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Colorado Trails System Performance Audit
November 2002

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   This report contains the results of the performance audit of the Colorado Trails information system administered by the Colorado Department of Human Services. The audit was conducted pursuant to Section 2-3-103, C.R.S., which authorizes the State Auditor to conduct audits of all departments, institutions, and agencies of state government. The report presents our findings, conclusions, and recommendations, and the responses of the Department of Human Services.

Ernst & Young LLP

COLORADO DEPARTMENT OF HUMAN SERVICES
COLORADO TRAILS SYSTEM PERFORMANCE AUDIT

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REPORT SUMMARY

Authority, Standards, Purpose and Scope of the Audit

This performance audit of the Colorado Trails (Trails) information system was conducted in accordance with an agreement between the Office of the State Auditor and Ernst & Young, LLP. The purpose of the audit was to review selected system controls and procedures in place to ensure the integrity and accuracy of information and reports generated by the Trails system. The audit was performed in accordance with generally accepted government auditing standards.

Our review was limited to the Trails application module for the Division of Child Welfare within the Department of Human Services (DHS); this review did not include the Trails module subsequently implemented for the Division of Youth Corrections, also within DHS. As part of our audit we met with representatives at five Colorado counties and conducted system testing at these counties. These counties included Jefferson, Denver, Adams, Mesa, and Morgan. We also met with training personnel, the vendor that developed the Trails system, the State Information Systems group at DHS and the system administrators. Our audit procedures included a review of documentation related to the Trails application; training; application and access controls; functionality including processing and reporting; change management processes; and security configurations. In addition, we reviewed the conversion process from the former system (the Child Welfare Eligibility and Services Tracking system, or CWEST) to Trails.

Overview

The Department of Human Services is responsible for overseeing the State's public assistance and welfare programs. These programs are administered by 64 different county departments of social services throughout Colorado. Eligibility for services and benefits is determined by staff in those county departments in conformance with state and federal fiscal and program regulations.

The Trails system was developed in response to federal legislation enacted in 1993. This legislation required states to collect more reliable and consistent information about children in adoption and foster care. The federal government made funding available to states to develop and implement automated systems that would enable states to meet the new federal reporting requirements. These systems are called Statewide Automated Child Welfare Information Systems, or SACWIS. In 1997, the Department awarded a contract to a private vendor, Dynamics Research Corporation (DRC), to develop a system to meet the requirements of SACWIS. This is the Colorado Trails information system. Prior to Trails, the Department utilized CWEST to document provider information; however, CWEST did not capture or track detailed adoption and foster care case information required for SACWIS.

With respect to Child Welfare programs, Colorado's Trails system includes Adoption and Foster Care, the Central Registry of Child Protection, and licensing and certification of

child care providers. Provider payments are made through Trails on behalf of the children in these Child Welfare programs. Providers include foster care homes, residential treatment centers, adoptive parents, and child care providers. Trails is part of an integrated data system within DHS with interfaces to the State's eligibility system for public assistance and Medicaid programs, as well as various other information systems. Trails also interfaces with the County Financial Management System (CFMS), which links county financial systems to the State's financial system, COFRS. In the future, Trails will interface with the State's new eligibility system, the Colorado Benefits Management System upon that system's implementation in 2004.

Trails' initial rollout, which was about 18 months behind in schedule and encompassed 70% of the system's total capabilities, started in January 2001 and took four months to complete. The total cost of the Child Welfare portion of the Trails project was $53,354,100. Federal matching funds paid $26,677,050, or 50% of the cost. The DYC portion of Trails cost an additional $9,174,567 in state funds and was not eligible for Federal matching funds.

Below is a summary of our major audit findings and recommendations by area based on the scope and approach described earlier. Details of these findings and recommendations as well as other identified issues are described in the Auditor's Findings and Recommendations / DHS Response section of the report.

System Oversight

The Department of Human Services encountered many challenges during the development and implementation of the Trails application. Although the Department had procedures for monitoring system development, there were not sufficient procedures in place over change management at the county level for Child Welfare business processes during the transition from CWEST to Trails. The Trails application is a case management tool that can document a wider range of data than the previous system. Further, Trails involves approximately twice as many users at the county level as the earlier system. Some of these new users had had limited previous experience with computers. In addition, for some users the initial training occurred four months prior to Trails implementation, and therefore users had forgotten much of what was learned.

Data Integrity

Several circumstances have lead to Trails containing inaccurate data.

➢ The primary problem is that in some instances there are duplicate records for clients and providers in the system. Unless a user follows thorough search procedures, the search engine will not correctly identify if a client has already been entered into the system. An adequate search can take considerable time to complete. Duplication of clients leads to problems in reporting and case counts. Currently, counties do not have a process to identify the number of duplications. Since all counties share the same database, duplications from one county may affect other counties.

➢ There are limited controls in place to prevent duplicate or inaccurate data from being entered into the system.

➢ In some instances, system "bugs" cause information from the intake and referral screens to inaccurately populate the Central Registry of Child Protection module.

➢ In some instances, provider certification information, child placement information, and service-related dates are not accurately entered by the county staff due to lack of adequate training of users and system limitations.

Fiscal Issues

Trails has the ability to generate payments for foster care and adoption providers. Each county has a fiscal group who is responsible for overseeing the provider payment process. Several of the issues identified with the payment process are listed below.

➢ There are several problems with matching provider information between Trails and the State's County Financial Management System (CFMS) that can result in erroneous payments being issued to providers through COFRS, the state financial system. At the end of our audit, information within CFMS indicated that providers owed the State about $650,000 related to problems with the interface between CFMS and Trails.

➢ In some cases, Trails has caused erroneous changes to funding source codes. This has affected whether or not counties were correctly reimbursed by state and federal funds for child welfare services.

System Requirements and Reporting

The Trails Child Welfare module was designed to collect information and report on children placed in adoption or foster care and conform to new federal reporting and system requirements. Trails was also designed to provide court documentation for Child Welfare cases, track case counts and case loads, and generate other reports to be used for management purposes.

➢ Due to inadequate training and functional deficiencies, Trails is unable to produce accurate reports to fulfill the federal Adoption and Foster Care Analysis and Reporting System requirements.

➢ Ad hoc reporting (a process by which users can create specialized reports through the use of query tools against a database) is available through Trails, but counties are limited to creating these reports from a filtered view of only their county's information, which appears to degrade the quality of information obtained.

➢ Several counties have noted that reports needed to perform analysis and case management are not available through Trails. As a result some counties are entering data into separate databases outside the Trails system.

Training

Training facilities are located in Thornton, Colorado Springs, and Grand Junction to aid in hands-on training of Trails' functionality to users. In addition, on-line help features within Trails provide users with access to resources and guides to assist them in the understanding and use of the system.

➢ Training facilities are not being used to their full potential. The Department reports that trainings are not well attended by county staff.

➢ Initial training for caseworkers was mandatory, but training in specialized areas such as fiscal issues and provider information was not provided until after Trails implementation and was not mandatory. Supervisors and administrators do not often attend training.

User Acceptance

The current design of Trails could be enhanced to reduce user frustration as well as increase user productivity. The design of the application causes delays during routine entry and processing functions and impacts the ability of users to do their jobs.

Medicaid

Trails is used to request and document Medicaid services for clients. In some instances, eligibility information is not consistent across information systems. We found cases in which Trails indicated a child was Medicaid-eligible, but the Medicaid Management Information System classified the child as covered by third party insurance and not eligible for Medicaid.

Change Management and Security

The system vendor and the State have designed a program change methodology to be used when making modifications and enhancements to Trails. However, difficulties have been associated with each system rollout. As of July 2002, there were 800-1000 outstanding system change requests.

Our audit also identified opportunities to improve security over passwords and the security settings for the Oracle Database and Unix Operating System that are related to the Trails system.

Our recommendations and the Department's responses can be found in the Recommendation Locator following this summary.

RECOMMENDATION LOCATOR

		Trails Information System Performance Audit **Recommendation Locator**			
Rec. No.	**Page No.**	**Recommendation**	**Agency**	**Response**	**Implementation Date**
1	19	Enhance the system development process for new information systems by (a) assigning clear accountability within the Department and county level for development and user testing of new systems; (b) allocating resources to review overall business processes in place prior to the new system and assessing the new system's impact on the process; (c) Evaluating the system development controls in place to help ensure designed controls are fulfilling their objectives; (d) requiring pilot testing by varying counties, including large counties and by users of all levels; (e) addressing significant problems prior to distribution; (f) patterning application interfaces after established system interfaces; and (g) developing metrics for new systems to measure critical aspects such as performance time and accuracy of transaction processing.	DHS	Partially Agree	(a) Implemented (b) Implemented (c) April 2003 (d) No date provided (e) Implemented (f) Implemented (g) Implemented

		Trails Information System Performance Audit Recommendation Locator			
Rec. No.	**Page No.**	**Recommendation**	**Agency**	**Response**	**Implementation Date**
2	24	Eliminate duplicate records within Trails and enhance input controls by (a) performing regular search processes to identify possible duplicate records and communicating results to counties; (b) providing training to counties over the process of communicating duplication errors to the State; (c) following up with counties to ensure counties are actively resolving duplications; (d) implementing an outlined, specific methodology for county staff to use during the search process; (e) enhancing the search engine; (f) implementing detection controls; and (g) establishing a process where referral information without a valid social security number would be considered a temporary record or held in a separate database.	DHS	Partially Agree	(a) February 2003 (b) March 2003 (c) June 2003 (d) Implemented (e) In process (f) In process (g) In process
3	26	Ensure information from Trails used to update the Central Registry for Child Protection (CRCP) is accurate by (a) establishing procedures to identify possible incorrect cases and make the necessary corrections for CRCP cases entered between April 2001 and May 2002 and (b) requiring workers who input CRCP information to complete specialized CRCP	DHS	Partially Agree	(a) Implemented (b) No date provided

| \| **Trails Information System Performance Audit**
Recommendation Locator \|\|\|\|\|\| |
Rec. No.	Page No.	Recommendation	Agency	Response	Implementation Date
		training.			
4	26	Enhance the Trails application to allow for a report to be generated that would display past treatment plans.	DHS	Agree	Implemented
5	27	The Department of Human Services should improve controls over the provider certification process by: a) reviewing the Trails certification process to ensure it meets state guidelines. b) ensuring county placement workers are given additional instructions, guidelines, and training over the use of provisional provider certifications within Trails.	DHS	Agree	(a) March 2003 (b) Implemented
6	28	Obtain feedback from county workers on which pull down menu options within Trails are not providing sufficient options and modify Trails to add more options as appropriate. Incorrect data should be identified and corrected.	DHS	Agree	Ongoing
7	29	Implement a system modification in Trails to help ensure that new information is immediately recognized by the system and identify and correct inaccurate data in the system.	DHS	Partially Agree	No date provided

Trails Information System Performance Audit Recommendation Locator					
Rec. No.	Page No.	Recommendation	Agency	Response	Implementation Date
8	32	Take immediate steps to investigate and resolve the $650,000 in outstanding credits within CFMS and recover all overpayments. Perform testing of provider payments made through Trails and CFMS to determine the accuracy and validity of payments issued on the basis of Trails data.	DHS	Agree	June 2003
9	32	Address interface problems between Trails and CFMS by (a) implementing modifications to correct the provider matching issues between the systems; (b) establishing provider payment limits that would allow counties to identify excessive payments; and (c) creating standard reconciliation processes to reconcile payments calculated by Trails to payments disbursed through CFMS and collect overpayments.	DHS	Partially Agree	(a) Implemented (b) To be considered by County Trails User Group February 2003 (c) No date provided
10	34	Ensure funding source codes in Trails are accurate by (a) implementing system modifications to correct the erroneous reversal of funding source codes; (b) requiring that counties submit funding source code adjustment forms for all errors identified; and (c) providing specialized training for all fiscal staff and caseworkers on entering funding source codes.	DHS	Partially Agree	Implemented

		Trails Information System Performance Audit			
		Recommendation Locator			
Rec. No.	**Page No.**	**Recommendation**	**Agency**	**Response**	**Implementation Date**
11	35	Enhance the Trails system so that updates to provider rates are automatically entered for all children currently placed with the provider.	DHS	Agree	Implemented
12	36	Enhance the system so that changes made by caseworkers do not inadvertently approve a suspended provider payment.	DHS	Agree	In process
13	36	Ensure system problems with provider payments in Trails are addressed by (a) requiring staff to report all instances of improper payments to the Trails helpdesk; (b) requiring the helpdesk to notify all counties when system problems are identified; and (c) requiring that the helpdesk provide additional instructions to workers when user errors are identified.	DHS	Agree	(a) Implemented (b) Implemented (c) June 2003
14	37	Address problems with the Augmenting Provider Payroll report by issuing instructions to the counties on how to use the correct print driver	DHS	Agree	January 2003
15	38	Ensure that provider payments under the CORE Services module are accurate by (a) performing adequate testing against a representation of the live Trails environment; and (b) evaluating suggestions and comments of users prior to implementation of the CORE Services	DHS	Agree	(a) November 2002 to start testing (b) Upon completion of step (a) above

Trails Information System Performance Audit Recommendation Locator					
Rec. No.	Page No.	Recommendation	Agency	Response	Implementation Date
		module.			
16	41	Ensure reports from the Trails system are accurate and meet requirements by (a) providing specialized training to appropriate county workers on reports functions; (b) working with the counties and other stakeholders such as the courts to identify critical reports and other reporting issues; (c) establishing procedures to solicit court jurisdictions to accept one established format for court documents.	DHS	Agree	(a) Implemented (b) Implemented (c) March 2003
17	43	Address the need for ongoing user training on Trails by (a) consulting with the counties to identify critical training needs and requiring periodic mandatory training based on job functions; (b) furnishing periodic training at the counties; and (c) requiring that supervisors and administrators attend key training sessions.	DHS	Partially Agree	No date provided
18	47	Improve user acceptance of Trails by (a) addressing system response times; (b) providing adequate staffing at helpdesks; (c) addressing system problems such as the functionality of the tickler feature; and (d) creating a communication plan regarding Trails issues to help ensure there is a forum to share ideas and discuss problems and	DHS	Partially Agree	(a) March 2003 (b) Dependent upon resources (c) Ongoing (d) Implemented

Trails Information System Performance Audit Recommendation Locator					
Rec. No.	Page No.	Recommendation	Agency	Response	Implementation Date
		solutions.			
19	48	Continue to work with the Department of Health Care Policy and Financing to improve the interface between TRAILS, COIN, and MMIS.	DHS HCPF	Agree Agree	Ongoing Ongoing
20	49	Implement the following steps to address changes to Trails: (a) involve counties in setting priorities over which system changes should be given priority; (b) establish timelines over completion dates protocol for communication to user groups; (c) use county workers from various functional areas to test changes against a "mirror" database; and (d) obtain user sign offs on test results.	DHS	Agree	Implemented
21	51	Enforce policies that prohibit the sharing of passwords and establish alternate procedures or compensating controls in instances where staffing limitations do not permit segregation of duties.	DHS	Agree	Ongoing
22	52	Enhance the current security of the operating and database management system for Trails.	DHS	Agree	June 2003

BACKGROUND

Overview of Colorado Trails Information System

The Department of Human Services (DHS) is responsible for supervising the State's public assistance and welfare programs. These programs are administered by 64 different county departments of social services throughout Colorado. Staff in the county departments determine eligibility for services and benefits in conformance with state and federal fiscal and program regulations.

The Colorado Trails (Trails) information system was developed in response to federal legislation enacted in 1993 that required states to collect more reliable and consistent information about children in adoption and foster care. The federal government made funding available to states to develop and implement automated systems to meet federal reporting requirements related to various program and fiscal data. These systems are called Statewide Automated Child Welfare Information Systems, or SACWIS. In 1997, the Department of Human Services awarded a contract to a private vendor, Dynamics Research Corporation (DRC), to develop a system to replace existing systems and meet the requirements of SACWIS.

Prior to Trails, the Department utilized the Child Welfare Eligibility and Services Tracking System (CWEST) to document provider, client, and fiscal information. However this system did not capture or track detailed adoption and foster care case information. For example, CWEST did not track demographics of families and children served, case contacts and notes, court information, Family Service Plans, visit logs, or assessments and referrals of reports of child abuse and neglect.

The Trails system is a statewide effort to automate information on services in Child Welfare and in the Division of Youth Corrections (DYC). DYC is also administered by the Department of Human Services. The Trails project was intended to streamline both record keeping and service delivery through the installation of new hardware and customized software in all of Colorado's counties, regions and facilities. Trails is a new statewide client/server network that links all state and county Child Welfare and Child Support caseworkers, supervisors and support staff, as well as Division of Youth Corrections staff. The system also provides case management support for direct client workers, decision-making support tools for managers, and access to client information across all Child Welfare and Youth Corrections populations in the state.

Colorado's Trails system is composed of all of the Child Welfare programs including Adoption and Foster Care, the Central Registry of Child Protection, and the licensing and certification of child care providers. Trails also includes a separate module for the Division of Youth Corrections. Provider payments are made through Trails on behalf of the children in Child Welfare programs. Providers include Foster Care homes, residential treatment centers, and adoptive parents. Trails is part of an integrated data system within DHS with interfaces to the following systems:

- Client Orientated Information Network (COIN), which tracks eligibility information for public assistance programs and Medicaid.
- Automated Child Support Enforcement System (ACSES), which tracks information related to child support payments.
- Child Care Automated Tracking System (CHATS), which tracks information related to subsidized childcare programs.
- Medicaid Management Information System (MMIS), which tracks claims and payments for the Medicaid program.
- County Financial Management System (CFMS), which is an interface between county departments of social services' financial systems and the State's financial system, COFRS.

Ultimately, Trails will also interface with the new Colorado Benefits Management System (CBMS) when that system is implemented in 2004. CBMS is being jointly developed by the Department of Human Services and the Department of Health Care Policy and Financing. CBMS will replace six existing systems: the Client Oriented Information Network (COIN), Colorado Automated Food Assistance System (CAFSS), Colorado Automated Client Tracking Information System (CACTIS), Colorado Employment First (CEF), Colorado Adult Protection System (CAPS), and the Children's Basic Health Plan Plus eligibility information system.

The Trails system is designed to provide automated case management. With respect to Child Welfare, Trails enables county staff to document various processes, including:

- Referral/Assessment (intake): allows for documentation of alleged abuse or neglect, family demographics, assessments, family interviews, and determinations on the status of a case.
- Ongoing case management: allows for assignment of cases to caseworkers; documentation of family information such as finances, medical and child relation information; and on-line assessments, including risk and safety assessments. Trails also allows the results of 90-day reviews of the Family Service Plan to be recorded, including the status and success of services.
- Service authorizations for providers: allows for documentation of authorization for placements for children and information on CORE and casework services provided to children and families, such as counseling services.
- Eligibility/Entitlements: allows for documentation of children and families' eligibility for other program benefits, such as Medicaid.
- Provider/Resource: allows for entry of provider certification information, such as that required for foster parents, and provider rates for payments.
- Court: allows for documentation of court information on child welfare-related cases including court case type/number, petition types, scheduled and held court hearings, hearing types, court findings and orders. In addition, motions filed can be documented in Trails.

- Fiscal information: allows for payment information to be uploaded into the County Financial Management System (CFMS), which in turn permits the issuance of provider payments in the form of electronic funds transfers from the State's financial system, COFRS.
- Central Registry for Child Protection (CRCP): allows for the documentation of founded child abuse and neglect incidents and the tracking of perpetrators.
- Staff management: allows counties to track staff information including job titles, organizational assignments, and other identifying information.
- Online management reports: provides for reports on providers, cases and client information. Most reports can be run as online reports. Others are produced on an identified schedule as batch reports.

Finally, Trails is a single database of information. Each of the 64 Colorado counties can access the system and perform the processes described above. The system also provides data for the Adoption and Foster Care Analysis and Reporting System (AFCARS) and the National Child Abuse and Neglect Data System (NCANDS). AFCARS is a federally required data submission system that is used to collect data and report on children placed in adoption and foster care. NCANDS was developed by the Children's Bureau within the U.S. Department of Human Services in partnership with the states to collect annual statistics from state child protective services agencies on child maltreatment.

Trails Implementation Schedule

The Trails project's initial rollout, which was about 18 months behind in schedule and encompassed 70% of the system's total capabilities, started in January 2001 and took four months to complete. The initial rollout included those modules used by Child Welfare, excluding the Central Registry of Child Protection (CRCP) and the Interstate Compact modules. This latter module tracks children from Colorado that are receiving services outside the State and children from other states receiving services in Colorado. The second release of the Trails system was rolled out to all counties concurrently in April 2001 and included the CRCP and Interstate Compact modules. The last rollout was completed in March of 2002 and integrated the Department of Youth Corrections modules with the Child Welfare modules. Modifications to address system problems noted in the earlier versions were incorporated with each new release. The last remaining system functionality to be implemented is the payment of CORE and casework services (in home services such as therapy or counseling) provided to families and/or children. As of July 2002, select counties began performing testing of the Trails CORE services payment process.

Trails System Costs

The cost for the Trails project, which included maintenance and employee training, was funded entirely by the state and federal governments; no county dollars were involved. Federal funding is available at a 50% matching rate for planning, design, development, installation and operation of a SACWIS. The table below documents the expenditures for

the Trails system. Federal funding is only available for the portion of Trails intended to meet SACWIS requirements, or the Child Welfare module; the DYC module was not part of SACWIS requirements and thus was paid for with state funds. The table includes penalties assessed by the Department of Human Services on the vendor, DRC, for late delivery of scheduled items under the contract.

Information in the following table was obtained from the Department of Human Services Information Technology Services' fiscal officer.

Department of Human Services Expenditures for Colorado Trails System			
Description	SACWIS	DYC	Total
Expenditures as of July 31, 2002- See note below	$53,354,100	$9,174,567	$62,528,667
State Expenditures as of July 31, 2002- See note below	$26,677,050	$9,174,567	$35,851,617
Federal Funds as of July 31, 2002	$26,677,050	$0	$26,677,050
Penalties Assessed as of July 31, 2002	$11,480	$2,520	$14,000
Note: The Department of Human Services is withholding $651,000 of the above stated amount from the vendor for not meeting certain requirements for the Child Welfare module. Another $312,000 is being withheld for the Department of Youth Corrections module. These funds will be available to DRC once the Department is satisfied that outstanding requirements have been fulfilled. Other than the withholdings, no additional payments are due to DRC.			

Portions of the DYC modules are still under warranty with DRC until December 31, 2002. Other than the issues associated with the withholding of funds, DRC has completed its contract for the Child Welfare portion of Trails; therefore the State has sole responsibility for implementing any new changes or enhancements to the Child Welfare module. All costs related to the project were paid for by the State or through federal funds. As noted above, no county dollars were spent on the project.

Audit Purpose and Scope

This audit of the Trails information system was conducted in accordance with an agreement between the Office of the State Auditor and Ernst & Young, LLP. The purpose of the audit was to review selected system controls and procedures in place to ensure the integrity and accuracy of information and reports generated by the Trails system. The audit was performed in accordance with generally accepted government auditing standards.

Our review was limited to the Trails application module implemented at the Division of Child Welfare within the Department of Human Services; this review did not include the Trails module subsequently implemented at the Division of Youth Corrections. As part

of our audit we met with representatives at the following five counties: Jefferson, Denver, Adams, Mesa, and Morgan County. We also met with training personnel, the system vendor, the DHS State Information Systems group and the system administrators. Our procedures included:

- Gaining an understanding of the Trails application.
- Review of Trails documented procedures and manuals.
- Review of the training facility.
- Review of the application controls over the input of data into the system.
- Review of county workers' access to the application.
- Review of the change management process for the Trails application.
- Review of the conversion process from CWEST to Trails.
- Overview of the Trails functionality, including processing and reporting.
- Review of the operating system and database management system security configurations.

AUDITOR'S FINDINGS & RECOMMENDATIONS AND DEPARTMENT OF HUMAN SERVICES RESPONSES

The purpose of this section of the report is to communicate our detailed findings and recommendations relative to the weaknesses and issues identified during our assessment of the Trails application. It should be noted that the findings identified within this report are not meant to include all issues facing the Trails application or DHS. The findings noted here are specific to those issues that currently, or may in the future, impact information integrity or system availability. When necessary, we have also included other pertinent issues surrounding the application.

Each finding has been categorized as either a system oversight, data integrity, fiscal, system reporting, user training, user acceptance, Medicaid, change management, or technical security (operating system/database) issue.

SYSTEM OVERSIGHT, DATA INTEGRITY, AND FISCAL INFORMATION ISSUES

System Oversight

Background

In order to obtain a vendor to develop the Trails system and meet federal requirements for Statewide Automated Child Welfare Information Systems (SACWIS), the Department of Human Services (DHS) conducted a feasibility study, which outlined the system requirements, costs and timing of the project. The federal Administration for Children and Families (ACF) reviewed and approved the study prior to the DHS soliciting bids under a request for proposal (RFP). Adjustments were made to the RFP based on discussions with interested vendors. The final RFP was approved by ACF. Three major vendors submitted proposals, which were evaluated by the DHS based on criteria outlined in the RFP. The contract was approved by ACF and awarded to Dynamic Research Corporation (DRC) in 1997.

DRC developed a requirement specification document, which was reviewed and approved by the DHS. The DHS created a database containing the system requirements in order to track and monitor the project. An independent consulting group was hired to monitor quality assurance, and this firm reported monthly to the DHS state project leader. The contract was delivery based, meaning that payment was made when DRC completed specific requirements outlined in the contract. Each requirement was reviewed by the consulting group and the DHS project leader prior to any disbursement of funds to DRC.

Findings

Although the DHS developed procedures for monitoring system development, there were not sufficient procedures in place over change management at the county level for Child Welfare business processes during the transition from CWEST to the implementation of Trails. Business procedures that were in place at the counties under the CWEST system differed significantly from the procedures required under the new Trails system. The Child Welfare business process under CWEST was mainly manual, with CWEST being used by key county employees to enter provider payment information. The Trails system implemented an automated case management system to be used by hundreds of county employees (about double the number of users from the CWEST system) in administering, tracking, and assessing services provided to children and families. Much of the information in CWEST was in different formats than that required for Trails and was limited to mostly provider information. These differences led to delays in the conversion of information from CWEST to Trails.

Additionally, the Trails system was to be used by all caseworkers, intake workers, placement workers and supervisors across the state. Many of the new users had limited experience with computers and data entry. To compound the problem, Trails is a data entry sensitive application that requires very specific protocols, and hundreds of workers

had to be trained to use the system properly. Further, initial training for county workers did not coincide with the implementation of the Trails system. Due to delays in the rollout of Trails, many county workers received training four months prior to actual implementation. As a result, county workers had forgotten much of what had been covered in the initial training.

Another difficulty was the lack of adequate user testing and acceptance of Trails prior to implementation. Specifically, there was insufficient testing of Trails in the larger counties to ensure that it would operate as intended in a more complex environment. System testing was primarily limited to smaller counties.

Finally, during the development and rollout of Trails, the vendor's Project Manager changed several times, adding to the lack of continuity of the project.

As a result of these problems, the implementation and utilization of Trails has been accompanied by a number of problems in areas such as:

- Accuracy and completeness of data, or data integrity.
- Issuance of payments to foster care providers and adoptive parents.
- Accuracy and completeness of various reports needed to monitor Child Welfare cases and manage the program.

These problems have caused county staff to develop numerous "workarounds," or methods used to "trick" or bypass Trails, in order to obtain information or accomplish other routine tasks. This has increased the workload of staff and created frustration and lack of acceptance of the Trails system by users.

It is critical that DHS address the problems identified in its system development process that have been highlighted by the implementation of Trails. The Department is involved in the development of a number of complex information systems including the Colorado Benefits Management System. This system is scheduled for implementation in 2004.

Recommendation No. 1:

The Department of Human Services should enhance its system development process for new information systems by:

a) Assigning clear accountability within the Department and county level for development and user testing of new systems.

b) Allocating resources to review the overall business process in place at both the county and state level prior to the new system and the system's impact on the process, including redesign of the process to utilize system capabilities. This should include assessing the number of users of the prior system and of the planned system and the skill levels of the users. These factors should be considered in establishing the overall timing of the implementation, the amount of training required, and the level of management oversight required to ensure the new business processes are operating effectively.

c) Evaluating the system development controls in place to help ensure designed controls are fulfilling their objectives. The Department should consider the effectiveness of controls implemented from county to county. Other factors to consider should include if the results of testing from the pilot counties can be applied to other counties. In order for the controls over the system design process to be successful, both the counties and the Department must be accountable for monitoring the development process, testing and the communication of testing results.

d) Requiring that new systems be tested by large as well as small counties. Testing should be performed by users in all departments at all levels. Both the counties and the Department should be involved in monitoring testing to identify user problems and system problems.

e) Addressing and retesting significant issues identified by users during the testing phase prior to distribution to other locations.

f) Patterning application interfaces after other established system interfaces, using similar key fields on which to match information. Testing of interfaces should consider how changes in key fields in one system would affect processing in the other system.

g) Developing metrics for new systems that would measure critical aspects such as performance time and processing of transactions (e.g., accuracy of payment amounts) against the prior process. Material variances should be investigated to identify problems with the implementation or development process.

Department of Human Services Response:

Partially Agree.

The Department believes that it follows accepted practices for system development for new information systems. These practices were in place during the Trails project. The testing of Trails occurred over a one-year period, composed of System Integration Testing (7 months), User Acceptance Testing (3 months) and Pilot Testing (2 months). Among the counties involved in User Acceptance Testing were Adams, Arapahoe, Boulder, Denver, El Paso, La Plata and Pueblo.

a) For each major project that is conducted by CDHS, there is an assigned Project Director, Development Manager, Test Manager, etc. These individuals have clear accountability for the processes and tasks under their respective area. We continue to urge the counties to participate in the development and user testing of new

systems. If we do not receive the desired level of participation by the counties, the lack of participation is escalated to the appropriate levels. Trails had a third-party Quality Assurance vendor under state management to ensure that the requirements of the project were being met. CBMS also has a Quality Assurance vendor in place, along with an Independent Verification and Validation vendor.

b) Prior to the initiation of the Trails Project, a Business Process Reengineering (BPR) project was conducted. State and county representatives participated in this project. The factors noted above were part of that process. The same process was also true for the CBMS project. The Department will continue to follow this process. However, within the Trails Project, resources were not included to deal with change management and the impact of Trails on the counties and their workers. While efforts were made by the project with available resources to try to guide the counties through the change management process, ultimately, it was left to the counties to determine how Trails would be implemented within their business processes. This has led to Trails being used differently in a number of counties. Under CBMS, resources were specifically identified within the project to work through the change management process with the counties. However, this area is constantly being questioned as to whether or not those resources are necessary and should be cut from the project budget.

c) The Department will review its system development controls to ensure that they are fulfilling their objectives. This review will be completed by April 2003. The Department has already undertaken a review of the project management processes it utilizes internally. Implementation of the first phase of these changes began as of June 2002. As noted above, the Department urges the counties to participate in all phases of the project. If the desired level of participation does not occur, the issue is raised to the appropriate levels.

d) The Trails project solicited all counties for volunteers to pilot test the system. A requirement of pilot participation was that all potential users of Trails had to be involved in the testing of the system. Large counties were not willing to commit to that requirement. During pilot testing, the project had both state and vendor staff on site at the pilot counties throughout the testing. This staff coordinated with the project site in the reporting of user problems and system problems. For CBMS, we are following the same protocol. However, as a lesson learned from Trails, a number of large counties have volunteered to be pilot counties. Arapahoe, Fremont and Broomfield have been selected as the pilot counties for CBMS.

e) Significant issues that were deemed to be system problems, not modifications, were corrected before the system was distributed to other locations. Additional releases of the system correcting these issues were distributed to the involved counties for re-test. We acknowledge that there were issues during the implementation of Trails. We have reviewed this process and have made changes as appropriate. These changes are also being applied within the CBMS project.

f) The application interfaces were patterned after the existing interfaces that were in place for the systems being replaced. The project staff met with the interface partners to review the requirements and design of the interfaces and to establish the plan to test the interfaces. We will continue to follow this process for CBMS.

g) During the testing of Trails, a matrix was developed for each screen within the system to track its performance. This was compared against the required performance measures. Deviations were noted and identified for correction. During the testing, parallel testing of the payroll processes from the legacy system (CWEST) and Trails was conducted. Material discrepancies were identified and corrected.

Data Integrity

Background

In order for any system to be effective, the user must be able to rely on the data integrity of the information maintained within that system. For example, the system should be able to accurately calculate amounts such as payments and create reports based on the data within the system. The main concern with Trails is the lack of data integrity of the system. The problems with data integrity impact a number of the other areas discussed later in this report, such as fiscal issues and system reports. The findings below document the current data integrity issues.

Findings

Duplication of Records

Trails is a sensitive application requiring users to enter information according to exact specifications. Additional controls need to be in place to identify or prevent errors. When errors are inadvertently made, they are processed through the system and affect case information and reporting. The major concern regarding data integrity is the duplication of clients and providers within Trails.

In order for the system to process data correctly and produce accurate reports, each client and provider should only be entered once. County workers can use Trails' search engine to check for existing records to see if the client or provider is already in the system. The search engine contains features to aid in the search, such as "Soundex" and "Starts With". The "Soundex" feature will look for names that sound similar to the name entered. The "Starts With" feature will look for names beginning with the same letters as the name entered. These features are intended to help the user determine if the record already exists, even if the user misspells the name.

However, we found that unless thorough search processes are performed, inaccurate results are produced. For instance, if users attempt to search for a client using the full last

name and the "Starts With" feature, they will probably find no match. If they use the first 3 to 5 letters of the last name and the "Starts With" feature, they will obtain a list of possible matches. The "Starts With" feature is a newer addition to the search engine; users are not familiar with how it works since earlier training session did not cover this feature.

The training center has established step-by-step procedures for conducting a thorough search, including searching other state systems. This search process can be time consuming, and therefore many users do not perform a complete search.

In the case of providers, Trails provides an additional control over provider searches by automatically listing possible duplications before a provider is added to the system. However, we found that many of the county users were not familiar with the process and do not understand some of the system messages intended to prevent duplication of provider records. This prevents the control from operating effectively.

Although the search capability of Trails was intended to prevent or minimize duplication of clients, the application does not force users to perform a search, therefore users can add new clients or providers without considering information already entered. During our review, we found that most counties we visited had an extensive number of duplicated clients and providers in the system. While no definite number of duplicates on the system could be obtained, based on conversations with the counties, there are a significant number of duplications within the system. There is currently no process in place to identify possible duplicate records, once they have been entered.

Counties usually identify duplicates during processing of the case, for example, when payment problems occur, when creating reports or when applying for Medicaid on behalf of a client. In order to merge or combine the duplicate records, counties must identify all possible duplicates for that client or provider and combine the information from each duplicate record into one record. This process is time consuming, taking anywhere from 15 minutes to hours. Duplicate records are primarily the result of inadequate search engine capabilities and inconsistent search processes and techniques used by Trails users.

We also identified weaknesses in application input controls that add to the problem of duplicate records. According to application design documents, Trails is designed with controls to prevent the entry of duplicate social security numbers or state ID numbers and to disallow non-alpha characters in names.

We attempted to input incorrect data on the Trails test environment using the Trails design document and our understanding of the established input controls. Based on our basic tests, we noted the following:

- We were able to assign the duplicate social security numbers.
- We were able to assign social security numbers using only 9's or 0's or 1's (e.g., 999-99-999). Social security numbers must contain more than one numeric character.

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- We were able to input a client name using only punctuation marks (!...#%&) or with numbers.

Duplicate records can have a significant negative impact on clients and providers, including the delay of timely treatment for clients and incorrect payments to providers. Duplicate records also raise information integrity issues because it may be unclear as to which record is the official record in the case of court proceedings.

Recommendation No. 2:

The Department of Human Services should eliminate duplicate records within Trails and enhance input controls by:

a) Performing regular search processes to identify possible duplicate records within the system, communicating results of these searches to the counties, and developing procedures to ensure that corrections of duplicate records are made timely.
b) Providing training to counties regarding the process of communicating duplication errors to the State for correction and providing training to county information systems staff in order that county staff can perform consolidation or merges of duplicate records.
c) Following up with counties to ensure counties are actively resolving duplications, either by notifying the Department of duplicate records or by correcting duplicate records at the county level.
d) Implementing an outlined, specific methodology for county staff to use during the search process. County staff should be trained on this methodology and the importance of doing the process thoroughly.
e) Enhancing the system's search engine to better recognize similar spelling and shortened names.
f) Implementing detection controls, such as not allowing duplicate Social Security Numbers or State IDs.
g) Establishing a process where referral information without a valid social security number would be considered a temporary record and would be excluded from certain reports and processing.

Department of Human Services Response:

Partially Agree.

a) A reporting process to identify possible duplications within Trails has been in place since January 2002. This process is run bi-weekly and reviewed by the Trails staff. Clients within Trails are not county specific. We will modify the report to identify which counties have added the client to a referral, assessment or case. The Department will complete the above change and begin distributing the report on a weekly basis to the counties beginning February 2003.
b) A process has been in place since the completion of the rollout of Trails in May 2001 to eliminate duplicate records in Trails. Additionally, enhancements are

being made to Trails to identify potential duplicate records to the users before a client record is added to the system. These enhancements are scheduled to be completed by March 2003.

c) Training has been made available on a limited basis to counties interested in doing their own merges. We will expand this process to all other counties by June 2003.

d) This training has been available to the counties since the implementation of Trails. Additionally, user desk guides have been provided to Trails users that outline the search methodology.

e) Enhancements were identified for the search engine. These have been presented to the state and county user groups for prioritization at the July 2002 meeting.

f) Enhancements for additional detection controls will be presented to the state and county user groups for prioritization at the January 2003 meeting.

g) At the referral stage, limited information may be known for a client. It is important to track referrals and assessments through the system from the very beginning to ensure that the child is properly protected and for the system to comply with state and federal regulations. However, a design review of when a client should be added to the centralized client database will be conducted. The results will be presented to the state and county Trails user groups for review and prioritization in February 2003.

Central Registry of Child Protection

The Central Registry of Child Protection (CRCP) module within Trails tracks information on instances of child abuse and neglect, including information on both the victim and the perpetrator. This module is to be updated based on referral information entered by county users into intake and referrals screens that are separate from the CRCP module.

However, up until May of 2002, information used by Trails to update the CRCP module did not always agree to information entered by county workers into the intake and referral screens. In one case, we noted that codes entered by the investigation case managers were incorrectly processed by the system. This resulted in a person being wrongly identified as the perpetrator of the abuse in the CRCP module. If a child has multiple incidents of abuse or neglect in Trails, the information within the CRCP module may show mixed information and list the wrong allegations and severity levels.

The CRCP issues described above have been identified by the Department of Human Services and corrections have been applied. According to the counties, it appears this problem has been corrected. However, on the basis of our discussions with the Department, although the system correction put in place will prevent future occurrence of the problem with the automated updates, the process did not perform corrections for any cases in which information was entered into CRCP between April 2001 and May 2002.

During our review, we noted that many workers were not familiar with how Trails was being used to record CRCP information. Many workers were frustrated that they could not update the CRCP module when new information on the case was available. SACWIS requires that CRCP information should not be changed once submitted in order to maintain continuity over the information. If there is a change in the case, county workers should contact CRCP personnel with the change.

Recommendation No. 3:

The Department of Human Services should ensure that information from Trails used to update the Central Registry of Child Protection (CRCP) is accurate by:

a) Establishing procedures to identify possible incorrect cases and make the necessary corrections for CRCP cases entered between April 2001 through May 2002. This should include quality review procedures that compare a sample of CRCP cases to source documents such as police records or other databases.
b) Requiring those workers who input CRCP information to complete specialized training for CRCP on data entry.

Department of Human Services Response:

Partially Agree.

a) This has already been accomplished.
b) Specialized training for CRCP data entry has been offered every month since May 2001. Any additional effort within the CRCP area will be dependent upon decisions about the future of the Central Registry. The Department will continue to strongly urge counties to have their staff attend training.

FSP Treatment Plan Screen

County caseworkers use the Family Service Plan (FSP) screen within Trails to outline treatment and service objectives for all family members, such as childcare services or counseling. We found that if the FSP changes or additional objectives are added, Trails will only display the current plan. As a result, caseworkers cannot view past plan documentation for children and families. Not being able to review past treatment plans within Trails may result in lack of services or provision of duplicate services.

Recommendation No. 4:

The Department of Human Services should enhance Trails to allow for a report to be generated that would display past treatment plans.

Department of Human Services Response:

Agree.

Enhancement requests to display the history for the various FSP sections, including treatment plans, are already on the modification list for Trails and are being prioritized by the state and county Trails user groups.

Provider Provisional Certification

We found that lack of adequate training has resulted in workers entering inaccurate information into Trails for providers with provisional certifications. It is the understanding of many county workers that Trails does not allow providers on the system, such as foster parents, to be selected for placement of children before the provider is fully approved or certified. State policy allows for placements to providers with provisional certifications. Provisional certifications can be granted when the provider is missing certain requirements, such as a Cardiac Pulmonary Resuscitation certification (CPR). According to our discussions with the Training group, Trails recognizes provisional certifications and will allow for clients to be placed with these providers using specific state guidelines.

We found instances in which county workers input invalid approvals for a provider, inappropriately waived a requirement, or approved a requirement when the provider has not completed it in order to place a child with a provider that has a provisional certification. This causes providers to be incorrectly classified in Trails as fully certified.

Recommendation No. 5:

The Department of Human Services should improve controls over the provider certification process by:

a) Reviewing the Trails certification process to ensure it meets state guidelines.
b) Ensuring county placement workers are given additional instructions, guidelines, and training over the use of provisional provider certifications within Trails.

Department of Human Services Response:

Agree.

a) The Division of Child Care and the Division of Child Welfare are defining specific business rules for provisional and probationary certificates and licenses. Trails will be modified to incorporate those new business rules. The Division of Child Welfare is planning to issue an agency letter to clarify policy as it relates to recording licenses in Trails. Additionally, a number of CDHS Volume 7 rules will need to be revised. The Division of Child Care and the Division of Child Welfare will work together to ensure that providers and their services are handled

consistently in Trails, regardless of the licensing authority.
b) Specialized training for the Resource/Providers function within Trails has been offered every month since June 2002.

Pull Down Menu Options

Trails contains pull down menu options to complete certain screens. We noted that some screens did not contain valid options; therefore workers were completing the screens using the "closest" choice. We also noted that counties will vary on the choices they select. Below are some examples to illustrate this problem.

Within the court screen, court motions can be documented. However, the pull down menu option does not include all the applicable motion types, and a comment field is not available within this screen to allow workers to document the correct motion.

Within the child placement screen, county placement workers are not provided with the correct options for certain pull down menus. For example, if a child goes to the Department of Youth Corrections, that option is not available for selection on the screen. Instead the worker must choose another option that is not accurate, such as "reunited with parent," in order to process the case in a timely manner. The placement field is a required field and must be completed with one of the listed options.

When workers choose invalid options in order to complete tasks and enable the Trails system to continue processing, it affects the accuracy and integrity of the information in the system and could affect decisions made about the case.

Recommendation No. 6:

The Department of Human Services should obtain feedback from county staff to determine which pull down menu options within Trails do not contain all the necessary options. The Department should either modify the menus to add more options or enhance Trails to allow comment fields. In addition, the Department should work with the counties to identify and correct inaccurate data entered into Trails due to limitations in pull down menu options.

Department of Human Services Response:

Agree.

Pick lists can be modified upon mutual agreement of state and county staff in accordance with federal and state requirements and regulations. Changes must be approved based upon rule and policy. Some have already been changed. We will work with counties to continue to identify where changes may need to be made. For approved changes, we will work with counties to identify and, where possible, correct existing data entered into Trails.

Invalid Dates

Trails contains information such as provider rates, start and end dates for services, and service types that apply to each case. This information is used to calculate payments to providers. The start and end dates indicate the length of time the child received the service.

In certain situations, Trails will not properly recognize a provider or rates and will generate incorrect payments during processing. This is due to a system problem in which new information is not always immediately recognized by the system. These payment errors (e.g., a provider not being paid or being paid incorrectly) are usually identified by fiscal workers during their review of the trial provider payroll report, prior to the final run of the provider payroll. In order to correct these errors or refresh the system, fiscal workers report that they perform a "workaround" by increasing the rate and changing it back in order to re-approve or refresh the correct rate, or by end-dating a service and staring a new service line for a client. In addition to the risk of inaccurate provider payments, these workarounds can result in inaccurate data being collected within Trails with respect to service end dates and can result in errors in key reports such as the "Length of Stay" report.

Recommendation No. 7:

The Department of Human Services should implement a system modification in Trails to help ensure that new information is immediately recognized by the system. In addition, the Department should work with the counties to identify and correct inaccurate data entered into Trails due to limitations in the system's "refresh" function and correct any erroneous payments identified.

Department of Human Services Response:

Partially Agree.

Correct dates and rates are recorded and immediately recognized by Trails when entered. However, depending on the nature of these changes, a Supervisory re-approval may be required, especially in the case where the payment would increase for the provider. If the re-approvals are not done prior to the final payroll the provider may not be paid or be paid for the old span or for the old rate. If the counties are following the guidelines that have been provided for re-approving provider services, inaccurate data and reporting would not be an issue. We are working with the counties to identify a more efficient process for this area. Also, specialized training for the Resource/Provider functionality within Trails has been offered monthly since June 2002.

Fiscal Issues

Background

Trails contains a fiscal module that periodically creates a file containing provider payment information. This information is uploaded into the County Financial Management System (CFMS), which results in payments being issued to providers in the form of electronic fund transfers. The payment file generated from Trails is referred to as the provider payroll. Provider payrolls are created based on service dates, rates, and child placement information entered into Trails by county workers.

Counties run a trial provider payroll on an "as needed" basis and review payments for accuracy based on invoices and prior remittances to providers. The counties will make corrections to the payroll based on these reviews. Corrections must be posted before the payroll is run. Provider payroll is automatically processed through an interface with CFMS, and providers are paid on the 15th of each month.

Currently, Trails pays primarily for providers in the foster care, kinship placements, residential treatment centers, and subsidized adoption programs. Plans are in place to pay all other CORE services, such as mental health treatment, therapy and daycare through Trails.

Findings

The counties have encountered numerous problems when processing provider payrolls through Trails. These include improper provider payments, changes in funding source codes, provider rate changes, provider name changes, child name changes, service date changes, and most notably, interface issues with the CFMS system.

CFMS Interface with Trails

Trails can create credits and debits through the provider payroll process in order to adjust for the length of time that a child has been placed with the provider or other factors. The current process matches provider information from Trails to CFMS by provider name and tax ID number or social security number. If a match is not found within CFMS for both the provider name and tax ID number or social security number, CFMS will create a new vendor record and process the payment. In cases where the provider name has changed, this can cause outstanding credits within the CFMS system that are not associated with the previous provider name.

For example, if a provider has an outstanding credit, or overpayment of $100 within CFMS, this amount should be deducted from the provider's next payment. However, if that provider's name was changed within Trails (e.g., through marriage or an organization name change), CFMS will not be able to match both the provider name and tax ID or social security number. Therefore, CFMS will issue the payment under a new

vendor number, causing the provider under the new name to be paid the full amount without deducting the outstanding credit of $100 under the previous name.

This situation is further compounded by the fact that previous payments are sometimes "taken back" from providers when their names are changed within Trails, or in adoption cases when the child's name changes. CFMS holds all the fiscal history, including payment information, for each vendor or provider. When a provider's or a child's name is changed within Trails, CFMS treats the past payments under the previous provider name as an error and creates a credit in both CFMS and the Trails system for the past payment amounts. CFMS will then pay the provider under the new name for the amounts previously paid under the old provider name, thereby causing the provider under the new name to be overpaid. For example, in one case we noted, a county worker changed the provider's name from the wife's name to the husband's name. The worker typed the new name and social security number over the previous provider's information screen. This caused CFMS to issue a credit against all the funds previously paid under the wife's name, in effect taking back all previously issued payments under the wife's name. The prior payments were then paid again under the husband's name. In other words, the husband was paid for both the current period and all of the past periods. The Department reports that it pays out approximately $13.5 million dollars each month to providers throughout the State. The Department has calculated as of July, credits held with CFMS indicate that providers owe the DHS $650,000 for inaccurate payments.

In March 2002, DHS developed procedures instructing counties to use the "Unpaid AP Invoices Detail" report generated by CFMS to identify outstanding credits and possible duplicate providers within CFMS. The Department relies on the counties to provide instructions as to which providers within CFMS should be consolidated. DHS will then perform the consolidation of those duplicate providers within CFMS.

Per the Department, approximately 400 duplicate provider records have been identified and corrected to date.

In addition to the interface problems, we noted that controls over provider payments need to be enhanced. Currently CFMS does not have a range check to identify unusual or large payment amounts. This means that any amount requested through Trails for payment can potentially be paid. CFMS or Trails should have controls or reports that will identify excessive payments to an individual provider. Payments over established limits should be suspended until county workers confirm that the amount is accurate. County workers should review these over the limit reports in order to identify significant variances, and investigate and resolve these variances prior to issuing provider payments. These enhancements will help prevent potential overpayments.

The interface problems between Trails and CFMS and the lack of adequate controls present the potential for fraud, abuse, and irregularities to occur within the Child Welfare program. The Department should address these concerns as soon as possible.

Recommendation No. 8:

The Department of Human Services should take immediate steps to investigate and resolve the $650,000 in outstanding credits within CFMS and recover all overpayments. In addition, the Department should test a sample of provider payments made through Trails and CFMS to determine the accuracy and validity of payments issued on the basis of Trails data. All exceptions identified should be investigated and resolved. The results should be evaluated to determine the need for more extensive testing of provider payments.

Department of Human Services Response:

Agree.

The Department agrees that it is important to recover the overpayments. As these issues have been identified, the Department has worked and continues to work with the counties to resolve them. As of October 2002, the total amount outstanding had been reduced to $592,000. Additionally, Trails generates on average $13,600,000 in payments a month. During the same period generating the $650,000 in overpayments (June 2001 to July 2002), Trails generated $191,000,000 in payments, or in other words, the overpayments represent less than one-half of 1 percent (0.3 percent) of the total payments paid out for the period.

Existing county and state reports are available through CFMS and Trails and provide the necessary information needed to identify and resolve provider payment problems. We continue to work with the counties to determine the accuracy and validity of their payments. A number of the services recorded in Trails have been evaluated against what was paid through CFMS. These payments proved to be accurate and valid.

The Department recognizes that accurate payments to providers are critical. Prior to any release of Trails, extensive testing is conducted within the fiscal area to ensure that the provider payments are being generated accurately.

Recommendation No. 9:

The Department of Human Services should address interface problems between Trails and the CFMS and improve controls over provider payments by:

a) Implementing modifications to correct provider matching between the two systems. Provider information should be matched using one unique identifier such as the tax ID number or social security number.
b) Working with counties to establish provider limits that would be included on the trial payroll, allowing counties to identify excessive payments prior to the final payroll process.

c) Creating standard reconciliation processes to reconcile payments calculated from Trails to payments disbursed by CFMS. Procedures should include collection of any overpayments. Both the counties and the Department should be involved in the reconciliation and collection process.

Department of Human Services Response:

Partially Agree.

a) A change was made in both CFMS and Trails in September 2002 to address this issue. The results of the changes have been effective and are operating as prescribed. 193 duplicate provider records remain to be corrected and work continues on correcting them.

b) This recommendation will be presented to the County Trails User Group at their February 2003 meeting for consideration and prioritization for a modification within Trails.

c) CDHS accounting staff currently reconcile Trails payments to the CFMS general ledger. The Trails payment reconciliation was expanded to include reconciling Trails payroll amounts to Citicorp beginning with the July 2002 period.CDHS will make available to all counties completed reconciliation support via e-mail. According to Volume 7 rules, the counties are responsible for the collection process. CDHS has and will continue to assist the counties with this process.

Funding Source Changes

The funding source code associated with each service a client receives indicates the parties responsible for funding the provider payments: the county, state, or federal government. Within Trails the default code is "WRI" (without regard to income), which indicates the state and county are responsible for the provider payment; these cases are nonreimbursable by the federal government. For cases with "IV-E" funding source coding, the services qualify under the federal Foster Care program and the federal government will reimburse a percentage of the cost. County fiscal workers check the trial provider payroll to ensure that the correct funding source code is applied to each service prior to processing the final provider payroll.

In some instances, the funding source code in Trails is erroneously changed by the system from IV-E to WRI during the final payroll process. When this occurs, counties must undergo a lengthy investigation and a time-consuming request process by completing the State Administrative Adjustment (SAA) request form to receive the correct reimbursements. These changes to funding source codes appear to be caused by early problems with how Trails was reading funding source information. Under the legacy CWEST application, which was a client-based system, each client could only be associated with one funding source code. Within Trails, which is a case-based system, each client can have multiple funding source codes based on the number of services the client is receiving. In other words, in Trails eligibility workers can assign different

funding codes according to the different services the client receives, rather than by client. In order to ensure that the correct funding source code is used for the provider payroll, Trails performs a selection process based on a pre-determined code hierarchy.

Prior to May 2001, Trails was incorrectly reading this funding source code hierarchy for cases converted from the CWEST system. This caused unintended funding source code changes to occur during the provider payroll process. A modification addressing this problem was installed in May 2001, which remedied these types of errors. However, for existing cases as of May 2001, the modification was activated only when a change was made to some aspect of the case, for example, if a child was placed with a different provider or the provider's payment rate was changed. There are a number of cases that existed prior to the modification in May 2001 that have not had any change made to them. When a change is finally made to one of these older cases, the May 2001 modification should initiate and make the necessary corrections to the current service codes only. However, we noted that when a case has an IV-E funding source code, Trails is incorrectly reversing the source codes back to the conversion date, instead of just correcting the current codes.

Inaccurate funding source codes result in provider payments being funded by the wrong source of funds. For example, if a case is erroneously coded WRI, the county and state will pay for services that should be funded at least in part by the federal government. Similarly, if a case is erroneously coded as IV-E, the federal government is improperly charged, which would result in disallowed costs to the State.

Recommendation No. 10:

The Department of Human Services should ensure that funding source codes are accurate in the Trails system by:

a) Implementing a system modification to prevent IV-E codes from being incorrectly reversed. Modifications to correct the problem should be tested to help ensure correct funding codes are not adversely affected.
b) Requiring that counties submit funding source codes adjustment forms for all errors identified and following up on all such requests in a timely manner.
c) Providing training to all fiscal staff and caseworkers to ensure counties are appropriately entering funding source codes. Training should use "real" life examples and include time for feedback and questions.

Department of Human Services Response:

Partially Agree.

a) A system modification was implemented and the Department believes this issue has been resolved. The Department will continue to research and respond to any future report of problems in this area. Regression testing of Trails is part of the standard process of the Department. Additionally, we have invited counties to

participate in the regression testing prior to a release of Trails to ensure that existing functionality is not impacted by the changes being implemented. This was instituted in December 2001.

b) The State Administrative Adjustment (SAA) process through CFMS has been in place since the rollout of Trails. Counties have the responsibility to complete SAAs through an online form in CFMS when an automated entitlement change cannot be made through Trails. This is not a form maintained in the services record. The CFMS entry is maintained online until processed. Once processed, the entitlement change can be verified by reviewing the child fiscal history report in Trails.

c) The Trails training group has been offering a Fiscal specialty training course and an Exploring Fiscal workshop every month since October 2001.

Changes in Provider Rates

We determined that when provider rates change, Trails does not automatically change the rate for the children already in placement with that provider. The worker must go to each child's screen and "trick" the system into changing the rate. We observed that workers accomplish this by putting in an end date for the provider and then changing the date back to zero, or assigning new services and then removing them. This causes Trails to assume that a new approval is needed for the provider. This will allow the new rate to be assigned for that placement. If a provider has ten children in placement, this can be a very time consuming process. This problem also contributes to the data integrity issues mentioned earlier, since inaccurate data regarding services is deliberately entered into the system and may not be removed.

Recommendation No. 11:

The Department of Human Services should enhance the Trails system so that updates to provider rates are automatically entered for all children placed with the provider.

Department of Human Services Response:

Agree.

This was identified as a problem under some circumstances. The problem has been corrected.

Provider Payroll Suspensions

County fiscal workers have the ability to suspend provider payments. However, if a caseworker goes into the case while a payment is in suspense and makes any changes to the record, the payment will be automatically be approved, thus invalidating the suspended status. This can cause invalid payments to be issued to providers.

Recommendation No. 12:

The Department should enhance the Trails system so that changes made by caseworkers do not cause a suspended provider payment to be inadvertently approved.

Department of Human Services Response:

Agree.

Original design of Trails called for all payments to default to unapproved versus approved. The county fiscal worker would then approve the payments for the payroll processing. However, input from state and county users indicated that it would be more efficient for the county fiscal worker if they only had to identify the payments not to be paid. Therefore, the default for payments was changed to approved. A modification request for the above recommendation was submitted in July 2002 to the state and county Trails user groups and is being prioritized by these groups.

Instances of Unknown Causes for Improper Provider Payments

During our review we noted several instances where provider payments were incorrect or duplicated, and the cause for the problem had not yet been determined. In one example, we noted a provider placement was end-dated in November 2001, yet the provider was still receiving payments. The county opened a helpdesk ticket, but the exact problem has not been identified. In another case, a provider was receiving a duplicate payment under one service code. Again, it was unclear what caused this situation.

Recommendation No. 13:

The Department of Human Services should ensure system problems with provider payments in Trails are addressed by:

  a) Requiring that staff report all instances of improper payments to the Trails helpdesk.
  b) Requiring that the helpdesk notify all counties when system problems are identified.
  c) Requiring that the helpdesk provide additional instructions to the worker and relay these instructions to the other counties, when user errors are identified. In cases where overpayments have occurred, the Department should work with the counties to help ensure that these amounts are recovered.

Department of Human Services Response:

Agree.

 a) It is the established procedure that any problems or issues with Trails must be reported through the CDHS Helpdesk before the problem will be addressed.
 b) The Helpdesk utilizes a list server to notify all Trails' county contacts when system problems are identified.
 c) The Helpdesk will develop processes and procedures to provide information to users concerning user errors by June 2003. Additionally, the information will be forwarded to the Trails Training group for incorporation into the Trails training courses. According to Volume 7 rules, the counties are responsible for the collection process. The Department will continue to assist the counties with this process.

Augmenting Provider Payroll Report

The Augmenting Provider Payroll is run shortly after the main provider payroll and includes providers with adjustments or those with special circumstances. When the augmenting payroll report is run, the report often contains blank lines and is missing information. Therefore, fiscal workers are unable to perform adequate review of provider payroll information prior to the issuance of payments. Per the helpdesk group, this problem appears to be due to a print driver problem.

Recommendation No. 14:

The Department of Human Services should address the problems with the Augmenting Provider Payroll report by issuing instructions to the counties on how to use the correct print driver.

Department of Human Services Response:

Agree.

We will re-issue the Trails installation guidelines and installation instructions to the appropriate counties by January 2003.

Implementation of CORE Services Module

During our county visits we noted that counties were concerned about the rollout for the CORE services module, which is undergoing testing and scheduled for implementation in the fall of 2002. This module will enable Trails to generate payments for services such as mental health therapy, daycare, and other day treatment facilities.

Due to the present problems with provider payments under Trails, it is imperative that the CORE services module be adequately tested prior to implementation. Otherwise, the new

module will exacerbate existing problems and result in additional workload and user frustration.

Recommendation No. 15:

The Department of Human Services should ensure that provider payments under the CORE services module are accurate by:

a) Performing adequate testing against a representation of the live Trails environment. Testing of the module should be completed by county users of the Trails system and users of the CFMS system.
b) Evaluating suggestions and comments of users performing the testing, prior to implementation of the CORE services module.

Department of Human Services Response:

Agree.

a) The Department agrees that the Child Welfare Release 3 functionality should be fully tested before it is implemented. Adams, Arapahoe, Jefferson and Elbert counties will be involved with the user testing of this module. Pueblo County will be the pilot test county. The testing will be conducted against a mirror image of the live Trails environment.
b) Based upon the results of the above testing and input from the participating counties, the Department will determine when statewide implementation will occur.

SYSTEM REPORTS, USER TRAINING, USER ACCEPTANCE, AND OTHER ISSUES

This chapter addresses the Trails system's reporting capabilities, adequacy of the training provided to users of the system, and user acceptance of the Trails system.

System Requirements and Reporting

Background

The Department of Human Services must have the ability to produce various reports and assessments to satisfy court, state, and federal requirements. These include federal requirements for Statewide Automated Child Welfare Information Systems (SACWIS), Family Service Plans (FSP), assessments related to Child Welfare, the Adoption and Foster Care Analysis and Reporting System (AFCARS), and the National Child Abuse and Neglect Data System (NCANDS). In order to manage cases and administer the Child Welfare program, counties must track caseloads by caseworkers, opened and closed cases, placements with each provider, and other information for analysis and case management. In addition, the counties must have the ability to generate reports in order to receive funding from state and federal sources as appropriate. In addition to standard reports, Trails can be used to generate ad hoc reports with county-specific data.

Findings

The reporting process within Trails does not provide accurate data and does not fully meet various state and federal requirements. In addition, the system does not provide accurate information to the counties for case management purposes.

Adoption and Foster Care Analysis and Reporting System (AFCARS) Requirements

The Department's system for managing information under the Foster Care and Subsidized Adoption programs, known as AFCARS, must meet various state and federal requirements. These include documentation on the removal of children from the home and children's disabilities and cultural needs. However, this information is not consistently documented in Trails because many workers are not clear on where to record these items. This results in inconsistencies in the documentation process of AFCARS requirements among counties. Additionally, certain required AFCARS fields, such as the end dates for removal of children from a home, are routinely altered as part of workarounds to compensate for Trails' functional deficiencies with respect to issuing provider payments to foster care parents and to families receiving subsidized adoption payments (see Fiscal Issues section).

Ad Hoc Reporting

Ad hoc, or user defined reports are created by running a query against a database or a collection of data, and can be run at anytime by users with access to the query tools.

Predefined reports, on the other hand, are based on predetermined logic and cannot be altered by the average user. Counties have the ability to run ad hoc reports, but counties are limited to a filtered view of only that county's information.

During our county visits we observed the county Information Systems groups running ad hoc reports. We noted that reports contained duplicate client information or did not contain complete information. One report generated on the number of open referrals for services for the month only showed four referrals for the county, when in fact there were over 100 referrals noted. This problem appears to be due to the filtered view on which each county's reports are generated, which limits the information in Trails that can be accessed for ad hoc reports. County workers reported that when the same ad hoc reports are run by the State's Information Systems group using the entire Trails database, the reports appeared to be more accurate.

Case Management Requirements and Funding Information

Because of problems with obtaining accurate and complete information, several counties are entering data into separate databases outside the Trails system in order to produce accurate reports on caseloads and assignments. Accurate information is needed in order for the counties to submit caseload data to the state and federal government and receive funding from those entities. This double entry of data increases counties' workloads and opportunities for input errors.

Court Requirements

Our review also noted that Trails does not provide adequate reporting functionality to satisfy court requirements. For example, several counties do not utilize the Family Service Plan (FSP) reports because Trails does not provide formatting accepted by the courts. Currently, each court requires Child Welfare information to be formatted differently. Also, documents needed by the courts such as risk assessments, safety assessments and the North Carolina Family Assistance Scale screens within Trails cannot be printed as reports. Therefore, staff must manually write out this information and calculate results in order to provide it to the courts.

In addition, Trails reports that are generated for court purposes have to be printed out in their entirety and cannot be limited only to sections that are of interest or required by the courts.

Other Factors Affecting Reporting

Other issues discussed earlier in this report add to the inaccuracy of the Trails reporting, such as the duplication of client and provider records within Trails (Data Integrity Section). Reporting errors also occur as a result of caseworkers entering invalid dates and information as "workarounds" in order to force Trails to process cases timely (Fiscal Issues Section). Additionally, each time a case is transferred to another worker, the

application associates that client with each worker; therefore the same client will appear multiple times in the report under different caseworkers.

Overall, the inability of Trails to produce adequate reports has resulted in the continued use of manual procedures and processes. Furthermore, if counties are completing risk or safety assessments for children or families offline, other counties will be unable to view the complete file of a client. This results in county workers making phone calls and sending hardcopies to other counties to share the information. Finally, by completing child assessments both online and manually, there is some risk that assessments may not be prepared or scored exactly the same in both instances. This could have an impact on the integrity of information available for decision-making and thus affect the services and treatments provided to clients.

In general, the lack of accurate reports and the need for users to maintain two sets of data is a poor use of personnel resources, undermines user acceptance, and does not meet the basic goals of Trails to provide a statewide system for case management and streamline record keeping and service delivery, while meeting the required reporting criteria.

Recommendation No. 16:

The Department of Human Services should ensure reports from the Trails system are accurate and meet requirements by:

a) Providing specialized training to appropriate county workers on reports, including instructions on AFCARS and NCANDS requirements.
b) Working with the counties and other stakeholders to identify critical reports and other reporting issues, such as court-required formats and ad hoc reporting limitations. The Department should establish agreed upon priorities and timelines for addressing reporting concerns.
c) Establishing procedures to solicit courts to accept one established format for court documents.

Department of Human Services Response:

Agree.

a) A specialty training course on Trails Reports has been offered each month since October 2001. The Department is meeting the federal reporting requirements for both AFCARS and NCANDS. Currently, the inaccuracies are contained within five or fewer of the 100 data elements. We are continuing to improve training, understanding by the users and the programming that generates these reports to eliminate these inaccuracies.

b) A reports workgroup was formed in June 2001. The results of the workgroup were given to the County Trails User Group in July 2002 to prioritize the issues. Since November 2001, the Department has met regularly with the county-designated ad-hoc reports group to discuss and develop ad-hoc reports desired by the counties. The ad-hoc reporting database will be changed by February 2003 to give the counties a full view of the data.

c) We will establish procedures by March 2003.

Training for Users

Background

The Department of Human Services has established three training sites throughout Colorado located in Thornton, Colorado Springs and Grand Junction. All Trails users were required to complete a training course for Trails. Initially, training focused on caseworkers. Training classes now have been expanded to include specialization classes in different types of reporting (e.g., fiscal, provider, or adoption reporting). Additionally, open houses are held so users can bring questions and work one-on-one with a trainer.

The training schedule for each of the three locations is posted on the Trails web site. A vendor under contract with the Department of Human Services provides training on the Trails system. A state manager supervises the training facility and instructors.

Findings

User training on Trails was not coordinated with system implementation. Due to delays with the initial implementation, the majority of users received training on Trails about four months prior to implementation and rollout. Thus, most users received the training long before they could use Trails on a daily basis. As a result, most of what users learned was not retained. In addition, workers encountered numerous problems not addressed during training, and the training did not cover specialized areas such as fiscal and provider issues.

User attendance at specialized training sessions and open houses has been weak to non-existent. Administrators and supervisors rarely attend training. Counties report that the lack of attendance at training sessions is due to time constraints and to the increased workload they have encountered with Trails because of various system problems.

User manuals have not been updated as new releases of the system have been rolled out. Periodic e-mails have been sent out on modifications, and the online help functionality is available to all users. In order to address the need for training materials, some counties have compiled their own, additional materials. For example, Adams County has detailed training materials and guidance, including an Intranet site with step-by-step procedures for using Trails. Most counties have tip sheets, workaround procedures and notes to help

users. Local county helpdesks have also assisted in limiting the impact of the difficulties encountered by workers.

We noted problems in various areas that were caused by users' lack of knowledge about the correct manner in which to utilize Trails. For example, if users employ inadequate search procedures when entering clients or providers, they can contribute to the problem of duplicate client and provider records in the system. Training issues must be addressed in order to help ensure that Trails is used properly and effectively.

Recommendation No. 17:

The Department of Human Services should address the need for ongoing user training on the Trails system by:

a) Consulting with the counties to identify critical training needs and requiring periodic mandatory training for users based on job functions.
b) Furnishing periodic training at the counties to provide on-site support and availability to individual users.
c) Requiring that supervisors and administrators attend key training sessions in order to increase their knowledge of Trails and help ensure employees are properly using the system.

Department of Human Services Response:

Partially Agree.

Trails was implemented over a four month period, January 2001 through April 2001. The users in the first month of implementation were impacted by the delay in the implementation and were trained three months prior to their implementation. This group of users was less than 25% of the total number of users to be trained on Trails. To accommodate for the delay in the start of the implementation, refresher training was offered to these users in mid-December 2000 and early January 2001, prior to their Trails implementation. The users did not take advantage of the refresher training. All other users were trained within one month of their county's implementation date.

Training classes, both regular and specialized are offered each month at all the established training sites. In addition to formal classroom training, each month an Open House session and an Exploring Trails session are offered. During the Open House session, users are free to practice on Trails in a "safe" environment. A Trails trainer is available to assist participants. Exploring Trails sessions are designed as a sharing opportunity. A Trails Trainer acts as a facilitator to encourage a group exploration of the Trails issues brought to each session. Some sessions are topic specific, while others are general in nature.

a) The counties have the opportunity via the County Trails User Group, the Helpdesk or through Trails project management to identify critical training needs. The Department will continue to strongly urge the counties to send their staff to training.

b) Three regional training sites have been established for Trails training, Thornton, Colorado Springs and Grand Junction to provide training to the greatest number of users possible with the available resources in the most cost efficient method. It is not cost effective, especially with the current state budget issues, for the Department to send staff out across the state to each county office to do on-site support to individuals. On occasion, we have provided on-site training and support to counties when requested and when resources were available. We will continue to provide this level of on-site training and support to counties when requested within available resources.

c) Training has been and continues to be offered to supervisors and administrators. The Department will continue to strongly urge the counties to send their staff to training.

User Acceptance

Background

User acceptance is an important part of workplace dynamics. If employees do not have confidence in the tools and procedures they are using to perform their jobs, the result can be low productivity, increased overtime and high job turnover.

Findings

Trails users have experienced a series of events that have lead to low user acceptance of Trails. This includes lack of communication from the State, problems with training as described above, system problems requiring numerous workarounds, instances of poor application design, and lack of timely response from the helpdesk. Issues described below add to user frustration and the users' lack of acceptance of Trails.

Slow Application Response Time

System response time is the ability of the application to respond to user inputs. As a user interacts with Trails, it should provide timely responses. During our county visits and per interviews with various staff, we noted sporadic response times from Trails during the following functions.

- Searching for current workloads (listing of the cases assigned to each worker or supervisor).
- Choosing items within a pull down menu.
- Searching for duplicate clients and providers.

- Pulling up supervisor workloads.

Based on our discussion with the Trails vendor, Dynamic Research Corporation (DRC), the primary causes were due to an index issue on workload screens, insufficient computer system memory, and the recent rollout of DYC version 11. Toward the end of our assessment of Trails, we noted that DRC had addressed some of the above issues, and has improved the overall response time. However, the application response time is still noticeably slow and does not always meet the below established goals, which were identified in the original Request for Proposal issued by the Department.

- Searching for known client information: 6 seconds 95% of the time,
- Searching for unknown clients: 12 seconds 95% of the time,
- Obtaining reports after pressing the print button for existing reports: 15 seconds 95% of the time,
- Interactive data entry: 3 second pauses between screens 95% of the time.

Slow responses from the application have had a significant impact on employee productivity. We noted numerous instances in which the system took several minutes to respond to user requests. This adversely affects users' ability to fulfill job responsibilities and complete work efficiently. More importantly, it causes significant user frustration and lack of acceptance of the application.

While there have been improvements in the overall response time, counties report that caseload screens are still taking considerable time to load. Additional efforts are needed to ensure Trails is meeting established goals for system response times.

Helpdesk

Each county establishes its own policy for how users' problems with Trails will be addressed. Larger counties have their own Information Systems (IS) group who are required to be the first point of contact when users encounter system problems. If county IS staff cannot answer the user's question, they will contact helpdesk staff, who will create a help ticket. Counties report that in many cases the helpdesk does not reply for several days.

When users do not receive timely responses, productivity and their acceptance of the system can be affected. Delays in responses also can mean that the system continues to be used improperly. Furthermore, users are more likely to create their own corrections, which could create other problems and lead to data integrity issues.

Non-Functioning Tickler System

Trails provides a "tickler" feature that allows workers to track open items related to a case. The tickler feature is intended to act as a control to help ensure all required documents, interviews and paperwork related to a case are obtained. During our visits to the counties, we noted that the tickler system is unreliable and has even caused problems

when workers close cases. In version 11, users were prevented from closing cases because Trails incorrectly identified open ticklers associated with the case. In another instance, we noted all users in one county had the same set of ticklers for their cases; these ticklers consisted of approximately 100 different items. Workers should only see ticklers associated with their own cases.

Without a valid tracking tool for identifying outstanding items, workers must create their own follow up procedures. This allows for inconsistent procedures between workers and counties and affects worker productivity. It could also result in cases lacking the required documentation.

Complicated Client Associations

When performing intake of a new client, the caseworker must associate the client with each member of the family or household. Trails requires that workers perform a separate association of the client with each family member (i.e., for a natural family with 7 members, it would take 42 separate associations). This association process is time consuming and affects worker productivity. Additionally, inaccurate associations may occur due to the complexity of the process.

Poor User Interface Design

The application does not allow supervisors to return to the previous screen when performing approvals. Supervisors must go through a three-step process to reach caseload information and must repeat this process each time they approve a case. Since Trails' response time can require up to 2-5 minutes per screen, supervisors may spend a considerable amount of time approving cases.

Supervisors report that they are spending an estimated 3-5 times longer to approve cases than under the pervious CWEST information system. This affects productivity and user acceptance.

Communication

There are several committees and groups from the different counties that meet regularly to discuss Trails issues. However, many counties report that they do not receive adequate or complete communication from the State and are not able to effectively communicate with all other counties.

Each county has, in effect, administered its own Trails application. Some have developed workable solutions to Trails problems, while other counties are struggling with the same issues. Trails is a statewide system, and each county's activity on Trails has the potential to affect other counties. Improved communication between the counties and the State is imperative in developing and implementing consistent solutions and methodology.

Recommendation No. 18:

The Department of Human Services should continue to improve user acceptance of the Trails system by:

a) Addressing system response times and measuring response times against established goals.
b) Providing adequate staffing with Trails experts at the state helpdesk to help supply workers with more timely and correct resolutions.
c) Addressing system problem areas such as the functionality of the tickler feature, inefficiencies of two-way matches between the family members, and lack of a "back-up" screen feature.
d) Creating a communication plan regarding Trails issues to help ensure the Department and counties are aware of system issues and users have a forum to share ideas and discuss problems and solutions.

Department of Human Services Response:

Partially Agree.

a) A number of the reported response time issues have already been corrected. All other reported problems are being addressed and changes to Trails are being made as appropriate. The staff will continue to work these issues as the issues are reported through the helpdesk. The implementation of a different access (portal) to Trails will also improve system response time. Pilot testing of this access began in October 2002. This access is scheduled to be implemented by March 2003.
b) The Department's focus is to apply resources to correcting and changing Trails based upon the priorities set by the state and county Trails users groups. If, and when, additional resources become available, they will be made available to the helpdesk.
c) Existing Trails' issues and changes, including the ones noted in this recommendation, were presented to the state and county Trails user groups in July 2002. Available resources are being assigned based upon the prioritization of these changes by those groups. Releases of Trails containing fixes, changes and modifications are being scheduled for every two months.
d) Currently, notifications in regards to Trails are sent through the helpdesk via a list server to which any Trails user can subscribe. Instructions on how to subscribe are available through the Trails' web site. The County Trails User Group along with the other stakeholder user groups are forums where users can share ideas and discuss problems and solutions. As noted in Recommendation No. 17, forums are also available through the Trails Training Open House and Exploring Trails sessions. Additionally, access to a Trails forum, Frequently Asked Questions, and updates about Trails will be available via the portal access to Trails that is scheduled for implementation by March 2003. Pilot of the portal began in October 2002.

Medicaid Issuance

Background

Trails allows caseworkers to request and document Medicaid services for a client. However, in some instances the information in Trails is not consistent with critical information related to Medicaid eligibility held by the State's Client Orientated Information Network (COIN) system or the Medicaid Management Information System (MMIS).

Findings

During our review we noted an instance in which Trails indicated that a child was Medicaid-eligible, but the MMIS system classified the child as being covered by third party insurance and therefore not eligible for Medicaid.

The interface between Trails, COIN and MMIS should be improved to reflect consistent information on a child's eligibility for Medicaid.

Recommendation No. 19

The Department of Human Services should continue to work with the Department of Health Care Policy and Financing to improve the interface between Trails, COIN and MMIS, in order that Medicaid information is accurately reflected in all State systems.

Department of Human Services Response:

Agree.

The Department will continue to work with the Department of Health Care Policy and Financing to improve the interface between Trails, COIN and MMIS for Medicaid information. All reported problems are researched by the three areas. Additionally, the Trails staff is working with the CBMS staff to identify the modifications required in both systems to support the interface with the advent of CBMS.

Department of Health Care Policy and Financing Response:

Agree.

Clients may have third party insurance and still receive Medicaid. However, in this case, the client could have been inappropriately classified as not eligible for Medicaid. The Department agrees that ensuring accurate data in all state systems is important and will work diligently with Department of Human Services to improve the data.

Change Management

Background

The vendor, DRC, uses a documented program change control process when making modifications and enhancements to Trails. Modifications are incorporated in new releases and tested prior to implementation.

The Department is responsible for performing enhancements to the system that are not covered by the contract or the warranty held with DRC. As of July 2002, the State is responsible for all changes to the Child Welfare modules of Trails.

Counties or the helpdesk complete Software Application Requests (SARs) to request modifications and enhancements to Trails.

Findings

Although it appears adequate procedures have been created over the request, approval, testing and implementation stages, it also appears that changes were not sufficiently tested to identify the problems associated with each rollout of Trails. In some cases the problems corrected in one release would reappear with a later release.

Currently, there are approximately 800-1000 outstanding SARs. The Department has seven full time developers who work on the Child Welfare module within Trails. Given the number of outstanding SARs, it could take a significant amount of time to address critical issues.

Recommendation No. 20

The Department of Human Services should implement the following steps to address changes to the Trails application:

a) Involve counties in setting priorities over which SARs should be addressed first.
b) Establish a timeline for completion dates and protocol for communication to user groups.
c) Use county workers from various areas (e.g., caseworkers, fiscal workers, and supervisors) to test changes against a "mirror" database of the system. Testing should be completed on a "mirror" of the full system to help ensure new medications do not adversely affect other modules and screens.
d) Obtain users sign off on test results, indicating their approval of the changes, prior to implementation.

Department of Human Services Response:

Agree

  a) As of June 2002, a County Trails User Group was established. The members of this group were appointed by the County Social Services Directors Association (CSSDA). The group has been designated by the CSSDA as the voice for the counties as far as fixes, changes and modifications to Trails are concerned. The group meets monthly to review issues and to prioritize fixes, changes and modifications to Trails. This input along with the input from the other stakeholder users groups is forwarded to the Trails Change Control Board for final priority setting. Each stakeholder group, Division of Child Welfare, Division of Child Care, Division of Youth Corrections and the counties, have representation on the Trails Change Control Board.
  b) Based upon the priority setting by the Trails Change Control Board, available resources are assigned to the request and schedules are established as to which release of Trails will contain what changes. Currently, a release of Trails containing fixes, changes and/or modifications is scheduled for every two months. The schedule for the releases is communicated back to the state and county user groups. Additionally, as noted in the response to Recommendation No. 18, updates are communicated by the Helpdesk through the list server and will be available through the portal access when implemented.
  c) Since December 2001, counties have been invited to participate with the pre-release testing of Trails. This testing is conducted against a "mirror" database of Trails and includes testing of the changes being made to Trails along with full system testing to ensure that fixes and changes are not adversely affecting existing functions within Trails.
  d) The results of the above mentioned testing is taken into consideration prior to the implementation of any new release of Trails. Part of the testing process is to have users sign off on test results, indicating that the changes are working as desired.

Shared Passwords

Background

At various points, a case must receive supervisor approval before the case can proceed to the next stage of processing, such as being assigned to a caseworker, receiving services, or placement with a provider. In order to prevent possible fraud and irregularities, one user should not be able to set up a case, approve a case and assign providers.

Findings

We found that in some instances users have access to the supervisor IDs and passwords and use these for approvals when the supervisor is not present. Intake supervisors also use each other's ID to approve referrals for assessments. Finally, supervisors have access

to caseworker IDs to perform activities on the behalf of these workers when they are not present.

Shared IDs circumvent application controls and can result in inappropriate approvals and other problems, such as improper payments. In addition, when users share IDs, controls over user accountability are circumvented.

Recommendation No. 21

The Department of Human Services should enforce policies that prohibit the sharing of passwords. Alternate procedures or compensating controls should be established for periods when workers are out of the office, or for those counties not able to establish adequate segregation of duties due to limited staff.

Department of Human Services Response:

Agree.

We concur that the sharing of passwords is a violation of state and department policy in regards to access of Trails data. Each user requesting access to Trails is required to sign a Statement of Compliance which indicates that the user is responsible for "protecting this account from unauthorized access and agree to ensure that the access to this account is not disclosed to any other individual". The Department will reiterate this policy with the Colorado Social Services Directors Association and the designated State and County Security Administrators by January 2003. Additionally, the Department will take appropriation action when made aware of violations to this policy. Since its implementation, Trails has had the capability for coverage by supervisors of other supervisors out of the office through the assignment and use of the Child Welfare Supervisor profile. This change was implemented in Trails prior to rollout at the request of the counties. Any worker assigned the CW Supervisor Profile has the authority to review and approve any approval pending for their county. The assignment of this profile to a worker is controlled by the County Security Administrator. The Department will remind the appropriate staff at each county of this capability by January 2003. Trails logs within the database the user id and time that a change is made to records in the database.

Oracle Database Security and Unix Operating System Security

Background

The database management system and the operating system used for the Trails system can be configured to supply security over access to the Trails system and data. Without the adequate controls enabled, there is a risk to data integrity within Trails and overall system availability.

Findings

During our review of the security features enabled on the Oracle Database System and the Unix Operating System, we identified key security settings that should be enhanced to provide a more secure environment for the Trails system. We noted weaknesses over password parameters, access controls and the auditing and monitoring of security events. Passwords and access restrictions provide controls that help prevent unauthorized access to data and key file settings. The auditing and monitoring of security events help detect unauthorized access and changes to the operating and database management system. Both controls are necessary to provide a secure computer environment. A more detailed description of our security findings and recommendations in this area has been supplied to the appropriate system adminstrators at the Department of Human Services.

Recommendation No. 22

The Department of Human Services should enhance the current security of the operating and database management system for Trails to provide better prevention and detection controls over password parameters, access controls, and the auditing and monitoring of security events.

Department of Human Services Response:

Agree.

The Department will implement the recommendation by June 2003.

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