



A REPORT
TO THE
MONTANA
LEGISLATURE

LEGISLATIVE AUDIT
DIVISION

15DP-01

INFORMATION SYSTEMS AUDIT

CHIMES-EA
***Combined Healthcare
Information and Montana
Eligibility System –
Enterprise Architecture***

***Department of Public Health and
Human Services***

OCTOBER 2015

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October 2015

The Legislative Audit Committee
of the Montana State Legislature:

This is our information systems audit of the Combined Healthcare Information and Montana Eligibility System–Enterprise Architecture (CHIMES-EA) managed by the Human and Community Services Division (HCSD) in the Department of Public Health and Human Services (department).

This report provides the Legislature information about system management processes and system eligibility and benefit calculations for the Supplemental Nutrition Assistance Program (SNAP) and Temporary Assistance for Needy Families (TANF). This report includes recommendations for increasing oversight of management processes and the contractor, and improving documentation, monitoring, and communication to ensure the system is functioning as intended and effectively.

We wish to express our appreciation to department personnel for their cooperation and assistance during the audit.

Respectfully submitted,

/s/ Tori Hunthausen

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MONTANA LEGISLATIVE AUDIT DIVISION

INFORMATION SYSTEMS AUDIT

CHIMES-EA Combined Healthcare Information and Montana Eligibility System – Enterprise Architecture

Department of Public Health and Human Services

OCTOBER 2015

15DP-01

REPORT SUMMARY

The CHIMES-EA system is largely functioning as expected with regard to client analysis and the issuance of benefits. However, the department needs to make improvements in several areas to increase the system's accuracy and efficiency, and improve user perception of system functionality. These include strengthening a number of processes for monitoring system performance; improving the process to repair system defects; strengthening the review of certain benefit overpayments; improving communication; and strengthening review of user access to the system.

Context

The Human and Community Service Division (HCSD), within the Department of Public Health and Human Services, manages public assistance programs for the state of Montana. The programs include:

- ♦ Supplemental Nutrition Assistance Program (SNAP)
- ♦ Temporary Assistance for Needy Families (TANF)
- ♦ Medicaid Eligibility
- ♦ Healthy Montana Kids Eligibility

The Combined Health Information and Montana Eligibility System – Enterprise Architecture (CHIMES-EA) was implemented in November 2012 as the system to manage the eligibility for these programs. Applicant data is entered once and the system executes multiple, complex rules for each program to determine eligibility and benefit amount. Since implementation, the system has been the focus of legislative committee meetings and reports.

Due to the complexity of the system and inherent risk of these public assistance programs, our audit was purposed with

reviewing processes in place to ensure the system is functioning according to policy and regulations and monitored for efficiency. We also reviewed processes that address and resolve system issues and monitor user access, as well as conducted a survey of system users. Without a properly functioning system, a process to monitor how the system is impacting the programs, or strong issue management and user access practices, data integrity and accuracy risks are increased.

Results

Audit work identified established processes for program metric review, but a lack of connection between program monitoring and system errors that could be influencing those metrics. Processes to identify and track root causes need to be strengthened to better understand how the system impacts the accuracy and timeliness of eligibility determinations and benefit calculations.

The survey of system users provided valuable information for the audit and pointed to a poor perception of system functionality, which contrasted department management's

(continued on back)

perception. Survey results were used throughout the report to support audit findings.

Audit testing and observations found errors within the system; however a process for issue management exists to address them. Audit work noted processes related to governance, prioritization of issues, addressing root cause, and documentation lacked controls to ensure effectiveness. The issue management process is not monitored effectively to ensure timely resolution of issues or that it meets the needs of users and the department.

Throughout the audit, documentation of the system, policy, and procedures involving system management were noted as incomplete, out-of-date, or did not exist. Processes to ensure completeness and accuracy and review this documentation need to be strengthened.

Audit work noted a process for granting, updating, and reviewing access of individuals. However, strengthening the review of access to system databases and privileged functions and monitoring activity will increase data integrity for the program.

Recommendation Concurrence	
Concur	17
Partially Concur	0
Do Not Concur	0
Source: Agency audit response included in final report.	

Chapter I – Introduction

Introduction

The Human and Community Services Division (HCSD), within the Department of Public Health and Human Services (department), manages public assistance programs for the state of Montana. The programs include:

- ♦ Supplemental Nutrition Assistance Program (SNAP)
- ♦ Temporary Assistance for Needy Families (TANF)
- ♦ Medicaid Eligibility
- ♦ Healthy Montana Kids (HMK) Eligibility

The Combined Healthcare Information and Montana Eligibility System – Enterprise Architecture (CHIMES-EA) is the system that manages eligibility and issues benefits for these programs for over 125,000 clients across the state. The system allows for various aspects of client data to be entered in a central location and then determines eligibility for all programs to streamline the process and issue benefits as necessary. It manages these processes and assists in other daily tasks for almost 1,000 users across the state.

The department relies on a contractor for development and maintenance of CHIMES-EA. The contractor was hired in 2010 for development, implemented CHIMES-EA in November 2012, and has been maintaining the system since then. Since implementation, the system has been the focus of legislative committee meetings, reviews, and reports. This, combined with system complexity and an inherent risk within public assistance programs, warranted an audit of how the system is functioning.

Background

Prior to the current system, The Economic Assistance Management System (TEAMS) was used for determining eligibility for each program and required a more manual process. The implementation of CHIMES-EA added automated benefit calculation through a new rules engine in a single, web-based system. The rules engine contains and executes the business rules for each public assistance program. In addition, functionality to support fiscal operations required by SNAP and TANF was added. This functionality, known as the Shared Fiscal Services Layer, is a single financial application that communicates payment information to the Statewide Accounting, Budgeting, and Human Resources System (SABHRS) to issue benefits. CHIMES-EA does not issue money to clients. Medicaid and HMK eligibility had been managed in a separate system, but were recently added to CHIMES-EA in spring of 2015.

Audit Scope and Objectives

Our audit focused on CHIMES-EA functionality for SNAP and TANF. During our audit, the Medicaid and HMK eligibility programs were being migrated into the CHIMES-EA system from the previous system, so its functionality was not reviewed. However, many of the system processes we reviewed are shared across all public assistance programs, so our testing has applicability to the Medicaid portion of CHIMES-EA. We also reviewed controls for issue management and user access and monitoring of the entire system.

We developed four audit objectives, listed as follows:

1. Determine if the agency is effectively monitoring the system.
2. Determine if business rules are executed within the system according to policy.
3. Determine if controls exist to ensure the effectiveness of issue management.
4. Determine if controls exist to ensure data integrity.

Methodology

CHIMES-EA is not a fully-automated means of determining eligibility and issuing benefits for public assistance programs; the system stores and processes information, but eligibility determinations and benefit calculations have to be reviewed by an individual before being authorized. Because of this, there is both a system control, the automatic eligibility determination and benefit calculation, and a manual control, the person reviewing the case. We reviewed how the system functions and how the department controls the system to ensure benefits are as accurate as possible.

Methodology included the following:

User Survey: We conducted a survey of users with access to CHIMES-EA. The survey provided information that will be addressed throughout the report. The list of survey questions and summary responses can be found in Appendix A. The survey was sent to 894 users with 512 users responding. These users represent various roles that work with the system including:

- ◆ Office of Public Assistance (OPA)
- ◆ Work Readiness Component (WoRC)
- ◆ Child Support and Enforcement Division (CSED)
- ◆ Internal Audit
- ◆ Management and Central Office

Interviews: Discussion with various users and managers of the system. Individual staff include:

- ♦ Central Office
- ♦ Project Management Bureau
- ♦ OPA
- ♦ CSED
- ♦ Quality Assurance Division
- ♦ Department of Labor and Industry

Site Observations: We visited four OPA offices to discuss the system with users and observe how users interact with it on a daily basis. OPAs visited were:

- ♦ Helena
- ♦ Missoula
- ♦ Billings
- ♦ Butte

Comparison to Industry Standards: We compared various processes to industry standards. Industry standards used include:

- ♦ Control Objectives for Information and Related Technology (COBIT) – Standards for Information Technology (IT) management and governance based on the consolidation of more than 50 IT good practice sources published by various international standards bodies, governments, and other institutions. These standards outline control practices to reduce technical issues and business risks.
- ♦ National Institute of Standards and Technology (NIST) – Provides a catalog of security and privacy controls for information systems. Montana State policy requires the use of NIST as guidance for security risk management and has established baseline security controls from NIST.
- ♦ Information Technology Infrastructure Library (ITIL) – A set of standard practices that focuses on aligning IT services with the needs of the organization and its users.

System Testing and Observation: Within a test system of CHIMES-EA, we created applications, entered test information, and evaluated how the system responded. We also viewed data and cases within the actual system, but did not have access to enter, change, or process any cases.

Reports: Reports were reviewed to provide information relating to the audit objectives.

Report information included:

- ♦ Issue Management
- ♦ User and Contractor Access
- ♦ Overpayments
- ♦ System Testing

Documentation Review: Our audit reviewed documentation depicting system design, expected functionality, and processes involved in managing the system.

Documentation included:

- ♦ Business Rules: For our audit, we judgmentally selected and reviewed business rules related to two areas: how eligibility and benefit calculations are determined and how correspondence is triggered to be sent to clients. Specific areas for eligibility and benefit calculations included nonfinancial decisions, authorizations, and business rules to calculate benefit accounts.
- ♦ Interfaces: Detailed design documents that define when interfaces are supposed to occur, what information is transferred and the format, and how information will be monitored to ensure the interface is working.
- ♦ Benefit Discrepancies: Documentation of the process to manage discrepancies and how the system determines a discrepancy.
- ♦ Issue Management: Documentation of the process and key points within the process including: testing, department approvals, and issue classification.
- ♦ Department Procedures: Documentation for procedures within the department to manage the system, including policy and user guides for the system, and user access procedures.

Management Memorandum

A management memorandum is a verbal or written notification to the agency for issues that should be considered by management, but do not require a formal agency response. We issued a management memorandum to the department regarding development of a plan to convert data still used within the previous system, TEAMS, into a sustainable, cost-effective source.

Overall Conclusion

The CHIMES-EA system is largely functioning as expected with regard to client analysis and the issuance of benefits. However, the department needs to make improvements in several areas to increase the system's accuracy and efficiency. These include strengthening a number of processes for monitoring, reviewing, and documenting system performance; improving the identification, prioritization, and repair of system defects; developing a process to review certain benefit overpayments;

improving employee training and communication; and strengthening review of user access to the system. This report addresses our findings in the following chapters:

- ◆ Chapter II - Performance Monitoring
- ◆ Chapter III - System Functionality
- ◆ Chapter IV - Issue Management
- ◆ Chapter V - User Access and Monitoring
- ◆ Chapter VI - Documentation

Chapter II – Performance Monitoring

Introduction

Performance monitoring is the process of supervising progress to ensure an organization is on-course and on-schedule in meeting objectives and performance targets and metrics. This includes application monitoring and program monitoring. Application (system) monitoring is a process that ensures that a system performs in an expected manner. Program monitoring does the same, but ensures that the program, in this case public assistance, is performing in an expected manner. The Combined Healthcare Information and Montana Eligibility System – Enterprise Architecture (CHIMES-EA) is used to support the public assistance programs, so how the system performs affects the performance of the programs. Our first audit objective was to determine whether the Department of Public Health and Human Services (department) is effectively monitoring the performance of the CHIMES-EA system, which includes understanding how the system impacts program metrics.

Industry standards indicate a strong performance monitoring process includes:

- ♦ Specific goals for related metrics
- ♦ Continuous, consistent, and timely review and communication of those metrics
- ♦ Root cause analysis of identified issues

Strong performance monitoring practices help ensure a system is operating as intended and establish performance baselines to be used in future planning. They also provide reliable information to understand how the system is affecting program metrics. A metric is a quantifiable measure that is used to track and assess the status of a specific process. Metrics are used to drive improvements.

Performance Monitoring Processes

Metrics used to determine the success of the public assistance programs are:

- ♦ **Timeliness:** Benefit application processing time and number of pending applications.
- ♦ **Accuracy:** Benefit amount and number of overpayments and underpayments.

While specific goals have not been established, there are processes and tools in place to monitor timeliness and accuracy of the program.

- ♦ **Supplemental Nutrition Assistance Program (SNAP) Quality Control Review:** This is a federally mandated review completed by a separate division within the department. Independent reviews are conducted based

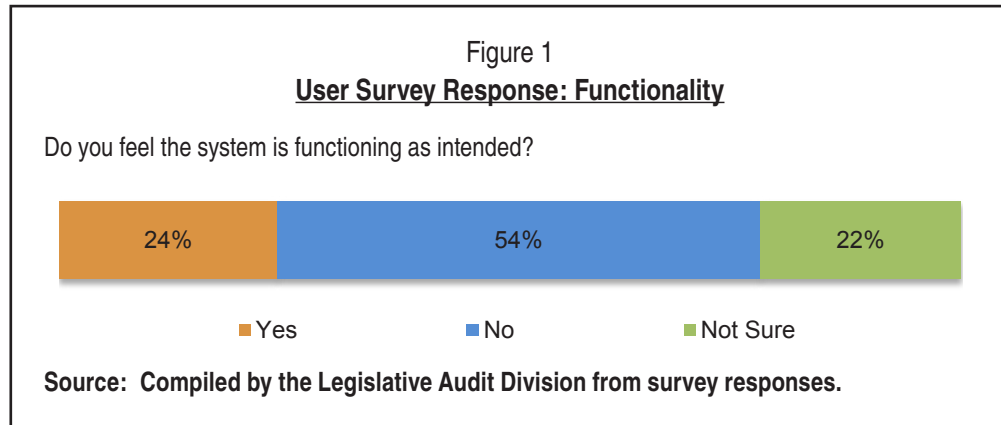
on a federally approved sample of SNAP cases that were approved or denied for benefits. These reviews are done monthly and sent to the federal Food and Nutrition Service (FNS) for a secondary review. This information is used for federal grading of states' SNAP programs based on timeliness and accuracy.

- ♦ **Temporary Assistance for Needy Families (TANF) Quality Control Review:** Department policy describes a review of TANF cases similar to that of SNAP. There has been no federal requirement for this type of review since 1996 when TANF was created; however, the department has a process for internal review of cases. This process includes randomly selecting cases for each Office of Public Assistance (OPA) manager to review monthly. The review includes all public assistance programs within the case.
- ♦ **Business Intelligence Tool:** This tool was developed to provide various metrics and reports to help manage SNAP and TANF. These reports include drill-down capabilities for specific information as well as macro-level classification like region, office, and time frame. The department also plans to implement a dashboard within this tool that will bring the key metrics for the program and system together to assist in decision making and monitoring.
- ♦ **Application Monitoring:** The department receives various information about system performance and availability. This information covers web service response times and availability, database traffic, login requests, and disk space and memory usage.

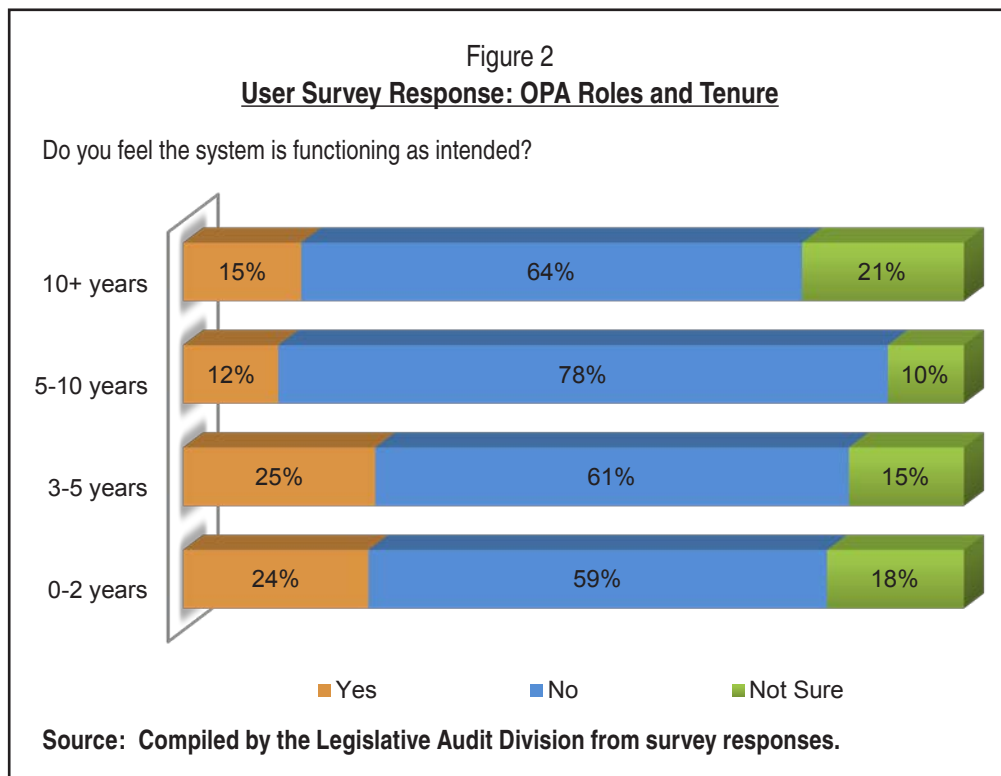
Perception of System Functionality

Part of system monitoring is understanding if the system is working as intended (functionality). Aside from reviewing metrics, our audit work included a web-based survey where users and central office staff were asked to provide their perceptions of system functionality. During interviews with central office staff, senior officials indicated the system is working as intended. This position has been reiterated in hearings and committee meetings. They believe the majority of program issues are related to user workload and business processes, not the system.

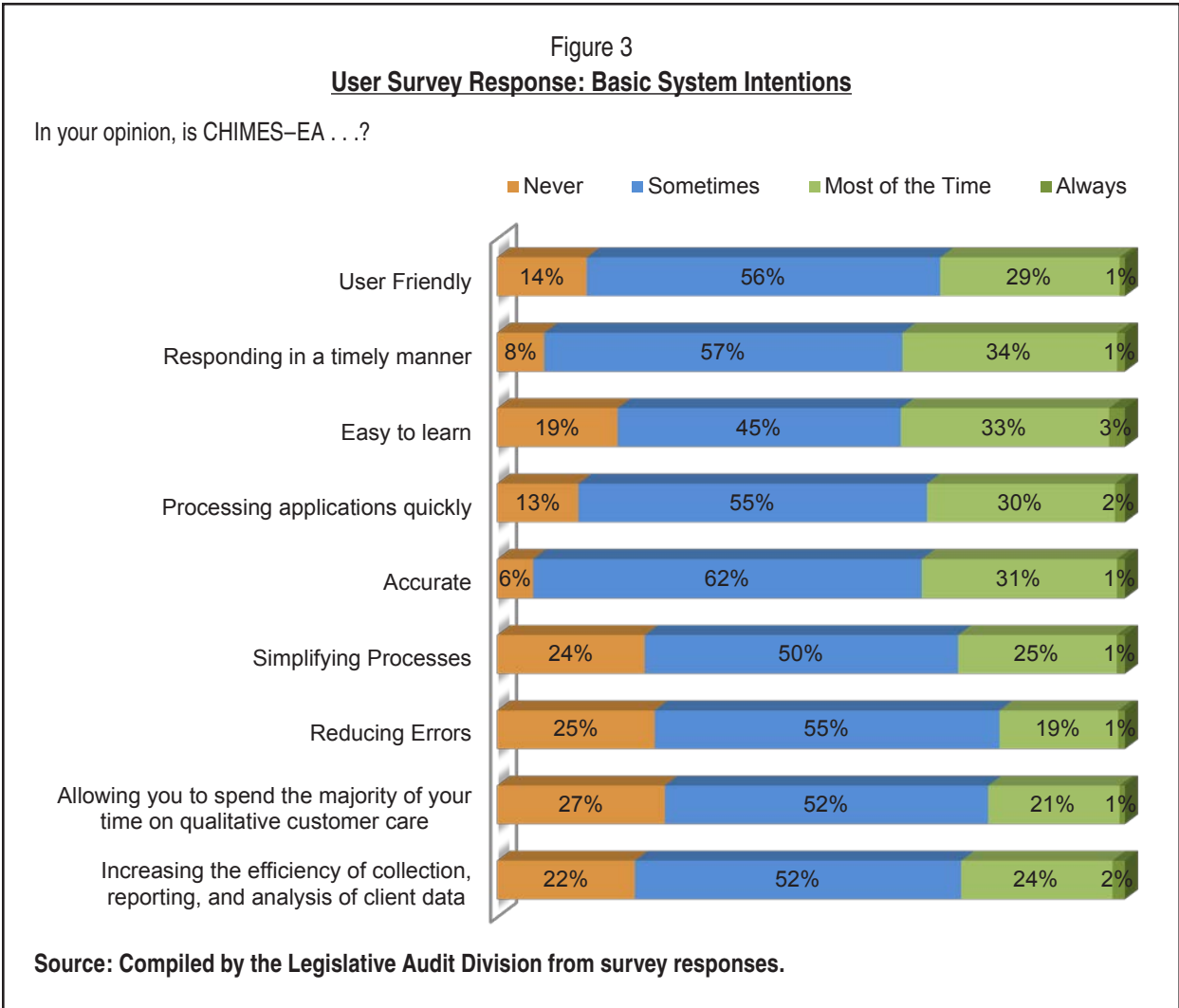
The majority of respondents provided a different opinion than central office staff in relation to system functionality, shown in Figure 1 (see page 9). The majority of respondents are also users who work in the system for more than five hours a day. Their comments indicate the system is contributing to program and workload issues.



We reviewed this information further to determine if this opinion was limited to users with knowledge of the previous system, decommissioned two years prior to the survey. When combining OPA eligibility roles and supervisor roles, perception worsens with higher tenure in (shown in Figure 2). However, people with a few years of experience in the old system and people with no experience in the old system also indicate the system is not functioning as intended.



Results show respondents feel the system is inconsistent in how often it performs basic system requirements as well (shown in Figure 3).



This difference in perception is a good example of why performance monitoring is important and valuable to an organization. Performance monitoring provides reliable and timely data that can be used to evaluate system and program operations. This information can then be communicated to staff to align perceptions with reality.

Improving Performance Monitoring Practices

The department has processes in place to gather data and monitor the program and the system, but the data is general and does not provide details to help understand if the system is functioning as intended. In addition, processes are not consistently followed. The department does not have established, specific goals for each program or the system as a whole. The only metrics indicating progress are federal SNAP program

goals of accuracy and timeliness. The department has no specific goals for what these metrics should be. As shown in the following table, federally reported SNAP metrics for accuracy and timeliness have been declining in recent years.

Table 1 Federally Reported SNAP Metrics for Montana				
Metrics	Timeliness	Accuracy		
Years	% of Cases Processed Timely	Under-Issuance Error Rate	Overpayment Error Rate	Combined Error Rate
2011	91.96%	0.82%	4.20%	5.02%
2012	93.29%	0.64%	2.07%	2.71%
2013	88.62%	1.43%	4.56%	6.00%
2014	NA	2.25%	5.00%	7.25%

Source: Compiled by the Legislative Audit Division.

These metrics are generated using a complex process with multiple aspects of a case reviewed and documented, such as the amount of the discrepancy, causes for the discrepancy, and nature of issues found even if there was no monetary impact. The review procedure is outlined in department policy to ensure it is conducted consistently and so that the information found can be used for improvements.

Through audit work, we found the department relies on reports and information from these reviews. These reviews provide information to assist the department in understanding the error rates and timeliness reports. One of the metrics determined through the review is cause. According to the reports, the main cause for errors the past three years is that reported information from the client is disregarded or not applied (25-30 percent of cases). System error causes for the same time period were 4-8 percent.

Root Cause Is Not Being Identified

Our review of this process and these reports showed that, while these are the documented causes, they are only the general causes for the errors, not the root cause. The question of why the information reported was disregarded or not applied, or if the system caused the delay, is not answered. This requires further analysis by the department to understand how the system is impacting these causes and metrics. Policy indicates review findings should be consolidated for secondary review by central office, but it is not happening consistently. Root cause is not being identified or tracked to understand if the system is or is not influencing the error rate. Policy also indicates

findings of this secondary review be communicated through the field for training and accuracy improvements.

Since there has not been a federal mandate to conduct TANF reviews, they have not been done consistently or according to policy. There was no clear understanding of how the TANF program is working and how the system is functioning to support the program. During the audit, the department implemented a new internal review process that is intended to have OPA managers review all programs for a sample of cases each month, including TANF. Review of this new process showed that root cause of errors, and if the cause relates to the system, is not identified or tracked.

Because of these deficiencies, there are no metrics to prove the system is working as intended. Without this type of information, the disconnect in perceptions of system functionality will continue. While management is working to create a management dashboard of various metrics to understand the success of the programs and assist in decision making, there are other areas of the performance monitoring process that could be strengthened to increase its effectiveness. By increasing analysis and tracking if the system is related to root cause, the department will better understand how the system is functioning, be able to isolate and correct issues more efficiently, and will be more informed in future system planning.

RECOMMENDATION #1

We recommend the Department of Public Health and Human Services improve performance monitoring processes by:

- A. *Defining specific goals relative to the system and each program managed by the system.*
 - B. *Defining and documenting a process to consistently review all data relative to these goals.*
 - C. *Reviewing information gathered to identify, document, and track system relation to root cause, and communicating results to users.*
-

Chapter III – System Functionality

Introduction

The Combined Healthcare Information and Montana Eligibility System – Enterprise Architecture (CHIMES-EA) is a complex system, integrating multiple business rules (decisions based on federal and state statutes and rules, and department policy) into one place to increase efficiency for the Department of Public Health and Human Services (department) and clients. Functions include:

- ◆ Eligibility determinations for:
 - ◇ Supplemental Nutrition Assistance Program (SNAP)
 - ◇ Temporary Assistance for Needy Families (TANF)
 - ◇ Medicaid and Healthy Montana Kids
- ◆ Benefit calculations
- ◆ Communication with other systems through interfaces
- ◆ On-going case management
- ◆ Staff workload management
- ◆ Reporting

Industry standards identify these types of functions as controls to ensure accuracy and integrity. As such, these functions need to be thoroughly understood and monitored to ensure they are working as intended and are effective.

CHIMES-EA manages over 900 business rules that define how the system should make decisions based on data entered by a user. This is the main function and most complex task required by the system, hence the need for a rules engine. Due to the magnitude of this system and the amount of rules that have to be executed within each program, there are inherent risks related to ensuring system processing is accurate. Strong controls need to be in place to mitigate these risks and ensure the integrity of the system is maintained.

Our audit reviewed three main areas related to system functionality. The following questions address the focus of work in each area:

- ◆ Is the system applying business rules accurately?
- ◆ Are interfaces controlled to ensure efficiency and effectiveness?
- ◆ How is the system used to control benefit discrepancies?

Our audit shows that processes involving system interfaces, benefit discrepancies, and addressing system issues when business rules are not demonstrated accurately need to be strengthened to improve system functionality. The following sections discuss our audit work and findings.

System Application of Business Rules

The first step in our review of system functionality was understanding if the system demonstrates business rules accurately. This was accomplished through our own testing, reviewing department testing procedures, and site observations.

We accessed the department's test environment and created our own scenarios to view how the system functioned. This process consisted of creating a scenario based on the policy or business rule we were testing and then inputting information to determine eligibility and benefit amount relative to the defined conditions. We then adjusted the scenario by changing information to see if the system acted accordingly for varying conditions.

Since our own testing in a test environment was unable to review certain scenarios that required historical data, we determined that it was necessary to observe how users manage cases in production and witness specific system functions in a live environment. We visited Office of Public Assistance (OPA) locations to discuss system functionality, observe interaction and specific functions, and follow up with users on questions we had from our survey.

Testing System Functionality

Our test environment review focused on system demonstration of policy, not thoroughly testing the system functionality like testing conducted during development. We created 14 households that covered multiple types of family members, ages, and various other conditions pointing directly related to policy and business rule documentation that we reviewed. Based on the results of tests with these households, we limited our testing to just eligibility determination and benefit calculation policy.

Of the 14 households we created, 9 households were not functioning as expected due to various reasons. We identified instances where the system did not accurately execute policy. We also encountered inefficiencies in the process for entering information. CHIMES-EA was designed to lead users through a series of screens and multiple questions to enter client information and subsequently determine eligibility and calculate benefits. We identified scenarios where information that directly impacted the outcome of eligibility and benefit amount was not required by the system during data entry. This information may not be required for authorization of benefits, but

directly impacts the accuracy of benefits. During our testing, we had to go back and enter this information which created the inefficiency. A few of our test cases are described in Table 2.

Table 2
Auditor Test Scenario Results

Scenario	Expectations	Results
Single parent with 2 children applying for TANF. Oldest child turns 18 in month of application.	TANF benefits would be issued for household of 3 in application month and household of 2 for months after that.	Initial month was incorrectly denying oldest child.
Married couple with two children from other relationships (not siblings) applying for TANF.	Step parent income should be included as unearned income in determination and benefit calculation.	Adult income was not accurately calculated to determine TANF eligibility and benefit amount.
Single parent with 2 children applying for SNAP and TANF.	Child support should be included as unearned income in determination and benefit calculation.	Child support was not accurately calculated in income to determining benefit amount in either program.
Married couple with 4 children, dad's on strike, applying for SNAP and TANF.	TANF eligibility should be denied due to strike. SNAP eligibility should only be allowed if the family was eligible prior to the strike.	Multiple, unrequired fields had to be entered before the system would correctly determine eligibility based on policy. The single field asking if a person was on strike did not deny benefits.
Married couple with 3 children applying for SNAP and TANF.	If a rent expense is entered and all required fields are complete, rent will be included as an expense in determination and benefit calculation.	Rent was not recognized in expenses if a single, nonmandatory field is blank. The system does not force a "yes/no" answer.
Self-employed single parent with 3 children applying for SNAP and TANF.	Self-employment income should be included as earned income in determination and benefit calculation.	Self-employment income was not accurately calculated to determine benefit amount in either program.

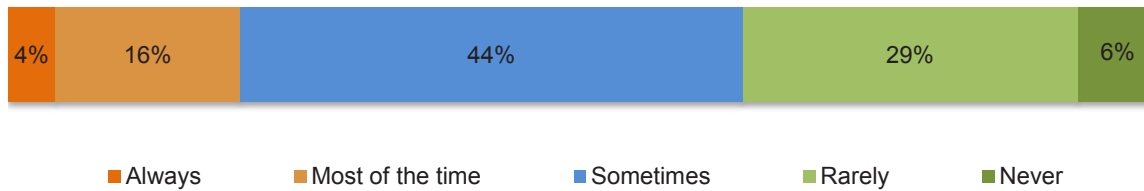
Source: Compiled by the Legislative Audit Division.

With errors noted in our initial testing, along with the need to review more complex cases with historical data, we decided to stop creating additional test scenarios and moved forward to site observations. These observations assisted in understanding if our experience was similar to that in the field and if the cases we created were rare occurrences.

Our site observations supported our own testing and gave us insight into other issues. These observations also coincided with our survey responses related to trust of system calculations. The following diagram, Figure 4 (see page 16), indicates users are still manually calculating benefit amounts to verify system calculations.

Figure 4
User Survey Response: Manual Budgets

How often are you creating manual budgets to verify CHIMES budgets?

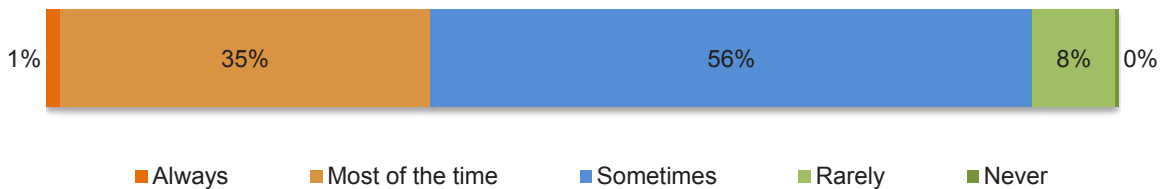


Source: Compiled by the Legislative Audit Division from survey responses.

Our survey also asked how often extra steps within the system are required to complete a case action. These extra steps can be a variety of manual actions taken by the user if the system is not functioning as intended. Figure 5 shows a more unfavorable response to the amount of cases requiring these extra steps.

Figure 5
User Survey Response: Workarounds

How often do cases require some kind of workaround due to a system issue?



Source: Compiled by the Legislative Audit Division from survey responses.

To better understand these graphs and the reasons for these results, we discussed issues and observed user interaction with the system. Table 3 (see page 17) indicates areas where policy was not executed accurately or the system was not functioning according to business rules from both our own testing and site observations.

Table 3
Areas with System Functionality Issues Found in Testing and Observations

Issue Area	Number of Issues Found	Examples
Eligibility Determination	2 - Testing	SNAP Able Bodied Adult Without Dependents program eligibility was not always restricted to three months within 36 month period.
	1 - Site	
Benefit Calculation	3 - Testing	SNAP not including TANF grant in unearned income when TANF grant was overridden.
	2 - Site	
Data Entry/ User Interaction	4 - Testing	Enrollment status is a required field for authorization but is not marked as such during data entry. The user has to go back to fill out the status for each person before benefits can be authorized.
	2 - Site	
Client Correspondence	1 - Testing	SNAP Simplified report notices with incorrect income information.
	1 - Site	

Source: Compiled by the Legislative Audit Division.

System issues impact the program in various ways, from inaccuracies to inefficiencies. They increase the amount of time it takes to complete a case due to correcting the system error, and increase mistrust of the system. Manual changes and other additional work increase the likelihood of future calculation issues requiring additional manual changes. A specific instance of inefficiency is related to alerts created by the system to direct the worker on cases that need to be reviewed. We found erroneous and duplicate alerts, as well as alerts that reappeared after being deleted. System alert issues increase work by requiring users to separate actual alerts from erroneous alerts, and increases the likelihood alerts may be ignored altogether.

Fixing System Defects Has Not Been Prioritized

During our fieldwork, there were approximately 800 identified defects within the system. A defect is terminology used for an instance where the system is not functioning as intended. Around half of these defects are eligibility and benefit calculation related. Of the eligibility defects, the majority are attributed to the recent migration of Medicaid into the system, while 25 percent are attributed to SNAP, TANF, or all programs. Due to the complexity of the system and amount of business rules managed, the amount of issues may not seem large. However, our concern is with how these issues are being addressed and understanding why there are still frustrations with a system that was implemented over two years ago.

Further review shows that in the system updates planned for 2015 (see Table 4 on page 18), twice as many enhancements are being addressed as defects. Enhancements are changes to the system that are not instances of incorrect system functionality. This

is disproportionate to the number of defects and enhancements that currently are pending for the system. As of the end of July 2015, there were 883 unresolved system defects and 391 pending enhancements.

Enhancements are sometimes necessary, especially when needed for federal regulation and policy changes, but allowing defects to go unfixed increases risks for the program and reduces efficiency for the users. The department is tasked with managing risk and balancing the priorities of addressing both defects and enhancements. By ensuring system defects that affect eligibility determination and benefit calculations are addressed promptly, the department can start to reduce the risk of inaccuracies caused by the system and reduce the backlog of defects. This will also reduce the risk that the issues are compounded when further enhancements or changes are made to the system or program.

Table 4 Planned System Updates for 2015 (as of May 2015)		
Update	Defects	Enhancements
7.1.0	3	4
7.2.0	5	4
8.0.0	35	124
8.1.0	3	3
9.0.0	43	41
10.0.0	3	3
Total	92	179
Source: Compiled by the Legislative Audit Division.		

RECOMMENDATION #2

We recommend the Department of Public Health and Human Services develop a plan to promptly address outstanding system defects that impact eligibility determinations and benefit calculations.

System Interfaces

Another step in our review of system functionality was reviewing interfaces between CHIMES-EA and other systems. Interfaces refer to the transfer of specific data between two systems to create efficiency and accuracy. Our work addressed the following question:

- ◆ Are interfaces controlled to ensure efficiency and effectiveness?

To examine interfaces, we evaluated logs that monitor how interfaces are working. We also discussed interfaces with users, both within and outside of the department, to understand details of what processes require information from CHIMES-EA. Testing

each interface was not feasible with the amount of interfaces and types of parties involved (state and federal). We identified 56 interface documents and reviewed 38 that were within the scope of the audit. These 38 documents included the following types of interfaces:

- ◆ Eighteen internal interfaces to other department systems
- ◆ Two interfaces to Department of Labor and Industry
- ◆ One interface each to the Office of Public Instruction, Department of Justice, and Department of Revenue
- ◆ Fourteen interfaces to federal systems

Interface Monitoring

Since testing interfaces was not feasible, we sampled interface logs from this year to review and understand what controls are in place to ensure interfaces are working and issues are identified. Interface logs contain information for each interface that can be used to track different metrics. Metrics could include the number of records sent through the interface, the number of records processed and rejected, or the number of records that matched a certain data set. The metrics vary depending on the purpose and nature of the interface, so documentation of these metrics is included in each interface's design document. Interfaces that are real-time, meaning the data exchange happens when the user requests it, are not monitored in these logs. The logs are meant to monitor interfaces that are a transfer of large amounts of data at one time, and usually done outside of normal work hours.

The process for interface monitoring is managed by the contractor. Contractor staff review interfaces daily and create various monitoring documents, including logs, documentation of any issues that occurred, and a summary. These documents are then stored in a system that is used to manage multiple project management processes. An email with the summary, noting either success or failure for each interface, is then sent to appropriate department staff.

The interface logs provide useful information; however, we identified issues within our judgmental sample of 17 interface logs. Seven interfaces were not monitored in the log on the days documentation indicated they should have run. We also noted that personally identifiable client information was recorded in two interface logs.

Of the seven interfaces that were not monitored, one was no longer in use. The department was unaware that personal client information was being recorded in the log. The logs are stored in an environment where users that have no business need for this information have access to the information. The department immediately removed this information from being logged when notified of the issue.

While monitoring responsibility is assigned to the contractor, the department is ultimately accountable for how the interfaces are working. The department needs to increase oversight and review of the monitoring process outside of the daily email sent by the contractor to ensure the control, in this case interface logs, is working effectively. Industry standards indicate strong oversight includes monitoring internal controls and evaluating effectiveness and efficiency. By increasing oversight of interface monitoring, the department will ensure the reliability of what is being reported by the contractor and reduce the risk of an ineffective control. This will also ensure information monitored in the interface logs is consistent with design documentation. Instances where data is being logged that is not needed, for example the personally identifiable information found in our review, will be identified as well.

RECOMMENDATION #3

We recommend the Department of Public Health and Human Services improve interface monitoring by:

- A. *Increasing oversight and review of the monitoring process.*
 - B. *Ensuring only necessary information is logged and only users with a business need can access logged information.*
-

Interface Functionality

During our review of interfaces and from our survey, we received varying statements on how interfaces were working. Survey responses varied from users that always use interfaces, to users who never use them or were not aware of or do not need to use the interface. Our survey and site observations also provided comments from users stating they do not use interfaces and would rather go directly to the source system to obtain or verify data. In addition, users state the information provided through interfaces is out of date, incorrect, or missing. Department management indicated all interfaces were working and usable within the system.

From our review of interface logs, we were able to determine that monitored interfaces were operational and logging data transfers, but this does not indicate the interface is functioning as intended. We reviewed help desk tickets (identified issues) regarding interfaces. We found 23 issues related to 13 of the interfaces we reviewed. While there is a process for managing issues, discussed in Chapter IV, we wanted to understand how issues are addressed with users receiving CHIMES-EA information.

In order to do this, we further reviewed the exchange of information between CHIMES-EA and the System for the Enforcement And Recovery of Child Support (SEARCHS). SEARCHS has the most interfaces with CHIMES-EA in regards to the following information:

- ◆ Child Support amount
- ◆ TANF Grant amount and client information
- ◆ Non-Cooperation with Child Support Enforcement Division (CSED)
- ◆ Out-of-State Child Support Benefits
- ◆ Referrals to CSED when a parent starts receiving TANF

Manual Processes Are Being Used for SEARCHS

In our review of SEARCHS we found there are manual processes in place to ensure proper management of cases due to interface issues, such as child support payment and TANF eligibility and payment information not being shared. According to CSED, the interfaces work some of the time; however, CSED staff are using manual processes more often than intended. Due to the number of issues with transferred information, the reason why the information did not transfer or was incorrect cannot always be researched by CSED staff.

These issues ultimately increase the risk that a parent may not receive the appropriate grant amount when receiving child support and TANF at the same time, which is against department policy. A parent is entitled to the greater of either the TANF or child support payment. CSED withholds the child support payment and passes on only the necessary amount if the child support payment is greater than the TANF grant. If a parent received both types of assistance in an amount greater than allowed, an overpayment should be established by the Office of Public Assistance (OPA). However, if the reason the error occurred was determined to be a system interface issue, by policy, the overpayment is not recouped. Thus reducing the amount of funds CSED receives and the amount of TANF grant money available for other needy families.

Industry guidelines suggest organizations maintain an understanding of the system and all users impacted by it by regularly meeting with business units, internal users, divisions, and other types of users to understand current business problems, process bottlenecks, or other constraints that need to be addressed. The department is aware of the issues with interfaces to SEARCHS and has help desk tickets identified. They have also held a meeting recently with CSED staff and the contractor to discuss these types of issues in detail. However, these meetings are not consistent and communication of progress outside of these meetings could be increased.

Specific interface problems should be identified and managed through the issue management process, which is addressed in Chapter IV. However, we found communication and collaboration need to be increased. By increasing communication with users relying on interfaces of CHIMES-EA information, the department strengthens its understanding of the entire system and how it is affecting all users. This increased awareness and communication, for both sides, increases trust in the system, efficiency of issue resolution, and builds relationships.

RECOMMENDATION #4

We recommend the Department of Public Health and Human Services strengthen interface controls by consistently:

- A. *Meeting with all stakeholders to document and review current issues.*
 - B. *Communicating with and updating stakeholders throughout the process.*
-

Benefit Discrepancies

The third step in understanding system functionality addresses the following question:

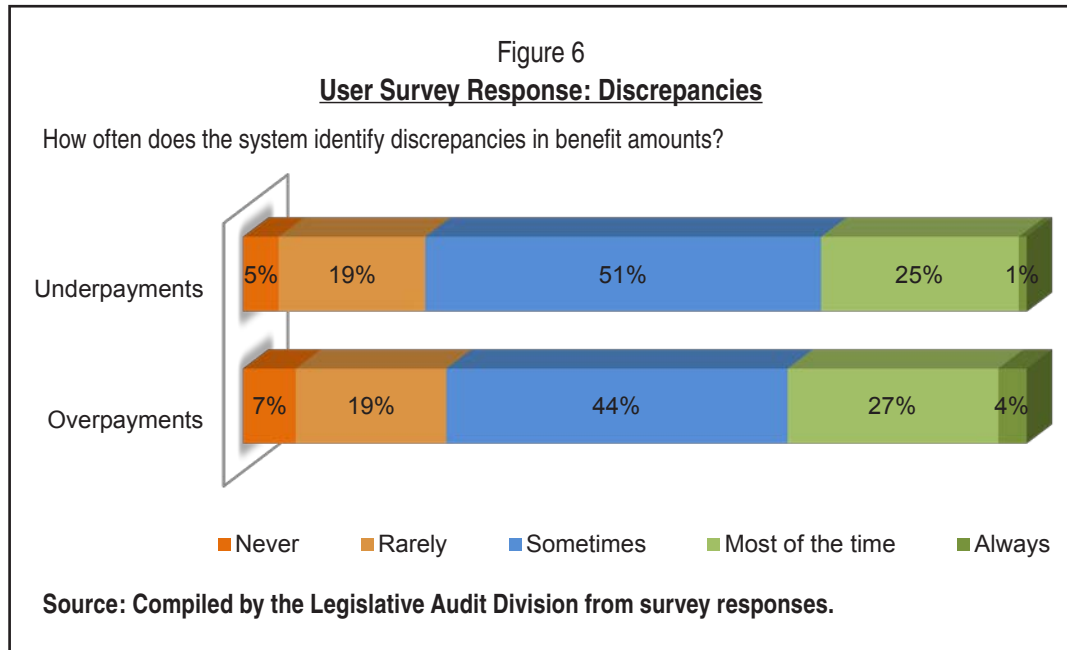
- ♦ How is the system used to control benefit discrepancies?

There are circumstances that create a discrepancy in the benefit amount authorized to be issued within the system, like client error or user input error. Strong controls related to how the system addresses discrepancies and how user procedures involving system discrepancies need to be established and followed to ensure benefits are paid according to policy.

Benefit discrepancies are considered either an overpayment or underpayment. If an underpayment occurs, a supplemental payment is issued within the system to make up the difference. If an overpayment occurs, a claim is established within the system and the recovery process is initiated. CHIMES-EA is designed to identify these discrepancies and suggest the correction for the user to authorize, but also allows for users to manually create supplemental payments and overpayment claims if the system does not identify them.

To review the discrepancy process, we evaluated system documentation and policy and gained an understanding of how the system is involved. We also asked users how they

feel the system was assisting in identifying benefit discrepancies. Survey results, shown in Figure 6, indicate that users are split on how well the system identifies discrepancies.



As shown in Figure 6, for both underpayments and overpayments, less than 35 percent of CHIMES-EA users think the system is identifying benefit discrepancies always or most of the time. A similar proportion believe the system is either rarely or never performing these functions effectively.

Benefit Discrepancy Policy

Policy clearly outlines rules for when overpayment and underpayment claims should be established and the rules that drive the procedures for how each situation should be handled.

Procedures for supplemental payments are handled within the OPA office in a process that only requires supervisor approval if it is over \$200. Overpayments include more controls and policy definition, such as supervisor approval for any claim to be established and an overpayment log to track supervisor reviews and approvals for central office review.

In our review of these processes, we found that overpayment logs, while maintained at the OPAs, are not being consolidated for central office review. The department is trying to reduce the use of spreadsheets and increase efficiency by moving this process into the business intelligence tool, so the spreadsheets were not being consolidated. Without this consolidation and review of potential overpayments (including denied overpayments), the department does not have the ability to gather valuable information.

Gathering this information is another resource for performance monitoring as well as a control to oversee the overpayment process. Information gathered in overpayment logs includes elements of overpayment situations that identify where a system issue suggested an incorrect overpayment, or a user suggested an incorrect overpayment. Both of these situations are important to understand system functionality and improve user training.

Adhering to policy and gathering the type of complete information captured on overpayment logs will assist the department in understanding where system controls can be strengthened in the benefit discrepancy process. The department will also be able to identify trends in overpayment causes that could imply a system issue or training issue.

RECOMMENDATION #5

We recommend the Department of Public Health and Human Services conduct a review of consolidated, statewide overpayment information, including potential overpayments, on a periodic basis.

Manually Created Overpayments

Our review of overpayments in the last two years, summarized in Table 5 below, indicates users are manually creating overpayment claims and denying most overpayment claims created by the system. Denied claims are claims that were created but not approved by supervisors. Pending claims are claims waiting for review by a supervisor.

Table 5
Comparison of Overpayment Claims in the Last Two Years

Source	Overpayment Status					
	Denied		Pending		Approved	
System	2,392	87%	2,818	86%	370	18%
User	362	13%	464	14%	1,691	82%
Total	2,754	100%	3,282	100%	2,061	100%

Source: Compiled by the Legislative Audit Division.

Overall, the system generated 60 percent of overpayment claims and users generated 40 percent of the claims. System-generated claims totaled \$1.8 million, whereas user-generated claims totaled \$2.5 million, and on average are higher overpayments than system-identified overpayments. Table 5 (see page 24) shows that 87 percent of denied claims were established by the system, while only 18 percent of approved claims were established by the system. The majority of approved claims were established by users, which total \$1.9 million.

These metrics, plus our survey information and site observations, indicate there may be issues with system functionality related to generating accurate overpayment claims. However, we were unable to verify this due to lack of complete system documentation. Metrics may also imply that system-generated overpayments are possibly disregarded by users due to lack of system trust.

Table 5 also shows that the majority of pending overpayment claims (yet to be approved) are system-generated. According to department policy the OPA has roughly three to six months, depending on when the claim is identified, to approve an overpayment. Of the 2,818 pending claims established by the system, 2,263 (\$575,000) are over six months old. We were unable to verify if all of the pending overpayments over six months old were valid or should have been denied. However, we did identify cases where staff noted the system-generated overpayment was incorrect, as well as cases that showed no reason for an overpayment to have been established. If these pending overpayments should have been denied, that increases the total number of overpayments created by the system and ultimately denied to over 5,000 in the last two years.

The department was unaware of these metrics or any causes for the amount of manual overpayments. If the system is establishing overpayment claims inaccurately, extra time to verify this and create manual overpayment claims must be completed by the user. This increases the amount of time to work each case and increases mistrust of system functionality. System-generated overpayment claims are an intended function of the system to control overall accuracy. As such, industry standards require the department monitor this control to understand its effectiveness. Monitoring will help identify:

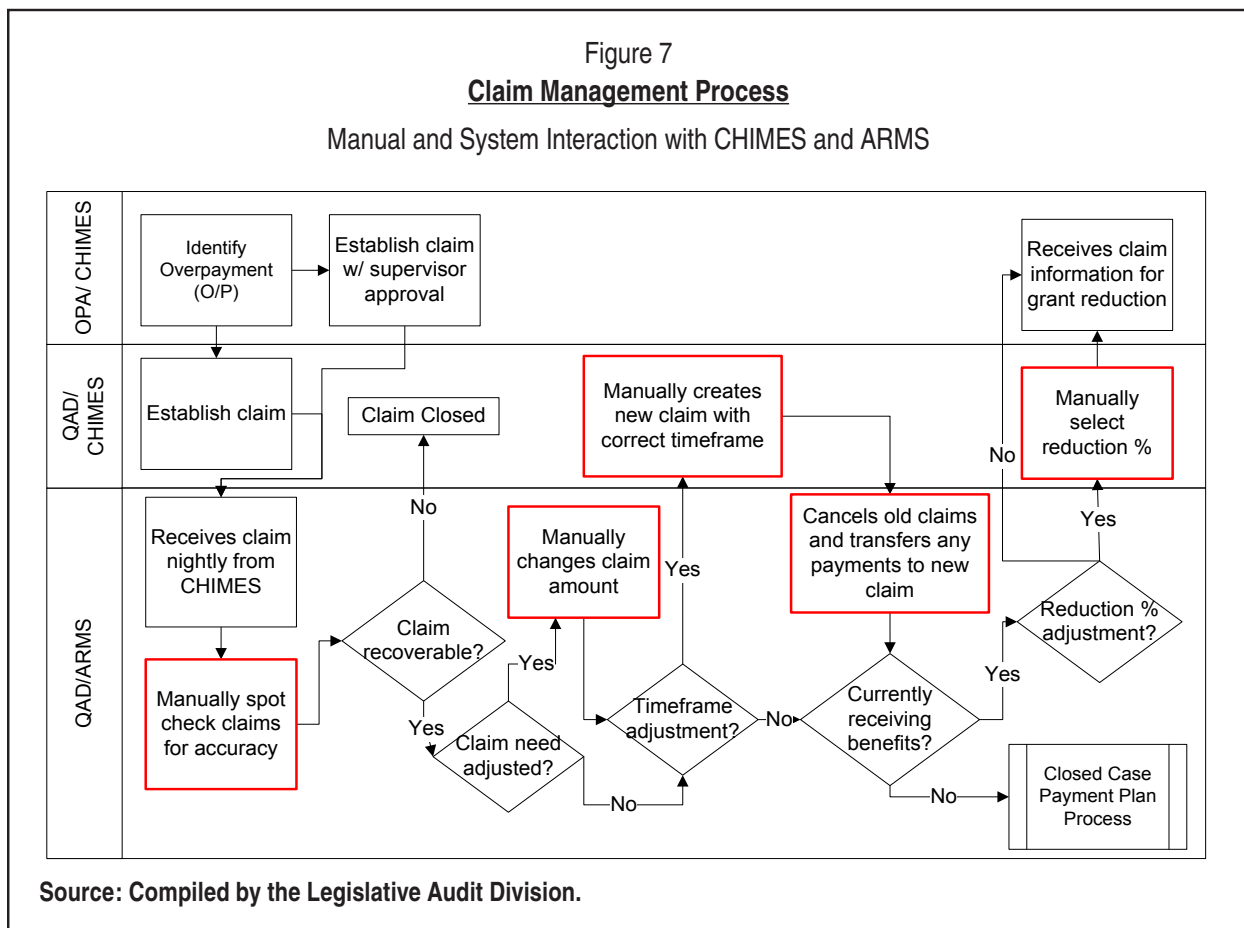
- ◆ Why system generated overpayment claims are denied or possibly ignored.
- ◆ Overpayment claims that were not approved in time.
- ◆ Opportunities for system improvements.

RECOMMENDATION #6

We recommend that the Department of Public Health and Human Services establish and document a process to review metrics related to the source of overpayment claims and address any identified system functionality issues.

Overpayment Claim Management Process

Once an overpayment claim is established, a process is followed until it is closed. This process involves two systems and divisions: CHIMES-EA in the Human and Community Services Division, and Accounts Receivable Management System (ARMS) in the Quality Assurance Division (QAD). Documentation of this process is depicted in the diagram below, with manual steps highlighted in red.



Overpayments are established and approved by a supervisor in CHIMES-EA and then transferred to ARMS to manage the account. Once the overpayment claim is transferred to ARMS, CHIMES-EA only receives updated claim amounts.

Changes to overpayments are sometimes necessary after more information is discovered or investigations are completed in the case of intentional program violations (IPV). The types of changes include adjusting the following metrics in a certain system:

- ♦ Adjusting the claim amount (ARMS)
- ♦ Adjusting the grant reduction amount if the client is still receiving benefits (CHIMES-EA)
- ♦ Adjusting the penalty percent for TANF in the case of an IPV (CHIMES-EA)

Manual Processes to Manage Overpayments

Currently, only a few users have access to make these changes within the system. However, we noted manual work being done that increases the risk of inaccuracy in two instances: changing the overpayment occurrence time frame and creating manual overpayment claims.

The process to change the overpayment occurrence time frame occurs when additional months need to be included in the claim, or the overpayment was established incorrectly as multiple claims for consecutive months instead of a single claim. In either case, the process requires the consolidation of multiple claims that includes manually creating and inactivating claims, manually transferring payments to new claims, and waiting for systems to update each other over a three-day span.

Risk exists when multiple claims are established for consecutive months. Policy states instances like these should be established as one claim. The system allows for claims to be set up at the month level because it is necessary, but this also makes it possible for an uninformed user to incorrectly set up an overpayment claim. There are reasons why it is important to set up the claim across all necessary months instead of for each individual month including:

1. Each claim is a separate account in ARMS, so multiple claims means more accounts to manage in the system, and
2. SNAP overpayment policy states that if a claim is less than \$125 on a closed case, it is not recovered. For example, if multiple claims were set up for \$100 and not consolidated, this overpayment would not be recouped, when in fact, it should have been.

Overpayments are reviewed by supervisors, but our review identified instances where these types of claims are not always identified and corrected. We reviewed a CHIMES-EA report of all overpayment claims, denied or approved by supervisors, in the last two years. The report was sorted to identify claims established in consecutive months. This review was not going to identify all consecutive claims, but did provide

some cases with incorrect claims established. The data showed that at least 91 claims, related to 24 cases, had overpayment claims set up incorrectly in this manner. Of these 91 claims, 11 had been denied by the supervisor and recreated correctly, 6 claims were identified and consolidated after they were approved, and the remaining 74 claims were approved with the incorrect established time frame. None of these cases were overpayments established on closed cases, so we are unable to determine if overpayment claims were not recovered when they in fact should have been.

By continually reviewing these processes, the department can increase awareness of how users interact with the system, as well as identify risks in manual processes and areas where controls need to be strengthened, such as user training for establishing overpayment claims.

RECOMMENDATION #7

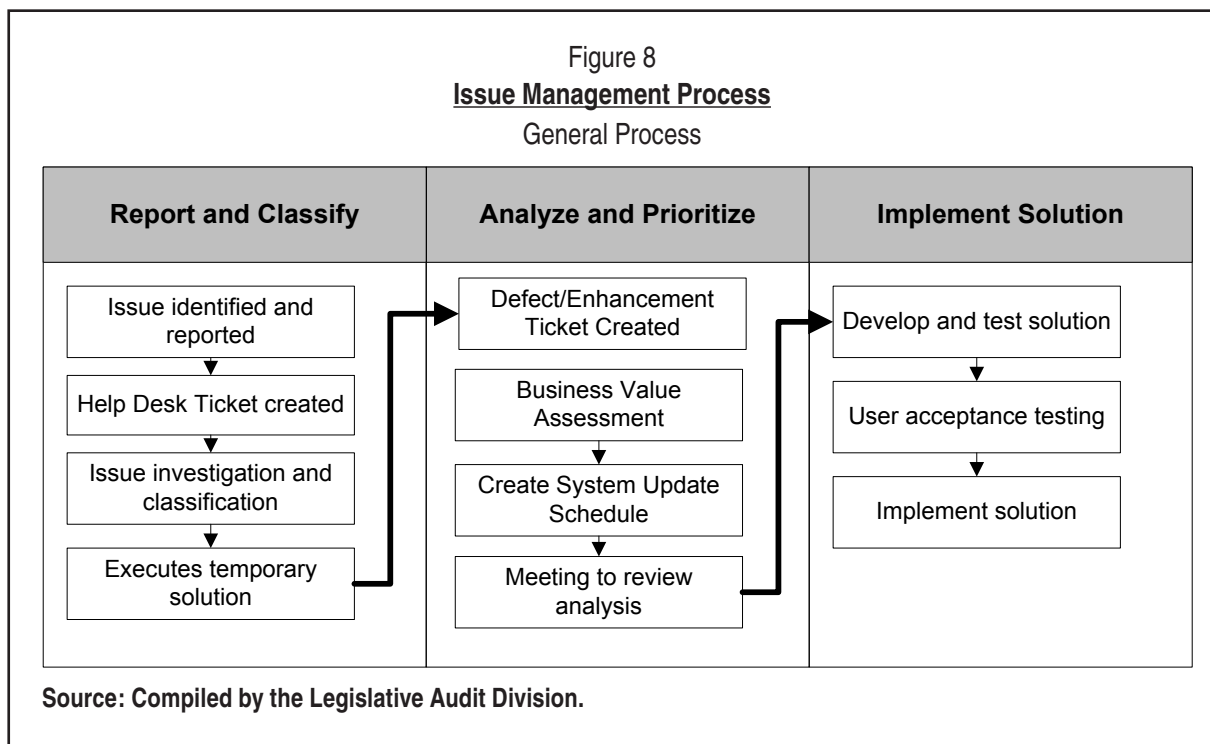
We recommend the Department of Public Health and Human Services:

- A. *Review claim management processes and controls to continually identify risks and opportunities for automated improvements to controls and efficiencies.*
 - B. *Ensure all users are trained appropriately to set up and approve overpayment claims according to policy.*
-

Chapter IV – Issue Management

Introduction

Issue management is the process for how system enhancements, defects, problems, errors, or anomalies are identified and addressed. The issues management process needs to be subject to well-defined procedures and close management supervision to ensure efficiency and reduce costs to the Department of Public Health and Human Services (department). The department uses a single system to manage this process. Issue management for the Combined Healthcare Information and Montana Eligibility System – Enterprise Architecture (CHIMES-EA) can be divided into three parts: identify and report the issue, analyze and prioritize the issue, and implement a solution to the issue, as shown in Figure 8.



Strong issue management controls include detailed, up-to-date documentation of procedures, oversight and involvement to ensure priorities are addressed appropriately, and monitoring of efficiency. Industry standards require these types of controls over issue management to:

1. Ensure standardized methods and procedures are utilized for efficient and prompt response, analysis, documentation, ongoing management, and reporting of issues.

2. Increase visibility and communication of issues to business and information technology (IT) support staff.
3. Enhance business perception of IT through a professional approach in quickly resolving and communicating issues when they occur.
4. Aligning issue management activities and priorities with those of the business.
5. Maintaining user satisfaction with the quality of IT services.

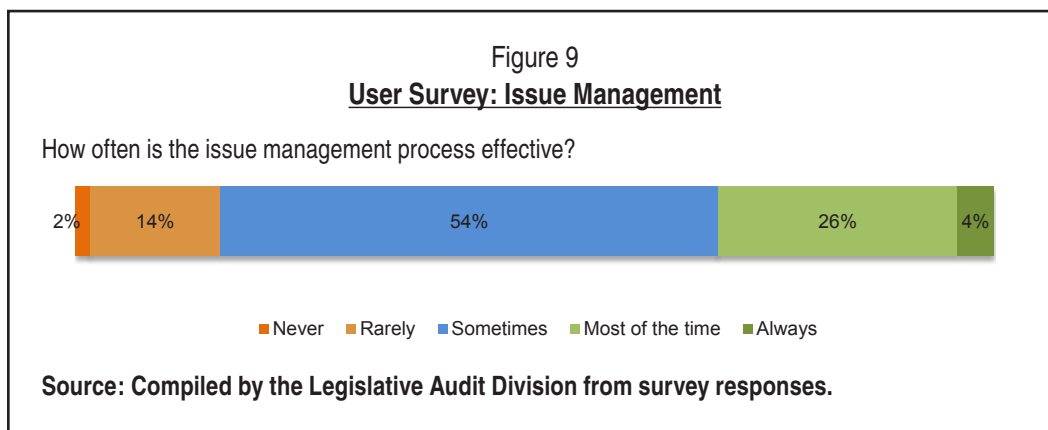
As part of our audit, we reviewed issue management controls the department has in place. Our audit reviewed these specific areas of control:

1. Does the process align with industry standards?
2. Is the process monitored for effectiveness?

We obtained input from department staff to understand the process and reviewed how the process was managed within the issue management system. This assisted us in identifying differences between current documentation and what was actually happening. We then compared these findings to industry standards. From our review, we found that the process aligns with industry standards expect for how it is monitored for effectiveness and documented. Documentation is discussed in Chapter VI.

Monitoring Issue Management for Effectiveness

Our survey results showed that over half of the respondents felt issue management was effective some of the time, as show in Figure 9. Our audit work focused on understanding why there were not more users who responded favorably to this question.

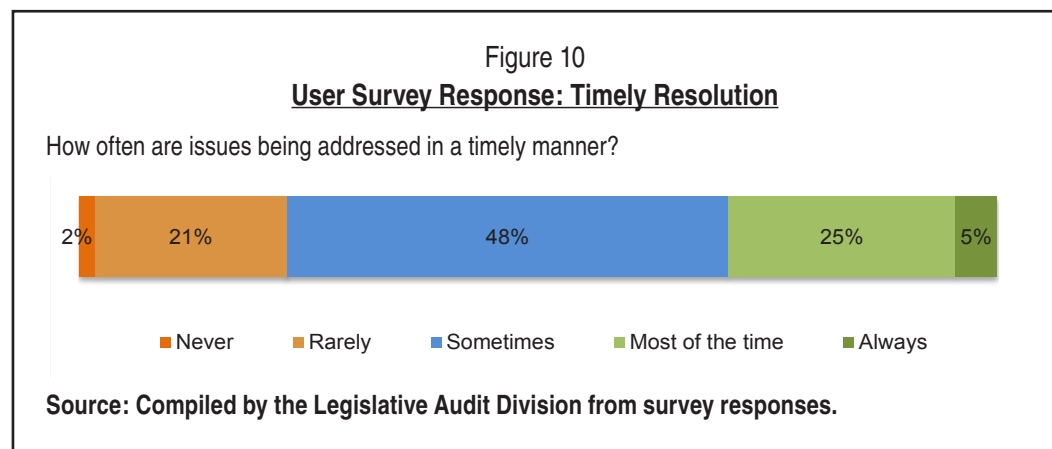


Monitoring the effectiveness of issue management ensures the process is meeting the needs of users, clients, and the department. It also allows the department to identify areas of improvement to strengthen the relationship with users. We reviewed three aspects of effectiveness:

- ♦ **Timeliness:** Timely resolution of issues is not only more cost effective, but ensures disruptions to productivity are minimized and the use of temporary workarounds is limited.
- ♦ **Root Cause Analysis:** Root cause analysis is important so the issue does not persist and potentially cause multiple iterations within the process. This saves the department time and money, as well as reduces user frustration with encountering an issue multiple times.
- ♦ **Communication:** Communication is important so users understand time frames for temporary workarounds and to ensure users are aware of actions taken and plans to prevent future incidents from occurring. This also instills trust with users throughout the state who may not have much direct contact with system managers.

Timeliness of Issue Management

When asked if users felt issue management was timely, responses were split between favorable and unfavorable, while the majority responded Sometimes.

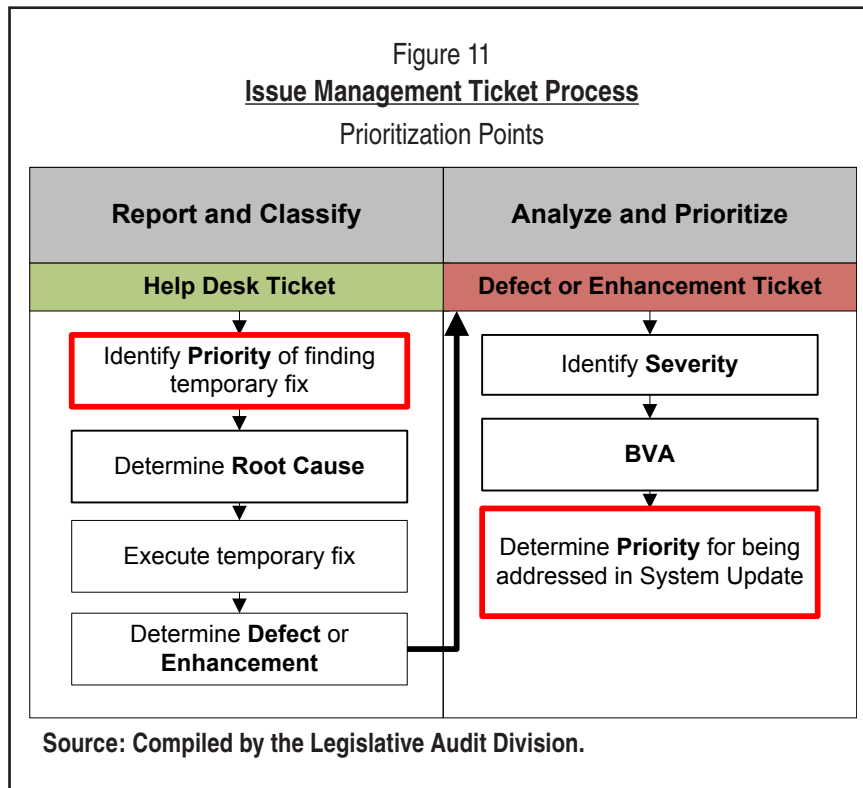


We ran reports within the issue management system for the age of defects, or system issues, that were identified but not yet resolved to understand how it coincided with survey responses. This report indicates the average age of defects yet to be resolved is 160 days.

When asked about this, the department noted that the number may be misleading because there are multiple levels of priorities within the group of open defects. Issues that are lower priority and do not need to be addressed immediately are offsetting the issues that are being addressed sooner. According to the department, there is also a backlog of defects and enhancements that need to be cleaned up. The average age of defects could be thrown off by duplicates or issues that have already been resolved but are not marked so.

Prioritization Within Issue Management

To understand the age of defects, we reviewed the prioritization process and how effective it is at increasing the efficiency of issue management. There are two stages in which priority is determined for issues within the system, as shown below in Figure 11. The nature and details of the issue determine the priority of the help desk ticket. The outcome of the Business Value Assessment (BVA) determines the priority of the defect or enhancement.



Help Desk Ticket: During our fieldwork, the level of prioritization utilized for help desk tickets was critical issuance. Critical issuance tickets need to be addressed within 48 hours because the process for issuing benefits is halted. If an issue was not categorized as critical issuance, it was left blank. During fieldwork, the department identified this as an issue and was starting to revise this process.

Defect or Enhancement Ticket: These tickets are given priority levels that include critical, high, medium, low, and no priority. The BVAs for defects and enhancements are used to determine these priorities, but reports show that only 23 percent of enhancements and defects have been assessed. At the time of our review, 466 BVAs were completed and 1,526 were incomplete.

These areas were identified as bottlenecks in the process: analyzing root cause of the help desk ticket, and completing the BVA for the enhancement and defect. The BVA consists of 15 questions, ranging from federal fiscal impact to public perception and number of clients impacted. This assessment is thorough and includes discussion between the contractor and the department to finalize, which takes time. Issues outnumber the amount of staff available to spend time analyzing them thoroughly, and without priorities, this work is not focused to areas of need.

Both of these processes are necessary for issue management. However, without appropriate priority levels and the completeness of prioritization, the benefit of prioritization is lost and efficiency of the process is hindered. Monitoring the age of help desk tickets with only two categories for priority and monitoring the age of defects when they have not been prioritized does not provide useful information for the department. The limited priorities and unprioritized defects also do not provide a helpful direction for what tickets to address first. The department recognized this issue as well and is starting to implement more priority levels for help desk tickets.

Industry standards state all enhancements and issues be properly prioritized. Prioritization allows for better planning and strategy to complete work more efficiently. By ensuring priorities are assigned and accurate, the department will be able to monitor the age of tickets and timeliness of the process based on each priority level.

RECOMMENDATION #8

We recommend the Department of Public Health and Human Services ensure all current help desk tickets, enhancements, and defects have been prioritized.

Departmental Governance of CHIMES-EA

The department does not monitor timeliness of issue management. Monitoring is vital to ensuring the process is efficient and timely, especially when the issue management process is a coordinated effort between the department and a contractor. Through our review, we found the department relies on the contractor for these key processes:

- ◆ Manage documentation
- ◆ Help complete BVAs to prioritize defects and enhancements
- ◆ Set the baseline for what issues are addressed in each system update

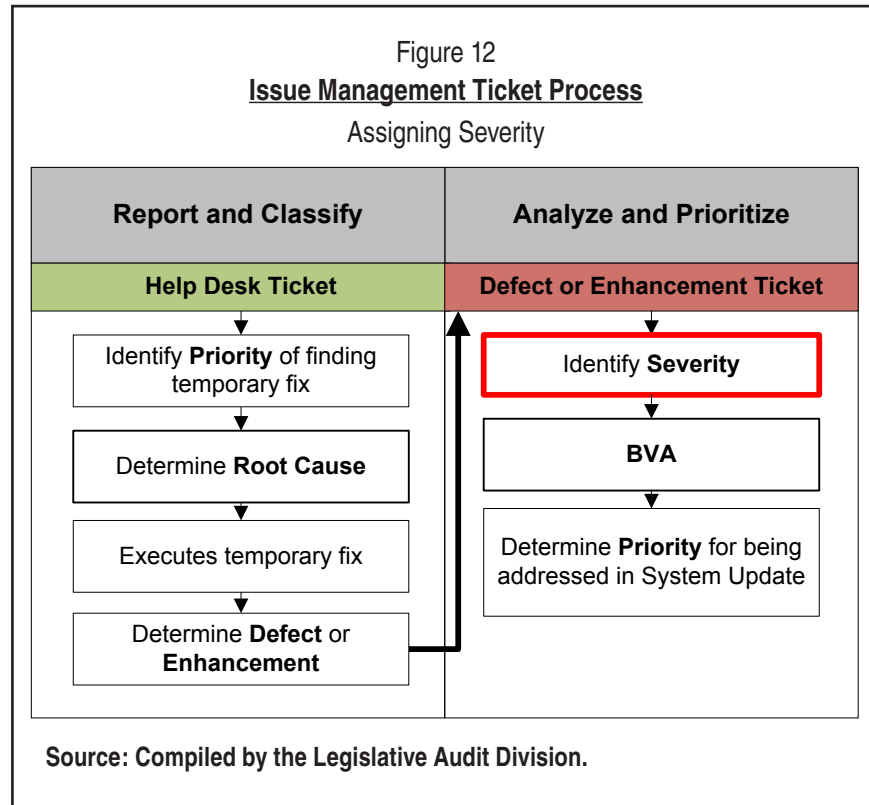
The current process has points of contact between the department and the contractor at Change Control Board meetings and quarterly status meetings when the contractor reports progress and expected dates for department testing of system updates. They also communicate individual issues throughout the reporting and classification stage.

Industry standards state that if business need requires a government agency to rely on a contractor, an effective compliance monitoring process must be established by the agency. It may be necessary for the contractor to assist, or even manage, certain processes. If this is the case, then strong oversight within the process, along with establishing clear performance benchmarks and standards for the contractor, must occur for maintaining and improving the system. Without these controls, the contractor may not act in the best interest of the department. In the case of CHIMES-EA, impacts can occur during critical points of the process:

1. Determining whether an issue is an enhancement or defect.
2. Determining priority and timing of the issue being fixed.

The agreement between the department and contractor assists in governance of the process. It outlines performance standards for timeliness of issue management based on the severity of the issue. This document also outlines monetary penalties if those standards are not met. The performance standards require the contractor create a plan of resolution within a certain time frame for each severity level. However, it does not address a time frame for implementing a solution for the issue. A recommended resolution and a plan to correct the issue are all that is required.

When reviewing the current process, we noted that it does not classify the severity level of an issue until it is determined to be a defect or enhancement, as shown in Figure 12 (see page 35). This indicates an issue has to go through the help desk ticket process before it is given a severity and can be monitored against the performance standard.



Our review also noted the department has not been tracking timeliness in regards to severity and the performance standards. The department states it has not had issues with these standards or had to enforce them, but was unable to verify this through documentation. Our review of issue management system reports shows the age of unresolved, high severity defects is 200-250 days. With standards that require the contractor to provide a plan and not a resolution within an established time frame, contractor performance related to efficiency cannot be enforced. Without this pressure, the average age of unresolved defects and efficiency of the issue management process may not improve.

To govern the process and ensure it is efficient, industry standards require an agency set benchmarks for the time frame of solutions and monitor against those benchmarks. By establishing performance benchmarks for the contractor and monitoring the contractors performance in critical areas, the department can confirm the contractor is meeting business needs for assigned responsibilities. This will allow the department to govern the process and enforce penalties to ensure the process is working efficiently.

RECOMMENDATION #9

We recommend the Department of Public Health and Human Services establish, monitor, and enforce benchmarks for:

- A. Analysis and prioritization of help desk tickets, defects, and enhancements.*
 - B. Time frames for implementing solutions.*
-

Root Cause and Classification of Issues

We reviewed help desk tickets and defects, ran reports within the issue management system, and discussed root cause analysis with department staff. Root cause analysis helps to classify an issue initially: training issue, system issue, enhancement, etc. Classification helps understand what the next steps are in solving it. These classifications are also used in dashboards within the issue management system for the department to identify training issues as compared to system issues and enhancements.

This process requires the help desk ticket to be linked to a defect if the system is the root cause of the issue. In instances of training issues or policy questions, a defect would not exist to be linked to the ticket. The number of help desk tickets linked to a defect ticket is important when completing the Business Value Assessment (BVA) and prioritizing the defect. Our review of help desk tickets through site observations and our own testing showed that tickets were not always linked to defects or classified correctly. Examples of inconsistencies found include:

- ♦ Help desk tickets documenting the error as known, but not referring to the defect intended to address it.
- ♦ Help desk tickets identified as a training issue when a defect is linked to the issue because the root cause is due to system error.

Industry standards require all issues be properly classified. Incorrect and incomplete classification of issues and not linking issue tickets to defects disrupts the prioritization process and provides the department with inaccurate data for reporting and viewing issue cause. The department acknowledges the need for a more consistent process that is understood by everyone and has been making efforts to be more accurate and consistent when classifying issue tickets.

RECOMMENDATION #10

We recommend the Department of Public Health and Human Services:

- A. *Improve the process by ensuring all classifications on help desk tickets are accurate and complete and defects are associated as necessary.*
- B. *Document the process to ensure consistency.*

Addressing Root Cause

For system issues, further classification is completed to understand how the root cause will be addressed and whether the defect is data or application related.

- ♦ **Data Defect:** Addresses the instance of data that is incorrect; no code changes are made to adjust how the system functions.
- ♦ **Application Defect:** Addresses how the system functions by adding/changing code.

This classification was reviewed through issue management system reports. We evaluated open and closed defects by this classification and noted differences between the amount of data defects versus application defects since implementation.

Table 6
Defects Identified in Production Environment

	CLOSED		OPEN	
Type	# of Defects	% of Total	# of Defects	% of Total
Data Defect	2,683	96%	133	13%
Application Defects	102	3%	821	76%
Other Defects	19	1%	120	11%
Total	2,804	100%	1,074	100%

Source: Compiled by the Legislative Audit Division.

The high number of data defects that have been resolved in comparison to application defects leads us to believe that the root cause, the reason the data is incorrect, is not being addressed. Reviewing these reports over a 30-day timespan also showed that closed data defects increased by 526, while closed application defects only increased by 16. We did not complete testing due to the amount of defects, but we identified an

instance of three data defects with the same cause that had been fixed with no obvious application fix.

There are situations when a data defect is addressed as a temporary patch until the root cause can be addressed through an application defect. There are almost three data defects to each application defect, including both open and closed defects. This indicates that data defects are being done as patches multiple times before an issue is addressed through an application fix.

We cannot assure that all issues are being addressed due to inconsistent classification and linking of issues, but have evidence that not all issues are being addressed at the root cause of system functionality. The department states data defects address individual issues and are used as interim solutions to issues. This is a necessary process within industry standards; however, standards also require implementing a sustainable, long-term fix to reduce the risk of business disruptions, reoccurrence of issues, and a user perception that issues are not being fixed within the system. Without controls in place to ensure the root cause is addressed, data defects become a quick solution and the underlying cause is not addressed.

RECOMMENDATION #11

We recommend the Department of Public Health and Human Services establish a process to limit reliance on data fixes and ensure data fixes are associated with a long-term application fix, if necessary.

Communication of Issue Management

Our survey also asked a few questions about communication in regards to issue management. We asked specifically about issues the user had identified and general communication about all issues within the system.

Table 7
User Survey Response: Issue Communication to Users

Communication users have received concerning issues from either management, central office, or help desk/service desk.	Responses*
Issues being fixed with upcoming build	67%
Known Issues	50%
None	13%
Other (please specify)	18%
Communication users have received concerning issues they have reported.	Responses*
Issue or Ticket number	80%
Request/Follow-up for Issue details	39%
Update on issue status	33%
Notification of when the issue will be fixed	33%
Reason for closing the issue (fixed or not)	33%
I don't report issues	8%
Other (please specify)	12%

Source: Compiled by the Legislative Audit Division from survey responses.

*Respondents could identify multiple options.

From these results, communication appears to be occurring in some instances more than others. For issues the respondent identified, most receive acknowledgement with an issue or ticket number. However, the number of respondents that receive other types of communication drops sharply. When discussing issues as a whole, about half of the users responded that they received communication.

We reviewed issue management system reports and communication sent from the central office to understand why there was not a higher percent of respondents receiving communication. A metric within the issue management system tracks whether or not the user was contacted about resolution. When looking at all closed tickets, over 22,000 had the answer “No,” and over 29,000 had the answer “Yes.” This indicates that 44 percent of ticket resolutions have not been communicated to the user. Through site observations and contact with users, we verified tickets were closed without communication. As an example, when we contacted a user about a closed ticket, the user contacted the service desk to ask why the ticket was closed. The issue was subsequently reopened.

We also examined communication sent to users about planned system updates and reviewed training information about system changes with each update. We found training for system improvements that users are required to take; however, this training does not review all changes within each update. Only a brief description of what was changing within each update was noted in spreadsheets shared with users. This spreadsheet does not include detailed information for a user to understand what exactly the enhancement or issue was or information on whether or not their interaction with the system needs to be modified due to the change.

Department staff agree that communication needs to be increased, but said they do not communicate some things, like temporary actions addressing issues, so users do not misapply them to situations when the action is not necessary. They also want to know how often issues occur, and they feel they would lose sight of this if users were to know all of the temporary actions used. The department stated that due to the number of temporary actions, managing a list like this would be a daunting task as well, so these actions are handled on a case by case basis and no master list is maintained.

Industry standards note that communication is necessary to keep users informed of time frames for temporary actions and to ensure that the users affected are aware of the actions taken and the plans developed to prevent future incidents from occurring. Communication is important to decrease the risk of users applying temporary actions when no longer necessary or using them when not approved. By increasing communication and transparency to users about issue management, user trust will be increased and risk of system misuse and decreased efficiency will be mitigated.

RECOMMENDATION #12

We recommend the Department of Public Health and Human Services increase communication to users regarding:

- A. *Individual help desk ticket resolution and any related defect resolutions.*
 - B. *Defects being addressed through each build and what workarounds will no longer be necessary.*
-

Chapter V – Access and Monitoring

Introduction

Access and monitoring controls ensure the integrity of the data within the system and the integrity of the programs managed by the system. Controls include:

- ◆ Process for granting access that ensures access is needed and approved.
- ◆ Process for assigning access that:
 - ◇ Ensures only the needed functions are assigned and that users are not given privileges for when they do not have a business need.
 - ◇ Ensures segregation of duties for processes with a high risk of fraud.
- ◆ Process for reviewing all access on a consistent basis to identify changes and updates.
- ◆ Process for monitoring privileged functions to ensure they are not abused and are accurate if overriding system suggestions.

Weaknesses in these processes increase the risk of unauthorized actions, fraud, and data errors that ultimately affect the accuracy of the benefits issued and integrity of the programs and department. They also increase the risk of personal identification and health information security issues within the system.

We reviewed documentation and user lists, and discussed processes with department staff to understand what processes were in place to mitigate these risks.

Privileged Function Controls

Privileged functions include any functions that are not given to the general population of users. Privileged function control helps to mitigate the risk of fraud, security issues, or data integrity issues. Within CHIMES-EA, these functions specifically relate to:

- ◆ The ability to override or change system metrics or outcomes by:
 - ◇ Issuing manual benefits
 - ◇ Creating manual overpayment claims/supplemental payments
 - ◇ Issuing manual correspondence and mass mailing correspondence
 - ◇ Changing redetermination dates
- ◆ Managing user access by creating, updating, or deleting user roles
- ◆ Specific functions that only certain individuals are authorized to do:
 - ◇ Work Readiness Component (WoRC) functions
 - ◇ Child Support Enforcement Division (CSED) custodial parent functions
 - ◇ Overpayment adjustment functions

We reviewed access by obtaining a user list and definitions of privileged roles to understand what functions individuals were given access to. We identified access that was not necessary including:

- ◆ Four roles, assigned to 83 users, with access to adjust overpayments.
- ◆ Two roles, assigned to 12 users, with access to send mass correspondence.
- ◆ Four users with roles assigned that were no longer necessary.

These issues exist because the current access review procedure does not include a periodic review of what privileged functions are allowed for each role and if the function is necessary, or a review of what users have roles with access to privilege functions.

Industry standards indicate the access process not only include a review of all users, but a periodic, thorough review of privileged roles to ensure functions allowed to each role still align with business processes and needs, as well as a review of the users who have those roles. By doing this, the department will decrease the risk of users having more privileges than necessary.

RECOMMENDATION #13

We recommend the Department of Public Health and Human Services improve current access review procedures by including:

- A. *What privileged functions are allowed in each role and if it is necessary.*
 - B. *Which users have roles with access to privileged functions.*
-

Manual Change Controls

Manual changes to the system include both user and contractor processes to adjust or override information within the system. Our audit reviewed both types of changes:

- ◆ Manual changes to system determinations and calculations by users.
- ◆ Manual changes to data within the system by the contractor.

In the case of a system issue, manual changes may be necessary. However, proper controls need to be implemented to ensure data integrity. Industry standards stress the importance of segregating responsibilities in processes like these. In cases where separation cannot be accomplished, monitoring of user activity within these processes should be implemented. Strong controls over these processes are important to mitigate the risk of fraud and uphold the integrity of the program.

Manual Changes by the Contractor

Within our review of the issue management process, we identified a process to adjust data within the system when issues occur. These adjustments can be done to various data elements of a case including important dates and eligibility status. These changes can be done to individual cases, or mass data changes are done if multiple cases have the same problem. This process includes proper steps to review the proposed change, including the contractor directly accessing the system database to make the change after these approvals.

When discussing contractor access with the department, it was unclear what type of access the contractors had to the system database because this is not reported or managed. The only documentation of contractor access is the initial access request. We reviewed the requests of the contractor's staff tasked with administering these changes. These requests showed full administrative access to the system database.

Industry standards stress that contractors should not have access to live data within the system database; however, when that cannot be achieved, proper monitoring needs to be established. If this level of access is granted to the contractor, industry standards and state policy require management ensure only authorized changes are being made. Without management, individuals outside of the state agency can access personal information and adjust important case information without proper authorization or an audit trail for detection.

By managing the access of contractors within the databases, the department reduces the risk of system inaccuracies and data integrity issues. Managing access could include the following activities:

- ◆ Maintaining and continually reviewing documentation of system access.
- ◆ Monitoring the activity of users with privileged functions.
- ◆ Reviewing logs of changes made to the database.
- ◆ Establishing a process to identify unauthorized access and changes.
- ◆ Limit access to only times when its needed.

RECOMMENDATION #14

We recommend the Department of Public Health and Human Services:

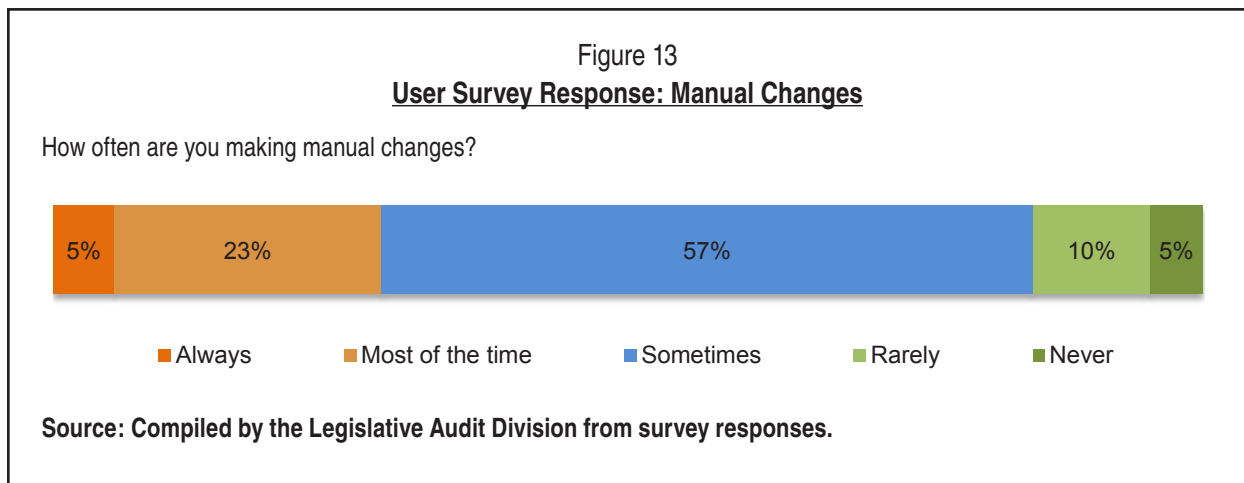
- A. *Document and track contractor access to system databases.*
 - B. *Monitor contractor activity within system databases.*
-

Manual Changes by Users

Within our review of user access, we also evaluated processes with a high risk of fraud to ensure proper segregation of duties exists. The processes that increase these risks are those that give users the ability to manually change system determinations and calculations. The processes identified include:

- ♦ Manual Issuance: Issuing benefits prior to the system determining eligibility and calculating benefits.
- ♦ Overrides: Changing system calculated benefit amounts or eligibility determinations.
- ♦ Discrepancies: Manually establishing a supplemental payment or overpayment claim.

Survey responses show that users are more likely to make changes to the system than not (shown in Figure 13), which increases the importance of strong controls.



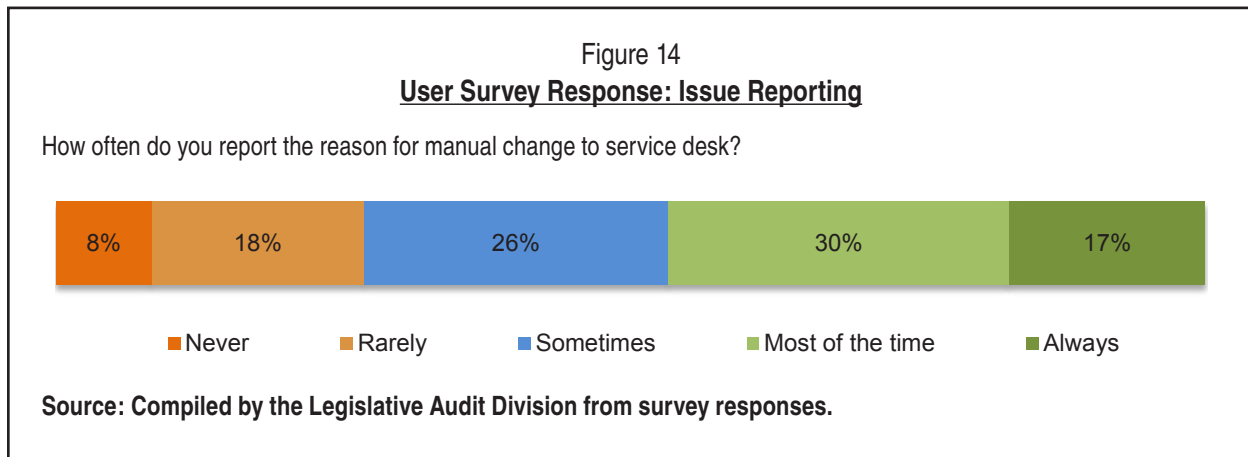
When reviewing controls for high risk processes, we found that 429 users can manually create overpayment claims, but the system requires dual authorization and access to adjust overpayment claims is limited. While this is an adequate control, the following two issues were identified in other high risk processes:

1. Manual issuance and manual supplement capabilities are limited to only supervisors and a few central office staff (85 users) with no approval process.
2. Override capabilities are assigned to most users (over 450) with no approval controls within the system; however, the department insists users not complete an override until consulting with central office first.

While there are some controls in place for these processes, the lack of approval controls increases the need for monitoring of manual issuances and overrides. When discussing how these are monitored, the department stated they are not directly monitored.

They have run a report in the past to show the amount of overrides compared to authorizations, but do not consistently run it or use any other reports to ensure overrides are accurate and being used appropriately. That report showed that overrides steadily increased from December 2013 (3 percent of authorizations) to June 2014 (7 percent of authorizations). In 2015, that number has maintained between 3 and 6 percent of authorizations for each month.

The department is currently relying on users reporting issues as a means of understanding how often manual changes occur. This method does not allow for easy understanding of all overrides or manual issuances, and is only accurate if users are reporting all issues. Survey responses showed that not all users are reporting manual change reasons.



By monitoring manual issuance and overrides, the department can ensure the changes to the system are accurate. They will also be able to understand how often changes are happening instead of relying on users to report when manual changes happen. This control activity will reduce the risk of fraud and ensure data and program integrity.

RECOMMENDATION #15

We recommend the Department of Public Health and Human Services strengthen manual change controls by implementing procedures to monitor manual issuances, manual supplemental payments, and overrides.

Chapter VI – Defining System Functionality

Introduction

Defining system functionality is important to understanding how the system should function and knowing when it is not functioning properly. This is done through proper training and thorough documentation. Industry standards require these both be adequate to increase the understanding of how the system should function or how the process to manage the system works. Other reasons thorough documentation and training are necessary include:

- ◆ Reducing system errors that go unidentified.
- ◆ Reducing improper system management and use.
- ◆ Improving inefficient processes.
- ◆ Ensuring all necessary steps are documented.

Our audit reviewed controls in both training and documentation:

- ◆ **System Training:** We referred to user guides and system training courses provided by the Department of Public Health and Human Services (department) to understand how to use the system. We also talked about these resources with users.
- ◆ **Documentation:** We reviewed documentation describing system design, expected functionality, and processes involved in managing the system.

Our audit noted documentation that was incomplete, out-of-date, or that did not exist, as well as training that needed to be strengthened. The following sections discuss our findings and recommendation to the department.

System Training

Through site observations, users expressed concerns with the amount of training a person receives before having to work actual cases. They indicated that because it did not cover important points of policy and processes, issues were occurring with case management. We observed users relying on experienced staff with a good policy background to direct them when they have issues because that is the only resource available. As experienced staff leave, knowledge goes with them. This over reliance on other staff creates inefficiencies by taking time away from both the person needing guidance and the person providing guidance. If a user is not aware of how the system is supposed to enforce policy, or act in certain situations, the risk that the user may not identify when the system is not functioning correctly is also increased.

User guides and system manuals are considered system documentation that describes the interaction between users and the system and defines how the system should function. Industry standards require these types of documents, as well as training, be reviewed and updated on a regular basis to ensure adequacy. Guidelines suggest reviewing user satisfaction levels for training and operation manuals after training is conducted and after the user has interacted with the system to better understand how well users were prepared. The department currently has a survey available for users immediately after training. However, this does not gather information to understand how well the user was prepared for working in actual cases.

The department is initiating plans to review this type of material and make adjustments to training with estimated completion in 2016. It is important this initiative be completed as soon as possible to improve the user experience with the system, improve efficiency, and reduce the risk of benefit errors. Reviews of training material and manuals should be conducted on a regular basis after reviewing user satisfaction to continuously improve the training process.

RECOMMENDATION #16

We recommend the Department of Public Health and Human Services improve user training by:

- A. *Covering scenarios that introduce more policy.*
 - B. *Evaluating how satisfied users are with the amount of preparation and training they received.*
 - C. *Update training on a regular basis.*
-

System Documentation

System documentation creates the baseline for how the system is intended to function. This documentation also outlines the processes the system is involved with and how it is intended to be used. Our review of the various types of system documentation are summarized below:

Business Rules: Identify what actions are taken when certain conditions exist. These documents are the blueprints for how the system processes situations and makes decisions. Each rule is outlined in one document, so there are over 900 documents that have to be maintained to understand how the system should function. Our review of 253 business rule documents noted:

- ♦ For 33 business rule documents, we were unable to find a condition or action noted in policy within the document, the wording was unclear or confusing, or it was not up-to-date.
- ♦ For 26 business rule documents, there was no reference to policy, or an incorrect reference was noted.

Correspondence: Communication to clients concerning their case or application is considered correspondence. Design documentation states how correspondence is triggered, either by the user or by the system, and what conditions need to exist if the correspondence is triggered by the system. These design documents also show the layout and standard language of the correspondence. Our review of 152 design documents for correspondence noted:

- ♦ Nine correspondence documents missing details for how the correspondence is triggered or conditions for it to be triggered.
- ♦ Twenty-nine correspondence documents that were not referenced in policy.

Interfaces: Interface design documentation provides expectations for how an interface is intended to function and be monitored. Interface documentation should also include an agreement between both system managers for security purposes. These agreements, known as Data Sharing Agreements (DSAs), ensure that the data will not be misused and describe security requirements and the nature of the information communicated. Our review of 39 interface documents noted:

- ♦ Two interfaces did not have data sharing agreements. The department is waiting for the other system managers to finalize the documents.
- ♦ Sixteen interfaces where documentation was inconsistent with either how often the interface was run, or the information monitored and what was documented to be monitored.

Benefit Discrepancies: These documents include business rules defining how a discrepancy is determined by the system and separate documentation defining the process to manage discrepancies within the system. Our review of the process and associated system documentation noted that the following types of documentation do not exist:

- ♦ Documentation of the process to manage discrepancies, noting all user interaction with the system and information transfers.
- ♦ Documentation determining how the system calculates overpayment claims.

Issue Management: Issue management documentation is critical to ensure standardized procedures are being followed and that these procedures reduce risk and inefficiencies. From the audit work performed, we determined there is an issue management process established, and the process expectations set by the department

are followed by the contractor. However, we found outdated and inaccurate plans and system documents that had been updated but lacked department approval.

System Testing: Documentation throughout system testing is important to ensure testing is thorough and approved before changes are made to the system. This reduces the risk of issues occurring due to the change. We reviewed test scenarios specific to correspondence within the system and the testing process within issue management. Test scenarios identify the exact aspect of the system that is being tested by identifying steps that should be taken to test and what the expected result should be. Our findings include:

- ◆ Forty-eight notices were not tested consistently with design documentation defining the triggers (automatic or manual) to create the correspondence. The department stated that thorough, yet undocumented, testing was conducted.
- ◆ There is no documented process for testing that includes:
 - ◇ What test phases are appropriate and expected to be used.
 - ◇ Criteria for evaluating success to ensure it meets business expectations.
 - ◇ Roles, responsibilities, and authority for approving testing.
- ◆ Test scenarios are being created for testing; however, they are not always executed. User testing only covered 31.8 percent of the test scenarios created. The department noted that other testing was done and that for smaller updates, testing is noted in the issue management system instead of the normal testing system since it is quicker and easier.

These incomplete documents are the result of a lack of department oversight to ensure documentation is complete and accurate with changes made to processes and the system. While the department has assigned responsibility of updating and maintaining documentation to the contractor, the department is accountable for ensuring accuracy and completeness. Without this documentation, we cannot conclude what certain intended system functions are or that processes to manage the system are consistently occurring according to policy or industry standards.

Policy and Procedural Documentation

Policy and procedural documentation outline how interactions are expected to occur with the system. They also provide users with an authorized set of procedures and policies driving specific processes relative to the new system. This decreases the risk that the system is misused and helps users to identify when the system is not functioning according to policy. Our review of this documentation is summarized below:

Policy: Policy currently references the previous system and procedures within that system. Because of this, new users have to rely on experienced staff as the resource for

current operations. If the policies or procedures are not accurate and do not reference current business systems and operations, employees have no relevant documented procedures to follow.

User Guides: When testing the system, we were unable to find training or procedural documents for some of our scenarios. These scenarios were not documented within user guides well enough to inform us how to correctly enter information. Some examples of scenarios we noted include:

- ◆ Self-employment
- ◆ Alien sponsor/legal alien
- ◆ Reviewing a supplement/overpayment claim suggested by the system
- ◆ Establishing a manual overpayment claim according to policy
- ◆ Individuals on strike

We also witnessed users not knowing what to do in the same scenarios. Users had nothing to refer to because training documents or user guides do not cover the subject, and policy references the old system. These users had to set the case aside to discuss later with a more knowledgeable user.

Managing Documentation

The department relies on the contractor for managing most of the system documentation, but is accountable for ensuring it is accurate and up-to-date. This is why change logs are a part of each system document and require the change be documented by the contractor and approved by the department. Our audit found the department is not consistently reviewing/auditing documentation to ensure updates are accurate and completed, or to ensure all system decisions are documented.

Policy and procedural documentation updates were delayed until business processes were finalized and the work could be done in one review. The department is initiating that review now and plans to have the work completed in 2016.

By increasing controls to maintain more accurate and complete documentation, the department increases awareness and understanding in the following areas:

- ◆ How the system should be functioning.
- ◆ How to properly use the system.
- ◆ How to manage processes that control the system.

RECOMMENDATION #17

We recommend the Department of Public Health and Human Services create or update documentation and strengthen controls for reviewing documentation in the following areas:

- A. Policy referencing previous systems*
 - B. Business Rules and Correspondence Detailed Design Documents*
 - C. Interface Design Documentation and Data Sharing Agreements*
 - D. Benefit Discrepancy Business Rules and Process*
 - E. Issue Management Procedures*
 - F. System Testing Plans*
 - G. User Guides and System Manuals*
-

Appendix A

This section provides survey response data. Throughout the survey users were also given opportunities to comment on certain topics. Those comments were not included in this summary. The total population for the survey was 984, with 512 responses and 472 nonresponses. Throughout the survey, skip logic was used so users were directed to questions relevant to their position and interaction with the system.

Survey Data Used for Report

What is your role within the system?			
	Total Responses:	512	Nonresponse: 0
Eligibility Levels 1-5		224	
Eligibility Supervisor		37	
WoRC Related		69	
CSED Related		42	
Regional Manager		3	
Program Officer		16	
Director		12	
Accounting Services		4	
Investigator/Auditor		17	
Legal Services		1	
Not sure		22	
Other (please specify)		65	
What do you spend most of your time in CHIMES EA on?			
	Total Responses:	512	Nonresponse: 0
Case Management (intake, authorization, update)		313	
Case Assistance/Troubleshooting		79	
Supervisory Actions (approvals, overrides, reviews)		58	
Read/View Information Only		137	
Other (please specify)		36	
How long have you been in your current position?			
	Total Responses:	512	Nonresponse: 0
0-2 years		182	
3-5 years		108	
5-10 years		99	
10+ years		123	
How long have you been working with Human and Community Services?			
	Total Responses:	512	Nonresponse: 0
0-2 years		99	
3-5 years		91	
5-10 years		84	
10+ years		184	
I don't work in this Division		54	
On average, how many hours do you spend working directly in CHIMES per day?			
	Total Responses:	512	Nonresponse: 0
More than 5 hours		310	

3 hours to 5 hours	62			
1 hour to 3 hours	61			
Less than 1 hour	79			
If you were involved in the development of CHIMES EA, please select your role(s).				
	Total Responses:	512	Nonresponse: 0	
None, was not involved		431		
Consulted on Policy during development		23		
Testing the system prior to implementation		62		
Other (please specify)		29		
In your opinion, is CHIMES EA...				
Total Responses: 485, Nonresponse: 27	Always	Most of the time	Sometimes	Never
User Friendly	4	138	272	69
Responding in a timely manner	6	163	272	36
Easy to learn	12	159	216	92
Processing applications quickly	7	134	248	58
Accurate	6	146	291	27
Simplifying Processes	6	117	231	109
Reducing Errors	5	88	256	117
Allowing you to spend the majority of your time on qualitative customer care	4	97	239	124
Increasing the efficiency of collection, reporting, and analysis of client data	9	111	239	101
What functions does CHIMES provide that assist you in your daily work?				
	Total Responses:	485	Nonresponse: 27	
Information gathering in one system		275		
Eligibility determination		291		
Benefit calculation and issuance		234		
On-going case management		267		
Staff workload management		126		
Reporting		114		
System Interfaces		201		
Not Sure		30		
Other (please specify)		62		
Do you feel these functions are working as intended?				
	Total Responses:	485	Nonresponse: 27	
Yes		117		
No		260		
Not Sure		108		
What best describes your role in CHIMES?				
	Total Responses:	481	Nonresponse: 31	
I enter information in to the system		284		
I supervise/manage people who enter information in to the system		59		

I assist people who enter information in to the system, but do not enter information	6	
I view information, but do not enter information	93	
Other (please specify)	39	
Does your office have a policy/procedure for addressing discrepancies in benefit amounts that have been issued?		
Total Responses:	339	Nonresponse: 4
Yes	228	
No	27	
Don't Know	40	
Not Applicable	44	
Does the system assist in identifying discrepancies in benefit amounts issued?		
Total Responses:	339	Nonresponse: 4
Yes	137	
No	140	
Not Applicable	62	
In your opinion, how often does the system identify discrepancies in benefit amounts?		
Total Responses/Nonresponse:	Overpayments 229/114	Underpayments 227/116
Always	7	2
Most of the time	52	50
Sometimes	84	100
Rarely	37	37
Never	13	9
Not Applicable	36	29
What type of manual changes do you make within CHIMES to get a desired result?		
Total Responses:	333	Nonresponse: 10
Overriding benefit amount	196	
Open/Close of a case	179	
Withdraw of an application	136	
Other (please specify)	74	
Not Applicable	45	
None	21	
In your estimation how often are you making manual changes?		
Total Responses:	333	Nonresponse: 10
Always	15	
Most of the time	66	
Sometimes	161	
Rarely	29	
Never	13	
Not Applicable	49	
When a manual change is done, how often are you notifying Service Desk of the reason for the manual change?		
Total Responses:	333	Nonresponse: 10

Always	47	
Most of the time	82	
Sometimes	73	
Rarely	51	
Never	23	
Not Applicable	57	
In your estimation, how often do you create manual budgets to verify CHIMES budgets?		
Total Responses:	333	Nonresponse: 10
Always	11	
Most of the time	43	
Sometimes	117	
Rarely	78	
Never	17	
Not Applicable	67	
How often do the cases that you work require some kind of workaround due to a system issue?		
Total Responses:	332	Nonresponse: 9
Always	4	
Most of the time	108	
Sometimes	176	
Rarely	24	
Never	1	
Not Applicable	19	
Are you aware of an available list of authorized workarounds for users to reference?		
Total Responses:	332	Nonresponse: 9
Yes	60	
No	249	
Not Applicable	23	
How many workarounds currently exist that you are aware of?		
Total Responses:	332	Nonresponse: 9
Less than 5	76	
5-10	69	
10-20	64	
20+	55	
Not Applicable	68	
Are you required to report issues found in CHIMES?		
Total Responses:	466	Nonresponse: 46
Yes	303	
No	163	
Does your office have a process for reporting issues within the system when they are found?		
Total Responses:	306	Nonresponse: 0
Yes	286	
No	7	
Don't Know	13	
How do you report issues?		

Total Responses: 306 Nonresponse: 0		
Through my supervisor/manager	218	
Direct call to a Service Desk	94	
Email to a Service Desk	98	
I don't report issues	6	
Other (please specify)	45	
In your estimation, how often do you report problems in the system that you encounter even if you use a workaround to move on?		
Total Responses: 306 Nonresponse: 0		
Always	50	
Most of the time	108	
Sometimes	96	
Rarely	33	
Never	4	
Not Applicable	15	
Please select what communication you have received concerning issues from either management, central office, or help desk/service desk.		
Total Responses: 305 Nonresponse: 1		
Known Issues	151	
Issues being fixed with upcoming build	205	
None	40	
Other (please specify)	56	
Are you aware of authorized temporary actions to work around issues until fixed?		
Total Responses: 305 Nonresponse: 1		
Yes	80	
No	88	
I know how to work around the issues, but not sure if the actions are authorized	100	
Not Applicable	37	
In your estimation, how often are issues that affect your daily work being addressed in a timely manner?		
Total Responses: 305 Nonresponse: 1		
Always	13	
Most of the time	71	
Sometimes	138	
Rarely	60	
Never	5	
Not Applicable	18	
If the ticket was closed, how often is the issue ultimately resolved so that eligibility or benefits can be determined?		
Total Responses: 303 Nonresponse: 3		
Always	15	
Most of the time	114	
Sometimes	100	

Rarely	23					
Never	0					
Not Applicable	51					
If a ticket is closed without resolution, how often is a reason given?						
Total Responses:	303	Nonresponse:	3			
Always	31					
Most of the time	69					
Sometimes	66					
Rarely	41					
Never	21					
Not Applicable	75					
Please select what communication you have received concerning issues you have reported.						
Total Responses:	300	Nonresponse:	6			
Issue or Ticket number	239					
Request/Follow-up for Issue details	118					
Update on issue status	98					
Notification of when the issue will be fixed	99					
Reason for closing the issue (fixed or not)	98					
I don't report issues	24					
Other (please specify)	37					
How often is the issue management process effective and providing a helpful service for users?						
Total Responses:	298	Nonresponse:	8			
Always	10					
Most of the time	66					
Sometimes	137					
Rarely	36					
Never	4					
Not Applicable	45					
Does your job require you to use information that is either: 1) provided to CHIMES from another system; or 2) received from CHIMES?						
Total Responses:	462	Nonresponse:	50			
Yes	423					
No	39					
How often do you use these interfaces that provide information to CHIMES?						
Total Responses: 409, Nonresponse: 14	Always	Most of the time	Sometimes	Rarely	Never	NA
CCUBS Child Care Co-Pay	18	23	32	38	116	138
CCUBS Child Care Referral	26	21	25	43	118	126
SOLQ SSN, Title 2 & 16 Verification	211	54	16	9	23	87
DMS	233	34	17	4	27	88
ORION Property Taxes	73	41	60	29	68	113
Verify Lawful Presence	54	30	68	52	64	113
LIEAP Eligibility	132	64	39	20	37	103
Vehicle Title Registration	116	58	66	19	38	99

eDRS Disqualification Status	96	39	36	17	62	123
Other (please specify in 250 characters)	59					
How often do you use these interfaces that receive information from CHIMES?						
		Most of the time				
Total Responses: 409, Nonresponse: 14	Always		Sometimes	Rarely	Never	NA
Eligibility Info for SIS/WIC	11	9	18	17	156	179
Emergency Assistance Info for CAPS	13	16	41	20	136	166
TANF Grant Amount for SEARCHS	85	45	44	16	96	117
Location Info for SEARCHS	81	42	40	14	97	123
Other (please specify in 250 characters)	25					
How often is the information provided in these interfaces useful and accurate?						
		Most of the time				
Total Responses: 409, Nonresponse: 14	Always		Sometimes	Rarely	Never	NA
CAPS Foster Care	13	27	25	14	39	259
CAPS EA Referral	19	33	24	15	35	249
SEARCHS Non-Custodial Parent Info	76	91	53	18	21	124
SEARCHS Non-Cooperation Info	72	84	59	19	23	135
SEARCHS Out-of-State Info	45	57	51	21	40	166
SEARCHS Child Support Payments	112	94	37	16	22	111
CCUBS Income/WoRC/FIA	18	37	33	11	39	233
CCUBS Child Care Payments	19	32	27	18	41	228
MISTICS Quarterly Wage	138	92	28	11	15	108
MISTICS Unemployment	139	77	29	15	25	112
BENDEX Income & Disability Info	77	80	52	19	20	133
Prisoner Verification	54	62	69	44	26	126
SSA for SSI and State Supplement Info	131	116	33	7	6	95
SSA SSN and demographic Info	133	111	38	8	7	96
Montana Death Registry	72	78	42	18	24	149
Other (please specify in 250 characters)	23					

DEPARTMENT OF PUBLIC
HEALTH AND HUMAN
SERVICES

DEPARTMENT RESPONSE



Department of Public Health and Human Services

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Steve Bullock, Governor

Richard H. Opper, Director

October 13, 2015

Tori Hunthausen
Legislative Auditor
Legislative Audit Division
Room 160, State Capitol Building
PO Box 201705
Helena, Montana 59620-1705

RECEIVED
OCT 13 2015
LEGISLATIVE AUDIT DIV.

Re: CHIMES-EA Combined Healthcare Information and Montana Eligibility System-Enterprise Architecture

Dear Ms. Hunthausen:

The Department of Public Health and Human Services has reviewed the *CHIMES-EA Combined Healthcare Information and Montana Eligibility System-Enterprise Architecture Audit* (15DP-01) completed by the Legislative Audit Division. Our responses and corrective action plans for each recommendation are provided below.

Recommendation #1: We recommend the Department of Public Health and Human Services strengthen performance monitoring processes by:

- A. Defining specific goals relative to the system and each program managed by the system.
- B. Defining and documenting a process to consistently review all data relative to these goals.
- C. Reviewing information gathered to identify, document, and track system relation to root cause, and communicating results to others.

Response: Concur

Corrective Action: The Department will define consolidated program performance goals and document the process to consistently review all data relative to these goals. In addition, the Department will continue to use information gathered to identify, document and track system relation to root cause and will communicate those results to others.

Planned Completion Date: 1/31/2016

Recommendation #2: We recommend the Department of Public Health and Human Services develop a plan to promptly address outstanding system defects that impact eligibility determinations and benefit calculations.

Response: Concur

Corrective Action: The Department will take a Business Value Assessment of all outstanding defects and prioritize them according to criticality of the issue.

Planned Completion Date: 4/30/2016

Recommendation #3: We recommend the Department of Public Health and Human Services improve interface monitoring by:

- A. Increasing oversight and review of the monitoring process.
- B. Ensuring only necessary information is logged and only users with a business need can access logged information.

Response: Concur

Corrective Action: The Department is in the planning and requirements gathering phase of implementing continuous monitoring and incident reporting using the Security Information and Event Management (SIEM) tool SPLUNK for CHIMES. The Department will add interface monitoring to the scope of the SIEM project to provide a more effective method of interface monitoring and oversight. The Department has already verified that only necessary information is logged and that no PHI or PII is contained in the logs that can be accessed by those without a business need.

Planned Completion Date: 5/31/2016

Recommendation #4: We recommend the Department of Public Health and Human Services strengthen interface controls by consistently:

- A. Meeting with all stakeholders to document and review current issues.
- B. Communicating with and updating stakeholders throughout the process.

Response: Concur

Corrective Action: The Department will meet with and communicate with stakeholders on a more regular basis to document and review current issues and will keep them updated throughout the process.

Planned Completion Date: 12/31/2015

Recommendation #5: We recommend the Department of Public Health and Human Services conduct a review of consolidated, statewide overpayment information, including potential overpayments, on a periodic basis.

Response: Concur

Corrective Action: The Department will conduct a review of consolidated, statewide overpayment information, including potential overpayments, on a periodic basis.

Planned Completion Date: 2/15/2016

Recommendation #6: We recommend the Department of Public Health and Human Services establish and document a process to review metrics related to the source of overpayment claims and address any identified functionality issues.

Response: Concur

Corrective Action: The Department will establish and document a process to review metrics related to the source of overpayment claims and address any identified functionality issues.

Planned Completion Date: 2/15/2016

Recommendation #7: We recommend the Department of Public Health and Human Services:

- A. Review claim management processes and controls to continually identify risks and opportunities for automated improvements to controls and efficiencies.
- B. Ensure all users are trained appropriately to set up and approve overpayment claims according to policy.

Response: Concur

Corrective Action: The Department will continue to review overpayment processes to identify if there are ways to reduce manual processes. The Department will also evaluate the current training and update as necessary to ensure that overpayment claims are established as required by policy and that all applicable staff are trained appropriately.

Planned Completion Date: 12/31/2015

Recommendation #8: We recommend the Department of Public Health and Human Services ensure all current help desk tickets, enhancements, and defects have been prioritized.

Response: Concur

Corrective Action: The Department will ensure all current help desk tickets, enhancements and defects have been prioritized through our change control process.

Planned Completion Date: 4/30/2016

Recommendation #9: We recommend the Department of Public Health and Human Services establish, monitor, and enforce benchmarks for:

- A. Analysis and prioritization of help desk tickets, defects, and enhancements.
- B. Time frames for implementing solutions.

Response: Concur

Corrective Action: The Department will continue to analyze and prioritize help desk tickets, defects and enhancements based on business impact. The future release schedule of monthly and quarterly builds, and the summary of the builds completed since the start of 2015, provides timelines for implementing solutions.

Planned Completion Date: 1/31/2016

Recommendation #10: We recommend the Department of Public Health and Human Services:

- A. Improve the process by ensuring all classifications on help desk tickets are accurate and complete and defects are associated as necessary.
- B. Document the process to ensure consistency.

Response: Concur

Corrective Action: The Department will ensure all classifications on help desk tickets are accurate and complete and defects are associated as necessary and will document the process to ensure consistency.

Planned Completion Date: 4/1/2016

Recommendation #11: We recommend the Department of Public Health and Human Services establish a process to limit reliance on data fixes and ensure data fixes are associated with a long-term application fix, if necessary.

Response: Concur

Corrective Action: The Department will establish a review process for data fixes and ensure that data fixes are associated with a long-term application fixes, only if necessary. Data fixes, that may be recurring in nature, will still be done when needed as a temporary resolution to mitigate issues while the permanent fix is being prioritized, completed and tested.

Planned Completion Date: 4/1/2016

Recommendation #12: We recommend the Department of Public Health and Human Services increase communication to users regarding:

- A. Individual help desk ticket resolution and any related defect resolutions.
- B. Defects being addressed through each build and what workarounds will no longer be necessary.

Response: Concur

Corrective Action: The Department will incorporate more communication into the release notes related to a build, including training documentation that updates users when the need to perform an interim solution is no longer needed. Users will continue to receive the resolution of every ticket submitted through the service desk process.

Planned Completion Date: 1/31/2016

Recommendation #13: We recommend the Department of Public Health and Human Services improve current access review procedures by including:

- A. What privileged functions are allowed in each role and if it is necessary.
- B. Which users have roles with access to privileged functions.

Response: Concur

Corrective Action: The Department will enhance our process to monitor user access and roles in CHIMES EA and improve the documentation related to the review of privileged functions and roles as part of our security access reviews.

Planned Completion Date: 2/15/2016

Recommendation #14: We recommend the Department of Public Health and Human Services:

- A. Document and track contractor access to system databases.
- B. Monitor contractor activity within system databases.

Response: Concur

Corrective Action: The Department will improve the documentation and tracking of contractor access to the system databases by enhancing the existing processes for documentation, tracking and auditing system access. The Department is in the planning and requirements gathering phase of implementing continuous monitoring and incident reporting using the Security Information and Event Management (SIEM) tool SPLUNK for CHIMES. The Department will also enhance existing database monitoring and oversight of activity within system databases.

Planned Completion Date: 5/31/2016

Recommendation #15: We recommend the Department of Public Health and Human Services strengthen manual change controls by implementing procedures to monitor manual issuances, manual supplemental payments and overrides.

Response: Concur

Corrective Action: The Department will monitor the frequency and use of the manual functions available within the system to ensure data and program integrity.

Planned Completion Date: 4/30/2016

Recommendation #16: We recommend the Department of Public Health and Human Services improve user training by:

- A. Covering scenarios that introduce more policy.
- B. Evaluating how satisfied users are with the amount of preparation and training they received.
- C. Update training on a regular basis.

Response: Concur

Corrective Action: The Department will continue to review and enhance training experiences and resources for staff and is committed to supporting staff competence related to case processing.

Planned Completion Date: 3/31/2016

Recommendation #17: We recommend the Department of Public Health and Human Services create or update documentation and strengthen controls for reviewing documentation in the following areas:

- A. Policy referencing previous systems
- B. Business Rules and Correspondence Detailed Design Documents
- C. Interface Design Documentation and Data Sharing Agreements
- D. Benefit Discrepancy Business Rules and Process
- E. Issue Management Procedures
- F. System Testing Plans
- G. User Guides and System Manuals

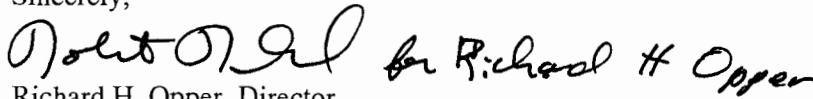
Response: Concur

Corrective Action: The Department will update policies to remove inappropriate references to previous systems. The Department will also update documentation and strengthen controls for reviewing documentation in the other areas referenced.

Planned Completion Date: 6/31/2016

We appreciate the effort that your staff put into this audit and look forward to using these recommendations to continue improving operations and decrease risk within the Medicaid Eligibility System.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard H. Opper". The signature is stylized and cursive.

Richard H. Opper, Director
Department of Public Health and Human Services

cc. Stuart Fuller, Technology Services Division Administrator
 Jamie Palagi, Human and Community Services Division Administrator
 Marie Matthews, Operations Services Branch Manager
 Bob Runkel, Economic Security Services Branch Manager
 Becky Schlauch, Business and Financial Services Division Administrator, Audit Liaison