existing processes and systems used to compile transparency spending data and assess the probability of occurrence and impact of inherent and potential risks. The risk assessment process facilitates the identification of risks related to federal spending information, rating of risks identified and rating the probability of occurrence and impact of these risks. The identification of the risks related to the quality of federal spending information will provide a basis for developing a comprehensive approach to reducing data quality risks and a mitigation strategy to improve the quality of federal spending information shared with the public. For the purposes of developing the risk-based approach, HHS will limit the scope of the approach to federal spending information accessible through these three public venues:

- USASpending.gov: The data on this website is largely from:
  - The <u>Federal Procurement Data System (FPDS)</u>, which contains information about federal contracts; and
  - The <u>Federal Assistance Award Data System (FAADs)</u>, which contains information about federal financial assistance such as grants, loans, insurance, and direct subsidies like Social Security.
- Recovery.gov: This website provides accountability and transparency in the use of funds made available in the American Reinvestment and Recovery Act (ARRA) of 2009. The website includes several sources of financial data, including:
  - Recipient reported data, which is compiled from quarterly reports submitted by recipients on FederalReporting.gov;
  - Agency reported award data, which are populated from USASpending.gov;
  - Weekly financial and activity reports, which are compiled by the HHS Office of Finance and provide a list of HHS Recovery Act appropriations, obligations, and disbursements.

<u>Federal Assistance Award Data System (FAADs)</u>: As noted above, this is a central source of information on domestic financial assistance programs of the Federal Government. The objective of the FAADs program is to provide Congressional and state government officials with comprehensive, timely information about financial assistance awards made to the public and private recipients.

#### Risk-Based Approach to Reviewing Existing Processes and Systems

In accordance with OMB Circular A-130, *Management of Federal Information Resources*, HHS has already established information quality standards and administrative mechanisms that allow the public to seek and obtain HHS information. HHS will continue to improve the quality, objectivity, utility, and integrity of the information shared with the public. In an effort to improve the data quality of the Federal Spending Information, HHS conducted a Federal Spending Data Quality Analysis. The scope of the analysis was limited to three Federal Financial Spending Areas: Grants Management, Acquisition (Contracts), and Loans Systems. The transmittal of HHS Grants Management, Acquisition, and Loans information to the Financial Management and Financial Reporting Systems is shared with the public through the public venues.

HHS will leverage the work and results of the analysis to develop a risk-based approach for assessing existing processes and systems. The risk-based approach will focus primarily on significant data quality and integrity problems, such as Grants Management and Acquisition (Contracts) transactions. HHS will not focus on loan transactional information because HHS issues very few loans. The fundamental approach is to identify risks related to the quality and integrity of Grants Management and Acquisition data shared with the public on USASpending.gov, Recovery.gov and FAADs in the short-term. However, in the long-term, HHS will extend the risk identification to Aggregated Direct Payments as well as Sub Award Reporting because this information will be made public on USASpending.gov. Identified risks will be scored based on the probability of occurrence of the risk and the impact of the risk. Because this a subjective process, HHS will leverage some of the tools and techniques used to assess risk as part of the OMB Circular A-123, Management's Responsibility for Internal Control, Appendix A, Assessment, as well as tools and techniques used to perform the risk assessment for ARRA funds. In addition to these activities, Senior management will review and assess additional needs for risk assessment tools on an on-going basis to support Open Government financial risk assessment activities and to account for any new spending data elements introduced by Open Government and related mandates.

HHS will focus on high risk areas by performing a Root Cause Analysis (RCA) for each identified risk, develop a risk mitigation strategy, and establish a process for monitoring progress to reduce the risks, thereby improving the quality and integrity of the data shared with the public.

#### Risk Identification

HHS is responsible for sharing quality Federal Spending Information with the public. The information shared with the public is recorded in HHS's Financial Management and Financial Reporting Systems. As a result, the risks from lack of quality or integrity of Federal Spending Information will occur as a result of findings within the Financial Management and Reporting

systems, as well as from business processes around the system such as data verification and validation, system reconciliation, monitoring, and management review and approval.

As part of the risk identification process, HHS will document the Financial Management and Reporting Systems and core business processes for the Grants Management and Acquisition (Contracts). For the Federal Spending Data Quality Analysis, HHS identified the Financial Management and Reporting Systems as well as findings related to the quality of the data from each system. HHS will leverage the results of the analysis to develop a comprehensive list of risks such as errors or omissions within the data, breach of confidentiality and privacy resulting from the data shared with the public, security violations, or restricted and incomplete data.

#### Risk Rating

After the risk identification process is complete, HHS will rate the risks based on the probability of occurrence and impact. HHS will identify criteria that could impact the risk rating such as:

- Definitions (semantics)
- Timing/frequency of transactions and the date/time they are reported
- Granularity of data
- Policies
- Reporting
- Governance (stewardship and data sources)

A partial list of the kinds of risks discovered in this preliminary analysis includes:

- Inconsistent data—data at different granularities, from different sources, or with different definitions
- Data synchronization issues between quarterly and annual expenditure reports
- Manual reconciliation of discrepancies
- Excessive downtime of systems for end-of-period reconciliations
- Duplication where transactions are done both electronically and manually
- Data inconsistencies between systems
- Absence of Department-wide policies or standards for processing data

HHS will develop and leverage tools to provide consistency to the risk rating process and will rate each risk as High (High Probability of Occurrence and Impact), Medium (Medium to High Probability of Occurrence and Medium to High Impact), and Low (Medium to Low Probability of Occurrence and Medium to Low Impact). If needed, HHS will develop other tools and apply other techniques to standardize the risk rating process.

#### Root Cause Analysis of High Risk Areas

HHS will prioritize the risks based on the risk ratings. The high risk areas will be addressed immediately by developing a Root Cause Analysis (RCA), which will provide details on the cause of the risk. HHS will leverage the root causes identified as part of the Federal Spending

Data Quality Analysis. Once it identifies all of the root causes, HHS will assess the results to identify areas that are recurring or resulting in the risks identified.

#### Risk Mitigation Strategy

HHS will develop a risk mitigation strategy to address the root causes identified in the RCA. HHS will leverage some of the recommendations identified in the Federal Spending Data Quality Analysis, leverage recommendations that will result from other reports related to the Financial Management and Reporting Systems for Grants Management and Acquisition (Contracts), and identify business process improvements or reengineering applicable to the Grants Management and Acquisition (Contracts).

HHS is currently examining ways to integrate Open Government root cause analysis and risk assessment activities within our existing risk assessment and A-123 processes. Due to current budget and scope limitations, as well as planned activities and competing priorities, specific risks will be highlighted in the Open Gov Financial Data Quality Plan as soon as this information is available.

### 2.3 Governing Principles and Control Activities to Ensure Data Quality and Integrity

HHS will use existing governance structures such as the RMFOB and the OS SAT to implement the governing principles and control activities of our Open Government Financial Data Quality Framework.

Internal controls over financial reporting include the design and implementation of policies and procedures management deemed necessary to provide reasonable assurance that an organization's financial statements are fairly presented in accordance with the basis of accounting chosen by management. OMB defines internal control as steps an agency takes to provide reasonable assurance that the agency's objectives are achieved through: (1) effectiveness and efficiency of operations (Federal Manager's Financial Integrity Act (FMIA) of 1982 Section 2); (2) reliable financial reporting (OMB Circular A-123, Appendix A); and (3) compliance with applicable laws and regulations (FMFIA Sections 2 and 4). Safeguarding assets is a subset of all of these objectives. Internal control should be designed to provide reasonable assurance to prevent or detect unauthorized grant award, acquisition, and use or disposition of assets.

As outlined in previous sections, HHS's implementation of the Financial Data Quality Framework will consist of short-term actions and long-term remediation strategies to address data quality gaps or inconsistencies. Following RMFOB and SAT review and assessment, HHS will develop a comprehensive strategy for Open Government Financial Data Quality that will include the risk-based approach outlined above and the corrective actions to systems, internal controls, organizational structures, and other processes to close data quality gaps and

FEAE8569CECB/0/FINAL Understanding Internal Control Services government.pdf.

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<sup>&</sup>lt;sup>4</sup> American Institute of Certified Public Accountants, 'Members in Government Guide to Internal Control and Internal Control Services,' 2009, New York, New York. Link available at <a href="http://fmcenter.aicpa.org/NR/rdonlyres/E3E77384-E4BA-4F90-BAE4-">http://fmcenter.aicpa.org/NR/rdonlyres/E3E77384-E4BA-4F90-BAE4-</a>

sustain improved financial reporting overtime. The strategy will include key internal milestones and performance goals and allow citizens to review our progress.

The HHS Open Government Financial Data Quality Framework will take into account the following governing principles:

- **Presentation and Disclosure** Whether the entity's legal rights and obligations are presented properly and described adequately in the financial statements;
- Existence and Occurrence Assets, liabilities, and ownership interests exist as a specific date, and recorded transactions represent events that actually occurred during a certain period;
- **Rights and Obligations** Assets are the rights and liabilities are the obligations of the entity at a given date;
- Completeness All transactions and other events and circumstances that occurred during a specific period and that should have been recognized in that period, have in fact been recorded.
- Accuracy, Valuation, or Allocation Asset, liability, revenue, and expense components are recorded at appropriate amounts in conformity with relevant and appropriate accounting principles. Transactions are mathematically correct and appropriately summarized and recorded in Agency books and records.
- **Cut Off** Transactions and events have been recorded in the correct accounting period. **Classification and Understandability** Items in the statements have been properly described, sorted, and classified. Financial information is appropriately presented and described, and information in disclosures is expressed clearly.

In addition to reviewing and assessing the risks and vulnerabilities associated with on-going Open Government data compilation and submission HHS is embarking on several activities across the Office of the Assistant Secretary for Financial Resources (ASFR) to review and assess the quality of data released to the public in the past. These activities include quarterly ASFR reviews and downloads of assistance data submitted to USASpending.gov and Recovery.gov, and data reconciliation efforts with financial systems of records on an ongoing basis.

#### 2.4 Communications for Engaging the Public

HHS is committed to the principles of Open Government and sees all of our communications efforts as ways to encourage and promote the goals of Open Government. Even prior to the Open Government Directive, HHS was using its Public Affairs assets to engage the public and our employees on best practices for Open Government implementation and partnering with Federal Agencies to identify key stakeholders for increased public participation and collaboration.

From web videos, web cast forums, and weekly reports on healthreform.gov to the flu symptom tool and the flu vaccine finder on <u>flu.gov</u>, to the helpful safe food tips on <u>foodsafety.gov</u> to the fraud finder map on <u>stopmedicarefraud.gov</u>, our goal has been to centralize and focus our communications efforts across HHS into easy one-step consumer campaigns. Using these efforts

as models for success, HHS is launching a new TAGGS web-site that will solicit public feedback on assistance spending data quality and afford the public a user friendly and secure forum to report data quality inconsistencies or irregularities. HHS will also use this web-site to provide increased reports and data downloads to States and associations for reporting on their grant awards, including Recovery Act and Health Care Reform grants. HHS anticipates the launch of this new web-site in July 2010.

Our Senior leadership will play a critical role in on-going communication with the public on implementation activities for our Open Government Data Quality Framework, and in the transparency, collaboration, and participation improvements under way at HHS. We intend to model our engagement with the public on HHS data quality after the communication strategies outlined in the HHS Open Government Plan.

#### 2.5 Monitoring the Financial Data Quality Framework and Evaluating Performance

The ASFR will monitor financial data quality for accuracy, timeliness, and completeness utilizing existing reviews, processes, testing, and risk mitigation activities to the greatest extent possible. The ASFR will be assisted by the ASFR Open Government Team, which will work closely with the RMFOB and OS SAT to align monitoring activities in an efficient and streamlined manner and track and report progress on a routine basis.

The ASFR Open Government Team will leverage existing or establish new Subject Matter Expert (SME) sub-committees on grants, contracts, loans, and 'other assistance' to ensure that the unique reporting requirements and life cycles of these different types of transactions are considered in developing appropriate internal metrics for monitoring and review. The Team will coordinate all monitoring and evaluation efforts for financial data with the HHS Data Council and HHS' Chief Technology Officer (CTO) for accurate and comprehensive quarterly performance reporting to the Secretary, the Office of Management and Budget (OMB), and key stakeholders. Section 5 contains an additional discussion of short and long term monitoring activities for Open Government spending data, including monitoring data quality on USASpending.gov and Recovery.gov sites.

Additional monitoring activities will focus on data submission from TAGGS and the Departmental Contracts Information System to USASpending.gov, and engaging system owners and program specialists across HHS in Open Government spending data quality improvement activities. An additional description of specific monitoring activities for TAGGS and DCIS can be found in Section 4.

# 3. Applying the HHS Financial Data Quality Framework to USASpending.gov Compliance

HHS is committed and actively engaged in refining its current business processes and routines to strengthen financial reporting in regularly scheduled data submission to USASpending.gov, and participating closely on OMB's USASpending.gov Governance body to develop solutions that assure enhanced data quality and reconciliation with applicable financial reports.

The Department is also committed to working with the Chief Financial Officer's (CFO) Council on government-wide efforts to improve financial reporting on USASpending.gov (to learn more about the CFO Council and their role in improving financial management in the U.S. Government, visit their web-site at <a href="http://www.cfoc.gov/">http://www.cfoc.gov/</a>).

To oversee these efforts, the ASFR will coordinate with the HHS Open Government Implementation Steering Committee, the Chief Financial Officer, and other key officials to drive the organizational, business, and system transformation necessary for improving the quality of these spending data.

Implementing strategic solutions in these areas for an organization as complex as HHS requires careful planning, analysis, and decision-making by management. Resource needs and current budget constraints must be evaluated and considered prior to formulating and executing our Data Quality Framework and strategy. HHS will keep the public posted on our progress via updates to the Plan on the HHS Open Government web-site, and seek public input as appropriate.

Our Open Government Financial Data Quality Framework and the specific control processes outlined in our Risk Assessment (please see Section 2.2) will be applied to the reporting of grants, contracts, loans, and 'other assistance data' to USASpending.gov as follows:

#### 3.1 Reporting Spending Data for Grants

As noted in HHS' Open Government Plan, HHS uses its <u>Tracking Accountability in Government Grants System (TAGGS)</u> to send assistance to USASpending.gov. The DQ Framework and internal control processes outlined in this plan will strengthen Senior Accountability for data submission to TAGGS from HHS Centers of Excellence (CoE's) Grants Management Systems, and enhance internal controls and data validation from TAGGS to USASpending.gov.

TAGGS is responsible for reporting over \$360 billion dollars annually (with the recent passage of the Recovery Act) and provides Congress, the general public, OMB, and other key stakeholders with customized and canned reports on grant spending on a regular basis. Since the passage of the Federal Funding Accountability and Transparency Act (FFATA) and the Recovery Act, Congressional, Executive, and public requests for TAGGS data and reports have nearly tripled. Responsible for approximately 60% of the Federal government's grant dollars, HHS is committed to ensuring that USASpending.gov grant data are accurate and reflect sound stewardship of tax payer dollars.

TAGGS primarily collects data from HHS Grants Management CoE's for transmission to USASpending.gov. A CoE is a system the Department has designated to serve as a primary provider and standard for grants management systems for all HHS grant-making agencies. These systems are required to maintain standards of excellence for managing grants throughout the life cycle of administration and support the Department's grants systems consolidation goals to streamline for efficiency, reduce duplication, and reduce cost for IT systems. The two CoE's are the Administration for Children and Families (ACF) GATES/GrantsSolutions.gov and the National Institutes of Health (NIH) Information for Management Planning Analysis and Coordination (IMPAC) II systems.

Grant data from HHS' Operating Divisions and Staff Divisions are submitted on a weekly and bi-weekly basis to TAGGS, and these data are reported to USASpending.gov on a bi-weekly basis. HHS has instituted data validation processes to ensure the consistency and accuracy of its grants award data. Additional details on HHS grant data submission to USASpending.gov are as follows:

- Applicable Types of Grant Awards for HHS: Mandatory Grants (including Block, Closed, and Open-ended Awards), Discretionary Grants, and Cooperative Agreements.
- Steps for Compiling and Reporting Grant Data: The TAGGS USASpending.gov data submission and validation processes are outlined in the two figures below. In summary, the key steps of this process are as follows:
  - The OPDIV and STAFFDIV data submissions loading schedule is reviewed to ensure that the latest data files have been fully processed and the TAGGS database is up-to-date.
  - The Export Application is run to initiate the Staging process. The Staging process compares received data and previously submitted records to create a list of new, deleted, or updated records.
  - Validation is performed on the data before and after exporting it to the final FFATA submission file. The submission file is a fixed width text file that is sent through the Data Submission and Validation Tool (DSVT) provided by USASpending.gov.
  - The data presented on the USASpending.gov website is selectively verified to ensure that it accurately reflects the submitted data.
- Amount of Time Lapsed Between Execution of the Transaction and Reporting to USASpending.gov: Based on internal data quality reviews of HHS' USASpending.gov grant data submission, there is an approximate three to four week lag period between execution of the transaction and reporting to USASpending.gov. This lag period is based on:
  - Bi-weekly scheduled data submission to USASpending.gov,
  - USASpending.gov Technical Support review and posting, and
  - any additional corrections or validation necessary to ensure successful transmission and posting to the site.

#### 3.2 Reporting Spending Data for Contracts

As noted in the HHS Open Government Plan, HHS uses its <u>Departmental Contracts Information System</u> (DCIS) to collect, report, and transmit contract award data to the Federal Procurement Database System (FPDS). The Financial DQ Framework and internal control processes outlined in this plan will strengthen Senior Accountability for data submission to DCIS from HHS' OPDIVs and STAFFDIVs and their contract writing systems to USASpending.gov. DCIS serves as a data repository and acquisition management information system for HHS and the system through which its contract award information is sent to the <u>Federal Procurement Data System</u> (FPDS).

HHS relies upon the data validation and edit-check features found within FPDS to ensure the accuracy and completeness of its contract award data. The timeliness of each contracting offices' completion of the contract action reports is measured on a quarterly basis. These financial data are transmitted to USASpending.gov by FPDS on a bi-weekly basis. OMB posts these data on USASpending.gov on a bi-weekly and monthly basis. Additional details on HHS contract data submissions to USASpending.gov are as follows:

- Applicable Types of Contract Awards for HHS: Contracts and orders awarded in accordance with the FAR and reported to the Federal Procurement Data System Next Generation, which is run by the General Services Administration.
- Steps for Compiling and Reporting Contract Data: HHS acquisition systems are connected, on line with the DCIS system. DCIS is connected online with FPDS. All system connections are implemented using Service Oriented Architecture software, web services and XML transaction formats. A contract action entered in an HHS acquisition system is stored in DCIS and FPDS simultaneously. This ensures timely and complete reporting.

FPDS is the primary system of record for Government procurement actions, as well as the primary data source for USASpending.gov for contract actions. The primary data set for contract actions is sent directly from FPDS to USASpending.com. A supplementary file is sent from HHS to USASpending.com, semi-monthly. Currently, all contract data, reported to USASpending.gov, is sent from FPDS, with the exception of the Treasury Account Symbol (TAS) item. HHS provides a supplementary file to USASpending.gov to provide the TAS data for contract actions.

The file format submitted by HHS is specified by Memorandum M-09-9, issued by Vivek Kundra, Federal CIO, Office of Management and Budget, June 1, 2009. The section "FORMAT FOR SUBMITTING PROGRAM SOURCE DATA" specifies the fixed file format for contract action records.

• Amount of Time Lapsed Between Execution of the Transaction and Reporting to USASpending.gov: The amount of time lapsed between execution of the Contract Action and Reporting to USASpending.gov is contingent upon USASpending.gov data pulls and loading from FPDS through the Integrated Acquisition Environment (IAE).

Program source transmissions are typically posted within three weeks of transmission to USASpending.gov.

#### 3.3 Reporting Spending Data for Loans

HHS loans represent a very small portion of the total HHS budget (less than 0.1%). These data are not currently sent to USASpending.gov because the current Department solution for submitting assistance is limited to grants. The requirements for capturing these data, ensuring privacy, and other security concerns, can pose many challenges for streamlined reporting. Quite often financial assistance classified as 'loans' are awarded to individuals and the electronic management and reporting of these data to the Web must carefully safeguard personally identifiable information and other confidential information. The Department is actively reviewing existing solutions that can meet these needs, while assessing potential development costs that may be necessary to enhance internal controls for privacy impacts on data submission. HHS will continue to keep the public posted on its progress for selecting an appropriate solution in our Data Quality Strategy.

- Applicable Types of Loans for HHS: Direct loans.
- Steps for Compiling and Reporting Loan Data: These steps will be determined in our next iteration of the Data Quality Framework
- Amount of Time Lapsed Between Execution of the Transaction and Reporting to USASpending.gov: These data are not currently sent to USASpending.gov.

#### 3.4 Reporting Spending Data for Other Assistance

Other Assistance transactions cover a significant portion of the HHS budget. Primarily, aggregated direct payments account for nearly three quarters of the total HHS budget. Medicaid, Medicare, Temporary Assistance for Needy Families (TANF), Medicare Prescription Drug Coverage, and other HHS direct payment programs are primarily impacted by these reporting requirements. Although HHS is providing some aggregated direct payment data to USASpending.gov, HHS has identified key gaps that are included in our risk assessment approach for identifying immediate mitigation strategies.

It is important to note that the Federal Funding Accountability and Transparency Act (FFATA)<sup>5</sup> specifically exclude the reporting of direct payments to individuals. Similar to loans, accurately tracking and reporting aggregated direct payments poses many risks to protecting the privacy of individuals and safeguarding national security concerns as well as ensuring that Senior leadership is accountable for the appropriate data and systems used to generate these data. HHS is working to institute processes and frameworks that take into account short term and long term impacts on systems, organizational structures, data ownership, and accountability.

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<sup>&</sup>lt;sup>5</sup> ^ <u>a</u> <u>b</u> "Federal Funding Accountability and Transparency Act of 2006 (S. 2590) Text" (PDF). GPO. http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=109\_cong\_bills&docid=f:s2590rs.txt.pdf. Retrieved August 32, 2006.

- Applicable Types of Other Assistance for HHS: Aggregated Direct Payments, Compacts, Tribal Agreements, Scholarships
- Steps for Compiling and Reporting Other Assistance Data: These steps will be determined in our next iteration of the Data Quality Framework
- Amount of Time Lapsed Between Execution of the Transaction and Reporting to USASpending.gov: These data are not currently sent to USASpending.gov.

# 4. Reviewing USASpending.gov Financial Data for Accuracy and Completeness

<u>USASpending.gov</u> is the Office of Management and Budget's response to the requirements of the Federal Funding Accountability and Transparency Act of 2006 (Transparency Act or FFATA). The Transparency Act requires a single searchable website, accessible by the public for free that includes for each federal award:

- Name of the entity receiving the award;
- Amount of the award;
- Information on the award including transaction type, funding agency, etc;
- Location of the entity receiving the award; and
- Unique identifier of the entity receiving the award.

Steps to assure the accuracy and completeness of spending data on USASpending.gov have evolved since the launch of the web-site in 2007. OMB has worked with Agencies to establish clear definitions of 'accuracy' and 'completeness' for reported transactions at a particular snap shot in time and HHS has worked across its sub-Agencies to:

- identify the management personnel responsible for reviewing the data prior to submission.
- implement processes to ensure consistency of Federal spending information submitted to USASpending.gov with similar data reported through other venues, and
- implement processes to ensure completeness of Federal spending info and use of control totals.

Our efforts in these areas have been instrumental in assisting us with identifying initial gaps in reporting to USASpending.gov and Recovery.gov, and in developing remediation strategies to address challenges in the short term and long term. While our progress to date is detailed in the sections below, it is important to note that since 2006 HHS has achieved outstanding performance on USASpending.gov data transmission and compliance. To view current HHS USASpending.gov performance, based on timeliness and content of data submission, visit: <a href="http://www.usaspending.gov/data/Agency%20Submission%20Summary02-09-2010.pdf">http://www.usaspending.gov/data/Agency%20Submission%20Summary02-09-2010.pdf</a>.

### 4.1 Identifying the Management Personnel Responsible for Reviewing the Data Prior to Submission

The Office of the Assistant Secretary for Financial Resources (ASFR) was recently reorganized to support the review and coordination of transparency reporting. ASFR's Office of Grants and Acquisition Policy and Accountability (OGAPA), which houses the central reporting systems used to provide data to USASpending.gov (TAGGS and DCIS), works closely with the ASFR Office of Recovery Act Coordination and the Office of Finance to support Senior management reviews of USASpending.gov and Recovery.gov data. Data are validated by appropriate representatives within HHS' OPDIVs and STAFFDIVs prior to ASFR submission and additional validation process are employed to assure accuracy and completeness. These details are described below:

#### Grants

Each grant-making OPDIV designates a Senior Accountability Official for data transmission to TAGGS that serves as a representative on the TAGGS Advisory Workgroup (TAW). The TAW is a Department-wide governance team formed to address technical, policy, and data quality issues specific to TAGGS. This body governs all technical and policy changes made to the system to support grant data submission and provides input on strategies for USASpending.gov submission.

Each OPDIV Senior Accountability Official is responsible for ensuring that Quality Control (QC) Files accompany each individual data submission. QC files provide control total information for submission and ensure that the OPDIV data transmitted and loaded are accurate from both ends of transmission. Additional discussion on QC files and how they are used will be detailed in our progress on ensuring the completeness of USASpending.gov grant information.

#### **Contracts**

Similar to the TAGGS Advisory Workgroup (TAW), the DCIS Workgroup provides Department-wide governance over the system and ensures representation from HHS' contracting offices to address technical and policy-based changes to the system. This body governs all technical and policy changes made to the system to support contract data submission, and provides input on strategies for FPDS and USASpending.gov submission.

Each Head of Contracting Activity (HCAs) is held accountable for the quality of the contract data reported to DCIS; and is measured quarterly – using HHS' Acquisition Performance Dashboard – on their respective data accuracy efforts. Of the ten HCAs, for the 2<sup>nd</sup> quarter of fiscal year 2010, five have reported a data accuracy rating of 90% or higher; four are between 75% and 90%; and one is at 50%. The overall data accuracy for HHS for this quarter, based on a weighted average of the HCAs, is 85%. For fiscal year 2009 and based on results of the sampling reviews for the ten HHS contracting offices, HHS reported an overall data accuracy rate of 97.8%. As can be seen by contrasting the 2<sup>nd</sup> quarter fiscal year 2010 data with the total fiscal year 2009 data, quality reviews that occur throughout the fiscal year result in improved ratings by the end of the fiscal year.

# 4.2 Implementing Processes to Ensure Consistency of Federal Spending Information Submitted to USASpending.gov with Similar Data Reported Through Other Venues

#### Grants

There are six dimensions of data quality that the TAGGS team uses to ensure consistency of Federal Spending Information submitted to USASpending.gov with similar data reported through other venues. These are discussed in the table below.

Dimension	Process Assurance				
Accuracy	TAGGS data accuracy is highly dependent on OPDIV participation in the data				
	validation process. As such, additional external sources may be required to				
	check the OPDIVs' submissions.				
Completeness	Data submitted by the OPDIVs must be as complete as possible. To ensure				
	completeness, the TAGGS Data Loader program enforces a mandatory data				
	check during the loading process.				
Validity	TAGGS data must be recorded in compliance with validation rules and				
	definitions. Existing TAGGS data validation rules are defined for the following :				
	Data Loading				
	CFDA Program				
Reliability	TAGGS data collection must employ a stable and repeatable process. To this				
	end, TAGGS data is compared with a Quality Control file that is sent by each				
	OPDIV. Feedback loops exist from the OPDIV to the TAGGS team and back to				
	the OPDIV.				
Timeliness	TAGGS data is always changing. Therefore, it is important to collect the data on				
	a regular basis, as specified in System Interface File (SIF).				
Relevance	To ensure that relevant data is being collected and reported by TAGGS, the SIF is				
	reviewed for update on a quarterly basis and is updated whenever there are				
	substantive changes to HHS and OMB data requirements.				

Applying the dimensions above, TAGGS works with the OGAPA Division of Grants, the Program Support Center, the Office of Finance, the Office of Recovery Act Coordination, OMB, and other offices to trouble-shoot data quality inconsistencies for spending data reported to transparency sites like Recovery.gov, FAADS, and the HHS Web. The RMFOB and the OS SAT, along with the ASFR Open Government Team, will continue to build upon these preliminary steps to ensure the consistency of spending data and outline long-term strategies to reconcile data as needed in our Data Quality Strategy.

#### **Contracts**

As noted earlier, the contract data reported to USASpending.gov is sent, primarily, from FPDS directly to the USASpending.gov system. All HHS Agencies have implemented automated contract writing systems. These systems collaborate with DCIS using web services. DCIS also collaborates with FPDS, through web services. In order to release an action, all contract actions are reported from the acquisition system to DCIS and to FPDS, on a real-time basis. All actions must pass FPDS edits, which provide for federal-wide data consistency, and are not final until they do so.

Currently, DCIS sends a supplemental file to USASpending.gov on a semi-monthly basis. The purpose of the file is to report the Treasury Account Symbol (TAS). DCIS extracts the actions reported for each time period, and transmits the file to USASpending.gov. All files reported to date have been acknowledged, and processed without errors. FPDS has added the TAS to its database, and has begun collecting the data. In the near future, FPDS will include the TAS with the submission to USASpending.gov. The DCIS file to USASpending.gov will not be required at that point.

Data accuracy reviews occur throughout the fiscal year by staff in the contracting offices as well as the OGAPA Division of Acquisition. As an example, when the Division of Acquisition prepares the quarterly report of competition or Recovery Act master file, any apparent data issues or anomalies are flagged and sent to the respective contracting office for review, validation and correction if required.

### 4.3 Implementing Processes to Ensure Completeness of Federal Information and Use of Control Totals

#### Grants

As detailed earlier, each grant-making Senior Accountable Official is responsible for including a QC file in their data submission. The QC file is used to validate control totals prior to completion of the data loading process. The QC files are based on the OPDIV's internal tracking systems of funds reported through the Notice of Award (NoA) at the time of award.

Additional control processes are followed once grant data are submitted to USASpending.gov. These include:

- Performing validation to ensure that no errors occurred during the file transfer and data loading process.
- Verifying federal funding amount totals on the USASpending.gov summary report
  page with the total federal funding amount in the FF\_MIRROR table in the TAGGS
  database, minus the rejected transactions. If any discrepancy is found, the TAGGS
  Support Team troubleshoots the issue by obtaining a more detailed breakdown of the
  summary report. This is accomplished by choosing "Grants by program" or other
  search criteria provided by the website.

As an additional validation check, the TAGGS team employs the USASpending.gov Data Submission and Validation Tool (DSVT) to ensure the validity and reliability of submitted data. Any transactions that have errors are rejected and flagged for correction. If more than 10% of the transactions fail the basic USASpending.gov validation checks, the entire file is rejected and the given OPDIV is notified of the need to provide a corrected file.

#### Contracts

HHS' Contract Reporting requirements and expectations are outlined for HHS's contracting offices in Acquisition Policy Memo <u>AMP-2008-05</u> and the <u>Health and Human Services</u> <u>Acquisition Regulation (HHSAR)</u> (see HHSAR 304.604).

The Federal Acquisition Regulation at <u>4.604(c)</u> requires the Chief Acquisition Officer (CAO) to certify the completeness and accuracy of the Department's contract data to the General Services Administration and Office of Management and Budget's Office of Federal Procurement Policy by January 5 of each year. The certification addresses the degree to which agency contract data for the preceding fiscal year is complete and accurate. The certification also addresses the cause

of any missing or inaccurate data and the steps HHS has taken, and will take in the future, to improve the accuracy of the data.

To ensure this annual certification is met, HHS requires each Head of Contract Activity (HCA) to certify to the accuracy and completeness of his or her data by December 5, along with adequate substantiation of such certifications. Additionally, to ensure timely submission of each HCA's certification and the CAO's annual certification, HHS' Senior Procurement Executive monitors the HCAs' progress – with respect to timeliness, accuracy and completeness of contract data – through the quarterly performance measures on the HHS Acquisition Performance Dashboard and through continuous dialogue at the Executive Committee for Acquisition and DCIS Configuration Committee meetings.

Consistent with HHS' Contract Data Quality Plan, HHS did not perform – and does not plan to perform – formal data quality reviews on fiscal year 2009 contract award reports. Consequently, questions about the qualifications and impartiality of reviewers, the scope and adequacy of their reviews, and accuracy computations for key data elements do not apply. However, HHS will conduct a statistically valid study of its procurement data for fiscal year 2010 – including data accuracy computations and a comparison of FPDS data to the underlying contract files.

## 5. Monitoring HHS USASpending.gov Data to Evaluate and Improve Performance

HHS' monitoring activities of spending data on USASpending.gov vary for different types of transactions. HHS has made tremendous progress to monitor grant transactions on USASpending.gov, providing OMB recommendations on technical and policy solutions to address discrepancies between TAGGS and USASpending.gov data. Acquisition has also made progress through the annual data quality certification and validation routines performed through OMB requirements. These activities are detailed in the sections below.

HHS will also work with OMB as it prepares to implement data quality measures and dashboards to promote <u>Federal Spending Transparency</u> and demonstrate the improvements made in the quality of data beginning in fiscal year 2011.

## 5.1 Providing metrics used internally to monitor the timeliness, completeness, and accuracy of data provided to USASpending.gov.

#### Grants

HHS institutes internal metrics for grant data to monitor the timeliness, completeness, and accuracy of data provided to USASpending.gov. The following table presents metrics on the timeliness, completeness, and accuracy of the last two grant data submissions to USASpending.gov:

Submitted	Timeliness	Completeness	Accuracy	
Date			Internal	External
01/20/2010	Green Status – Data submitted to USASpending.gov on the required date.	<b>100%</b> of files from OPDIVs accounted for.	<b>100%</b> of data internally validated for accuracy.	USASpending.gov showed a .1% difference is total dollar value compared to the TAGGS submission.*
02/05/2010	Green Status – Data submitted to USASpending.gov on the required date.	<b>100%</b> of files from OPDIVs accounted for.	<b>100%</b> of data internally validated for accuracy.	USASpending.gov showed a .2% difference is total dollar value compared to the TAGGS submission.*

<sup>\*</sup>The Unique Record Identifier (URI) does not currently appear in the report we receive from USAspending gov to verify the accuracy (see "Deficiencies" below).

HHS also provides OMB frequent reports on data discrepancies for USASpending.gov submission to improve accuracy on data submission reporting and posting. Internal coordination between the Office of Grants and Acquisition Policy and Accountability (OGAPA), the Office of Recovery Act Coordination (ORAC), and the Office of Finance (OF) on ARRA reporting has

also assisted HHS in monitoring USASpending.gov Recovery Act data for timeliness, completeness, and accuracy.

#### **Contracts**

As noted earlier, each <u>Head of Contracting Activity</u> (HCAs) is held accountable for the quality of the contract data reported to DCIS; and is measured quarterly – using HHS' Acquisition Performance Dashboard – on their respective data accuracy efforts. Additionally, data accuracy is monitored throughout the fiscal year by staff in the contracting offices as well as the OGAPA Division of Acquisition. As an example, when the Division of Acquisition prepares the quarterly report of competition or Recovery Act master file, any apparent data issues or anomalies are flagged and sent to the respective contracting office for review, validation and correction if required.

All contract data are edited and reported to FPDS at the time of award; as a result HHS has achieved Green Status on its timeliness. Additionally, 100% of the supplemental files sent from DCIS to USASpending.gov have been acknowledged and processed by USASpending.gov without errors.

### 5.2 Providing deficiencies already identified by the Agency regarding USASpending.gov information

#### Known Deficiencies for Grant Data Quality

- <u>Unique Record Identifier (URI) Data:</u> On occasion the report from USASpending.gov does not include the Unique Record Identifier (URI). This poses significant challenges in identifying data quality issues or concerns on USASpending.gov. HHS is actively working with OMB to address this deficiency and has provided OMB detailed reports on our findings.
- <u>Fiscal year inconsistency:</u> When HHS submits files to USASpending.gov, Fiscal Year is not a data element in the file; but when USASpending.gov uploads/posts the file on USASpending.gov, they have defined the Fiscal Year. HHS has uncovered discrepancies for Fiscal Year awards submitted v. fiscal year awards posted due to current USASpending.gov logic. HHS is actively working with OMB to address this deficiency and has provided OMB detailed reports on its findings.
- **Delays in USASpending.gov Posting:** The posted data on USASpending.gov is delayed nearly a month following our data submission to the site. This delay is being further examined by OMB for ways to reduce time lags for posting these data.
- **DUNS Number Mismatch:** A number of DUNS records posted to USASpending.gov sometimes experience a mismatch from data in TAGGS. Also, in many instances, the USASpending.gov DUNS number is combined with the "DUNS Number Plus 4" data element to form a 13 character DUNS. Since the TAGGS business rule is to send zeros as place holders, many DUNS numbers in USASpending.gov contain the additional

zeros and the result is a discrepancy in DUNS data associated with individual award transactions. HHS is actively working with OMB to address this deficiency and has provided OMB detailed reports on our findings. HHS is also taking immediate steps to research these issues further to identify data quality gaps in DUNS reporting throughout the grant award life cycle.

#### Known Deficiencies for Contract Data Quality

Contract actions must pass FPDS-NG edits, in order to be accepted and released. Some of the data due to human error pass the data validations but does not reflect the information in physical contract portfolio.

To that end and consistent with HHS' Contract Data Quality Plan, HHS has retained the services of an independent contractor to perform audits of the data, comparing the paperwork in the contract portfolio with the electronic record stored in DCIS. This audit will be a statistically valid study of its procurement data for fiscal year 2010 – including data accuracy computations and a comparison of FPDS data to the underlying contract files. The audit will identify errors, which will then be corrected by the processing contract office. The typical types of errors are human errors, which cannot be caught by the system edits. Preventing these types of errors is largely a training issue.

Additionally, in April, HHS plans to have a two day train the trainer section with its OPDIV and STAFFDIV contracting offices to review and discuss all the data elements and data descriptions in the new release note for FPDS version 1.4.

To illustrate the results of HHS' constant review of its contract award data, one review of Recovery Act (ARRA) award totals revealed instances of contract actions inaccurately being reported as Recovery Act funded in FPDS even though the data in DCIS were correct. HHS discovered that the FPDS ARRA TAS code table that generates the daily ARRA report has two incorrect TAS codes for HHS. This has created an error – an over reporting of ARRA awards – in Recovery.gov and USASpending.Gov. We are in the process of issuing a FPDS help request to resolve the issue and correct the FPDS HHS ARRA TAS data table. Upon resolution, HHS will have to report and explain the correction to relevant stakeholders, such as the Recovery Act Transparency Board.

#### 6. Updating the OMB MAX System on USASpending.gov Data Quality

#### 6.1 What is MAX and how HHS will report data quality to OMB

MAX is a web portal used by OMB and Federal Agencies to share information and collaborate. Agencies can upload reports, report on outcomes, and communicate with OMB and other agencies on existing or projected policies, guidelines, and memoranda.

#### 6.2 How HHS will track and monitor MAX compliance and performance

OMB's Open Government Framework for the Quality of Federal Spending Information requires that Agencies maintain and update templates describing the current quality of Federal spending information in USASpending.gov. These templates will be updated on a regular basis and posted to OMB MAX. HHS will continue to keep the public informed of our progress to examine USASpending.gov data quality and coordinate our efforts with OMB to evaluate and improve performance.

#### **Conclusion**

In addition to sharing the Administration's commitment to creating an unprecedented level of openness in Government, ensuring the public trust and establishing a system of transparency, public participation, and collaboration, HHS is committed to ensuring successful transformation across the Department to yield real and lasting improvement to the spending data quality of our organization. HHS' governance structures, plans for immediate action, and its long term strategy – outlined in this Data Quality Framework – will improve the quality of spending data, address known deficiencies, and facilitate a greater public understanding of the programmatic results we achieve and the value of our business operations.

#### **Appendix A -- Data Quality Components**

#### a) DQ Strategy

Data Quality Strategy is closely aligned to the key business drivers, motivations of the business organization. The business owner's vision, mission and objectives for the quality of data are paramount for the success of the data quality initiative. This component documents the key requirement for the data quality program from the key stake holders.

#### b) Current State Assessment

The current state analysis of the data quality needs to be clearly evaluated. A detailed Data Quality maturity assessment can be conducted to evaluate the current state of data quality within an organization. The DQ maturity can be assessed at five levels, these are: 1. Discovery by accident, 2. Limited actions to clean data, 3. Addressing the root cause – Enlightened, 4. Proactive Prevention, 5. Optimized. Over a period of time this assessment and the entire cycle should be repeated. A detailed evaluation of data quality may also be conducted to supplement the maturity assessment to identify key areas for improvement. Data profiling tools can be deployed to identify patterns of data and the issues related to it. Data of poor quality, dirty data, inconsistent data, inaccurate data and incomplete data can be identified during the course of this evaluation. This step can also help reveal some of the key business rule violations which results in the poor data quality data sets.

#### c) DQ Rules & Principles

Data quality related rules, uniqueness of data, business rules related to the data inheritance from various sources and via media of data needs to be clearly identified and documented. Data quality metrics needs to be defined. If data quality is not maintained at the level that is expected action steps than needs to be taken in the audits also needs to be clearly documented. Basic guiding principles like data is an asset; it is sharable, accessible, from a trusted source with clear definitions needs to be established well in advance in this program. Data Dependency rules, entity related rules, validity rules and attribute dependencies are also established to ensure data correctness, accuracy, precision, uniqueness and consistency.

#### d) Data Standards

Data definitions around the type, cardinality, optionality, precision and accuracy is documented and captured in the central repository. Also establishment of the referential integrity and the closely associated relationships are also defined and recorded. Data domains are established by analyzing the master data and reference data at its sources and recorded for data related standards. The list of values, range of values, constraints related to the lists, allowed values and patterns are clearly established.

#### e) Data Cleansing

Data cleansing is the process by which the poor quality data is transformed to attain better level of data quality. The ability to improve the quality is highly enhanced if the data is cleansed and transformed to the right level of accuracy at the source or the origin of data. Establishment of business rules related to data quality and imbibing of these rules in the data transformations improves the data-value addition in this step. Data Defect prevention is

another angle of this that needs to take into consideration the defective program logic, inadequate edits, lack of understanding of data meaning, domain definitions and reconciliation process also improves the quality of the data continually.

#### f) Semantics & Metadata

Central repository containing clear definition of data elements, establishment of a meta-model and the links between the key objects and definitions related to the elements of interest should be created. Metadata itself can be classified into business related or business process related, technical: including data related information and usage related categories. All these three categories of meta-data are important for the DQ program. Metadata management should be restricted to a group of responsible data administrators or managers, independent of the actual data owners and data stewards.

#### g) DQ Audits

Data quality audits needs to be conducted on a periodic basis. Data quality checks including screens of data should be established and run regularly. These screens basically comprises of predefined algorithms which calculated the quality of data at various stages of its lifecycle. These audits provide vital clues about the level of DQ and the program's effectiveness. It also provides further opportunities to improve the data quality in the future.

#### h) DQ Governance

DQ governance takes into consideration the identification of the data owners, data stewards and data administrators. The responsibilities of these positions, the principles, policies and guidelines which govern the decision making, ownership and resources related to the management of the data quality, needs to be established. Key sources of data, where the data actually originates needs to be identified and responsibility and accountability to ensure higher level of quality from the application programs and form level edits should also be established. If there are any training requirements were identified, clear definition of the resources related to establishing the training programs and the completion of the program should also be ensured. In all a DQ governing body should be established to monitor the implementation and support of this initiative.