Mapping the Flow of Eligibility and Encounter Data in Medi-Cal Managed Care

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by
Outlook Associates, Inc.

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We also thank the Medi-Cal Policy Institute for their interest and support (both financially and with their time and energy) in gathering and documenting the issues and "best practices" related to Medi-Cal's eligibility and encounter data processing and reporting. The Institute's ongoing concern for the betterment of California's Medicaid program is laudable.

A special acknowledgment must be given to several health plan members of the Encounter Data Workgroup who provided Outlook with in-depth information on the activities of the group and its various sub-committees in their ongoing goal of improving the encounter data flow of the Medi-Cal program. In addition, Outlook was invited to attend several of the workgroup meetings which allowed us to gain first-hand knowledge of the issues and challenges involved in obtaining accurate and timely eligibility verification and encounter data collection.

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INTRODUCTION

Traditionally, the California Medicaid program, Medi-Cal, operated under a fee-for-service (FFS) system in which the California Department of Health Services (DHS) paid medical providers a fixed amount per service performed. Amounts paid were based on DHS-established fee schedules and payments were made only after detailed claims data were received from the provider and adjudicated for accuracy and validity.

In 1991, California enacted legislation to better assure quality of health care services and appropriate access to care for the Medi-Cal population. Additionally, the legislation encouraged focus on preventive care services to improve and maintain population health and, thereby, reduce health care costs associated with hospital and emergency room services. DHS has, as a result, increased its use of managed care for coordination and delivery of care to Medi-Cal beneficiaries.

DHS developed a number of health plan models for Medi-Cal managed care. Twenty of California's fifty-eight counties operate under one of the following managed care models to offer services to designated Medi-Cal beneficiaries within their counties:[1]

- *Two-Plan Model* – DHS contracts with two health plans within the county: a Local Initiative health plan (LI) and a commercial HMO.[2]
- *Geographic Managed Care* (GMC) – DHS contracts with a number of commercial HMOs within the county.
- *County Organized Health System* (COHS) – DHS contracts with a single, locally organized health plan within the county.

Some of the Medi-Cal managed care health plans subcontract with other health plans (i.e., "multi-delegated health plans" or "Plan Partners") to coordinate and provide health care services within the county. A list of the health plans contracted with the state for Medi-Cal is provided in Attachment A.

Like the majority of California managed care programs for the general population, the managed care Medi-Cal program uses a capitated payment versus fee-for-service approach. Medi-Cal beneficiaries (members) choose a health plan and/or delivery system to manage their health care, and DHS prospectively pays the health plan a fixed rate (capitation) for each member enrolled in the health plan's program. In exchange for capitation payments, the health plan agrees to provide all medically necessary services for enrolled members. The capitation rate paid to the plan is the full reimbursement to the health plan for member health care services regardless of quantity and cost of services rendered. As a result, linkage between a claim for specific services rendered and a payment for those specific services does not exist in a capitated reimbursement setting.

To accurately assess the success of these Medi-Cal managed care health plans and appropriately monitor and set reimbursement rates, DHS, through a provision in their contracts with the health plans, requires submission of encounter data.[3] DHS, directly and through contracts with Electronic Data Systems (EDS) and MEDSTAT Group (MEDSTAT), captures, stores, and analyzes encounter data for Medi-Cal managed care. MEDSTAT provides data warehousing and decision support services to DHS. At the direction of DHS, MEDSTAT recently has provided training on the database tools and DHS provided

access to Medi-Cal data to the Department of Finance, the Legislative Analyst's Office, and California Medical Assistance Commission (CMAC) to assist them in evaluating Medi-Cal services, costs, and health plan performance under managed care.

Health plans, providers, and their intermediaries have experienced difficulties in obtaining accurate and current Medi-Cal enrollment information and in collecting and reporting complete and accurate encounter data to the state. These parties believe that a wide range of issues, including difficulties with communication, information systems, data exchange processes, coding standards, and a general set of misunderstandings, have significantly impacted the volume and accuracy of data reported to DHS to date. During the course of this project the Medi-Cal health plans expressed concern that the data transferred by DHS to the MEDSTAT databases are significantly incomplete and conclusions drawn from analysis of the data will be inaccurate.

To help gain a better understanding of the flow and processes involved in determining eligibility and collecting encounter data within the Medi-Cal managed care programs, the Medi-Cal Policy Institute requested Outlook Associates, Inc. (Outlook) to conduct a data mapping project.[4] The objective of the project, as set out in the Medi-Cal Policy Institute's Request for Proposals, was:

> *To identify ways to rationalize and improve data collection and data management for quality reporting, cost analysis, and other Medi-Cal managed care plan functions.*

Objectives were to be met through the following mapping and diagnostic activities:

- An analysis and diagramming of the flow of encounter data between individual Medi-Cal plans and their provider networks, including intermediaries, providers, and between the plans, the California Department of Health Services, EDS, and MEDSTAT.
- An analysis and diagramming of the flow of eligibility and enrollment data among the individual Medi-Cal plan, intermediaries, providers, and DHS.

METHODOLOGY

To obtain information on current eligibility and encounter data flows and processes, Outlook employed a combination of interviews and surveys of the health care organizations and their vendor entities involved in each step of the data flows. (For a listing of the participants, see Attachment B.) To encourage open dialog and edification on the processes and systems used within their organizations and the issues and challenges faced in obtaining accurate and timely eligibility and encounter data, all health plans and providers/intermediaries were guaranteed confidentiality. Therefore, specific examples of processes, issues, systems, etc., included in this report are not identified by name of health plan or provider/intermediary without their written consent.

To assure the involvement of a sufficient cross section of stakeholders and to maximize understanding within the guidelines of the project budget, Medi-Cal Policy Institute and Outlook agreed upon the following approach:

Sampling

The sample of health plans, providers, and intermediaries was not designed for statistically valid findings about source, type, and magnitude of encounter data production error and eligibility reporting. Health plans were selected to achieve a generally representative sample reflecting the overall mix and characteristics of Medi-Cal managed care health plans. The attributes of the health plans included:[5]

- Membership size
- Geography
- Managed care plan model
- Payment method
- Contract/administrative services model
- Level of connectivity with providers
- Data intermediary involvement
- Provider panel penetration

Providers and intermediaries (IPA, clearinghouses, etc.) were selected to represent a cross section of the many participating Medi-Cal physicians, clinics, hospitals, vendors, and other entities commonly found in the eligibility and encounter data flow.

On-site Assessments

Outlook developed a set of comprehensive tools to conduct health plan and provider on-site interviews. Outlook held on-site discussions with key operational and information systems (IS) representatives involved with encounter data and enrollment/eligibility determination. Outlook performed process and system assessments to gain an understanding of procedures, key problems, and issues related to Medi-Cal managed care enrollment/eligibility determination and encounter data exchange.

Each health plan was asked to identify members of its health care provider community that best represented the gamut of challenges and best practices related to data needs and exchange. These providers were then included in the on-site and written surveys. Many of the health plans took an active role in contacting their providers to encourage their participation in the project. On-site discussions were held with 17 health care providers, five intermediaries (IPAs, MSOs, data intermediaries, etc.), staff of the county Departments of Social Services (DSS), representatives from several DHS departments, and DHS contractors EDS, MEDSTAT, and Maximus.[6]

The following table summarizes the on-site assessments performed:

On-Site Assessments	Planned	Actual
Health Plans	9	8[7]
Providers/Intermediaries/Counties	24	24
DHS	1	2
EDS	1	2
MEDSTAT	1	2
Mental Health Carve-Outs	3	3
Total On-Site Assessments	**39**	**41**

Written Surveys

Health plan survey forms were mailed to fifteen designated health plans in December 1999. Outlook conducted numerous follow-up telephone calls to health plans to encourage their participation. Five health plans declined to participate. The remaining ten health plans submitted their written questionnaire and/or copies of their most recent HEDIS Basic Assessment Tool (BAT) outlining their data collection processes and controls. One health plan consented to a telephone interview. These surveys and BATs were compared to the on-site health plan findings to substantiate and validate the generalized plan findings described in this report.

Provider/Intermediary surveys were mailed after health plans identified a cross section of their provider network. To facilitate improved response rates from the provider and intermediary communities, Outlook conducted detailed telephone interviews with each of the designated provider/intermediary organizations to review/expand upon the survey responses.

The following table summarizes the written/telephone surveys and the responses received:

Surveys	Planned	Mailed	Telephone	Participation
Health Plans	15	15	1	11
Providers/Intermediaries/Counties	76	100	74	74
Total Surveys	**91**	**115**	**75**	**85**

Project Term

The project commenced in December 1999 and the findings were delivered to the Medi-Cal Policy Institute on April 24, 2000.

Project Challenges

For the most part, participants were open and willing to share information on their successes and challenges in gaining access to, sharing, and submitting data for Medi-Cal managed care. But several challenges hindered access to a number of participants and some detailed information originally desired. These include:

- Many of the participants were heavily involved in Year 2000 IS issues during the beginning of the project schedule and unable to participate until late January 2000 or thereafter.
- The health plans were preparing for and undergoing annual HEDIS or NCQA audits during the first quarter of 2000, further constraining the project schedule.
- One health plan, after originally agreeing to on-site interview participation, underwent senior management changes within its organization and subsequently, in the last two weeks of the project, declined participation. Outlook contacted several health plans in an attempt to locate a willing substitute for an on-site but was unsuccessful. One contacted plan, however, did agree to a telephone interview.
- Many health plans and provider organizations have a limited understanding of the systems they operate and use. Answers to system functionality and flow were extremely difficult to obtain in some instances. As a result, the data flows prepared for these particular organizations as a part of this project lack the level of detail available from more knowledgeable organizations.
- The original scope of this project called for one on-site visit with DHS representatives who were involved with eligibility and encounter data processes and systems. At this initial on-site, Outlook met with members of the Data Management Unit (DMU) of the Medi-Cal Managed Care Division (MCMCD) and senior management of the MCMCD for a review of their processes and systems for tracking and approving the flow and acceptance of encounter data submitted by health plans to EDS. Outlook was provided with numerous reports and in-depth information on the activities of this group.

  At a separate meeting during this initial on-site visit, Outlook met with representatives from the Information Technology Division (ITSD), the Med-Cal Eligibility Branch (MEB), and the Management Information Services/Decision Support Services Project (MIS/DSS). At this meeting we received a general description of the eligibility and encounter data flow through the systems of DHS. Outlook requested specific documentation to understand better the systems and flow of data through DHS. Some, but not all, of the requested information subsequently was mailed several weeks after our initial meeting.

  Upon review and analysis of this documentation, Outlook determined that an additional on-site meeting would be necessary to clarify inconsistencies between the discussion points of the initial meeting and the follow-up written documentation. A detailed questionnaire was prepared by Outlook and forwarded to DHS prior to this second meeting with a request that the appropriate people be present at the meeting for discussion and clarification of the points presented in the questionnaire.

  At the follow-up on-site meeting only one person was present, who was unable to respond to the questions. Outlook presented schematics of the eligibility and encounter data flows based on the

information it had been able to obtain from document review and the first on-site discussions. The schematics were reviewed with the DHS representative present at the meeting and necessary changes were agreed to. Outlook requested further review by others in DHS to ensure the accuracy of the schematics as well as answers to the previously submitted questionnaire prior to the established deadline for the project (April 24, 2000). Despite numerous e-mails and voice mails sent to DHS requesting additional information/feedback no further communication was received from DHS prior to the deadline.

Numerous acronyms and other terms common to the Medi-Cal managed care environment are used throughout this report. We have attempted to provide a brief clarification of these terms in Attachment D, Glossary of Terms.

The data presented in this report are based on interviews and surveys with subsequent follow-up telephone calls and exchange of schematic data flows and written reports to verify and clarify issues. Flows and descriptions were reviewed with each health plan that participated in the on-sites, EDS, DHS, and MEDSTAT. The findings from on-site interviews were compared to information provided by survey results. Despite all efforts to verify the accuracy of detail, some errors may be expected.

FINDINGS

The data flows for eligibility determination and claims/encounter reporting for Medi-Cal managed care are extremely complex and entangled. The paths for the data involve numerous government, vendor, health plan, intermediary, and provider entities. All of these parties need to share the data. All are touching and often altering and/or deleting some portions of them in efforts to meet their own reporting needs and comply with requirements imposed upon them by the next level above them in the data flow chain.

This section of the report outlines the general flow of eligibility and encounter data through the systems and processes of the various entities, and discusses the issues and obstacles impacting timely, accurate, and complete data within the DHS/MEDSTAT databases.

I. ELIGIBILITY DATA FLOW

The process of establishing, maintaining, and providing accurate and timely eligibility information regarding Medi-Cal member status, whether under FFS or managed care, is extremely complex and fraught with challenge.

Under managed care, an additional point of complexity is introduced to the process by the need to establish and maintain a primary care physician (PCP) relationship for managed Medi-Cal members. Many entities must simultaneously be aware of eligibility status and keep sets of eligibility data for member identification, member contact, and verification of capitation calculations and payments. A typical flow of eligibility information for Medi-Cal managed care is represented in Figure 1.

Establishing Eligibility

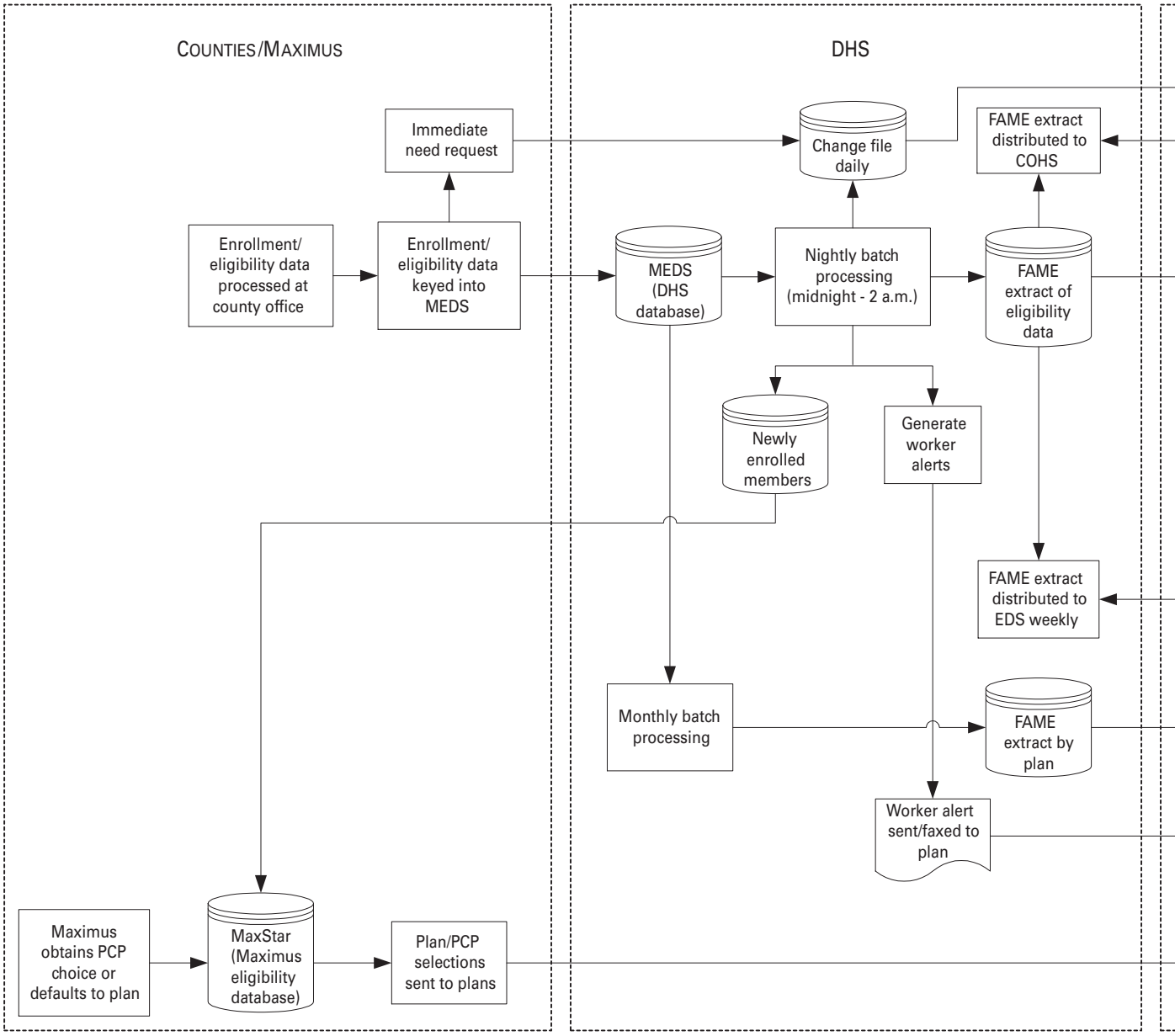
The following summary represents an overview of the basic processes involved in eligibility by entity.

County Social Services Offices and Maximus[8]

The processes for establishing and maintaining managed Medi-Cal beneficiary/member information at DHS are managed by county departments of social services (DSS) and Maximus, a DHS vendor providing outreach and education to Medi-Cal beneficiaries to assist with health plan and PCP selection. The processes are:

- Individuals present at DSS offices where eligibility is determined. Data on the beneficiary are entered into the county system (e.g., ISAWS, CDS, LEADER, depending upon the county). The data are updated to the DHS MEDS system indicating eligibility beginning the first of the next month.
- DHS's aid code classifications and unique client identification number (CIN) are assigned to the beneficiary.
- Beneficiaries in counties covered under COHS are enrolled automatically as members of the COHS.
- Beneficiaries in other counties, who are classified with aid codes included under managed care, are assisted by Maximus with health plan and PCP selection. Maximus schedules and conducts presentations for the recipients, explaining managed care and the PCP selection process to the member. Maximus maintains its own system, MaxStar, a proprietary system. Each night all MaxStar transactions still requiring case approval are sent to MEDS to determine if the case has been approved and updated in MEDS. MaxStar transactions update MEDS regarding plan selection.

Figure 1: Eligibility Data Flow



Source: Outlook Associates, Inc.

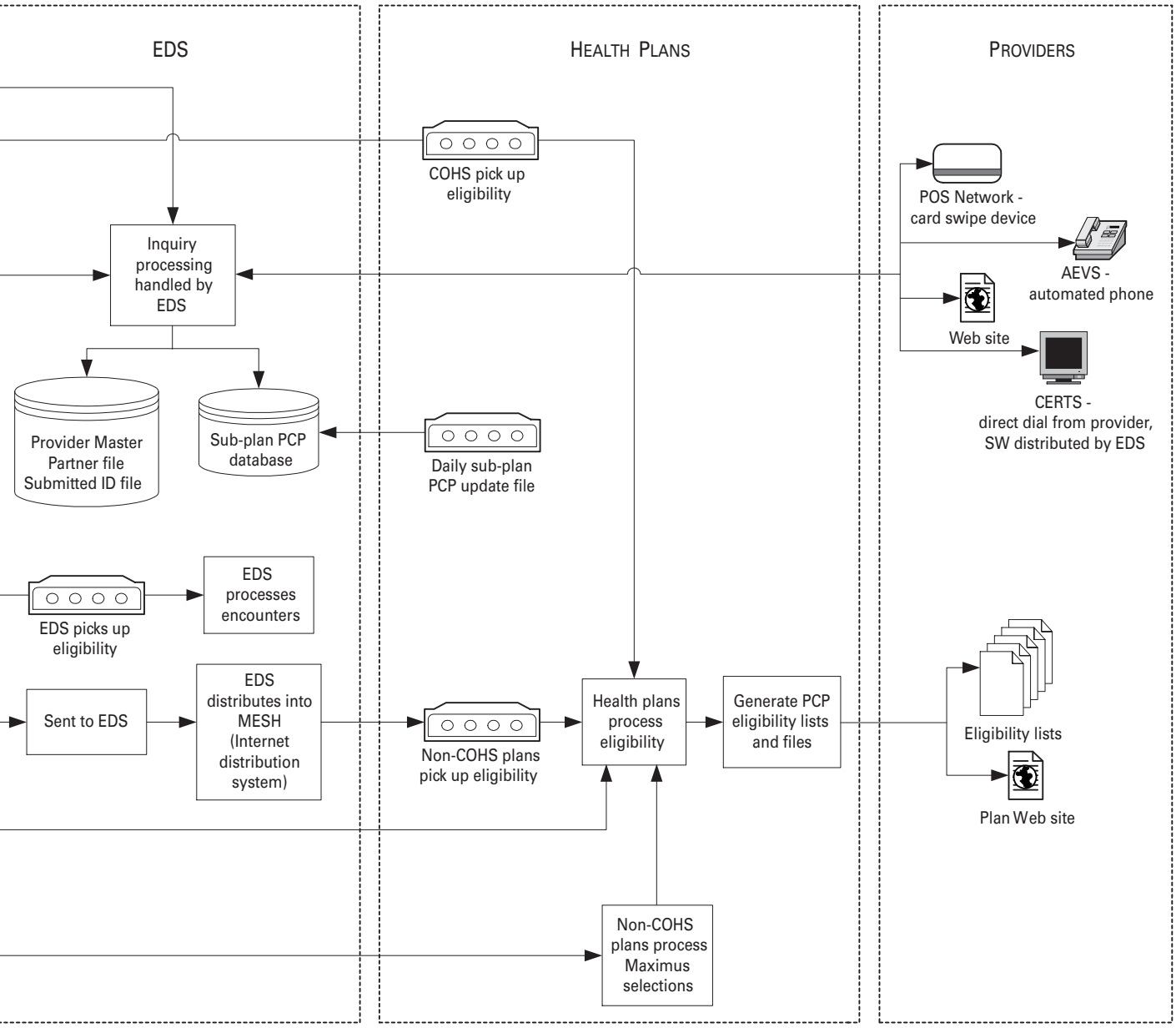
Key

AEVS – Automated Eligibility VeriÞcation System
CERTS – Claims and Eligibility Real-Time System
FAME – Data extract from the Medi-Cal Eligibility Data System
MaxStar – Maximus' database
MEDS – Medi-Cal Eligibility Data System
MESH – Medi-Cal Extranet for State Health Care
PCP – Primary Care Provider
POS – Point of Service

Automated Phone. This symbol represents telephone access by a provider to EDSs automated voice mail system for eligibility veriÞcation.

Connector. This symbol links a shape to another point in the ßowchart without using a line. A letter or number in the circle links to the corresponding letter or number elsewhere in the chart. It is also used to connect multiple lines at one point.

Database. This symbol represents a database.



Direct Dial. This symbol represents software distributed by EDS to provider organizations for eligibility determination via direct dial access via the Internet.

Document. This symbol represents an activity recorded in a document, such as a computer Þle or printed report.

E-mail/FTP Submission. This symbol represents data submission via email or FTP.

Paper Submission. This symbol represents a paper-based data submission.

Process. This symbol represents any type of process or activity.

Swipe Card Device. This symbol represents the Medi-Cal beneÞciary ID card used by provider ofÞces to determine a beneÞciary's eligibility through EDS.

Transaction. This symbol represents a transaction.

Web site. This symbol represents Web site access by a provider to EDS for eligibility veriÞcation.

- Members complete a "Choice" form designating their selected health plan and PCP. If the member does not respond to Maximus's request for managed care health plan and PCP choice within a thirty-day period, Maximus defaults the member into a health plan. The health plan is then responsible for assisting the member with the selection of a PCP.
- If information pertinent to establishing eligibility or completing the enrollment process is missing, DSS enrolls the member but places them in a "hold" status. Members on hold still are included in the DHS MEDS database but are shown as ineligible pending resolution of issues.
- All changes and corrections to member demographic information (e.g., address changes, incorrect birth date, gender, name change) are the responsibility of the DSS offices. DSS staff records changes in the county system and the changed data are submitted to the DHS MEDS system for update and distribution to other entities.
- DSS staff adds or remove the hold status of members as additional information is obtained. Upon changing a hold status or other key information on a member (e.g., new aid codes impacting managed care participation), an update is sent to the DHS system for processing in a nightly batch process. "Immediate need" changes can be issued by DSS offices. These are reflected immediately in the online point of service (POS) eligibility systems supported by EDS for DHS.

Schematics of the flow of eligibility data within county DSS and Maximus are set out in Appendices A and B.

DHS

- Each night, updates to beneficiary/member information submitted to MEDS throughout the day, together with data stored within the "daily file," are merged/updated to the MEDS database.
- A worker alert is generated for every transaction sent to MEDS by DSS that does not pass cleanly through the edit process. System-generated worker alerts that require additional information or data correction are sent to DSS offices for resolution.
- DHS forwards daily worker alerts, indicating changes to data and status, to health plans (i.e., printed and mailed).
- A cutoff date of approximately the 24th of each month has been established for generating information to health plans on members' eligibility effective the first of the next month.[9] DHS generates a full member extract of all Medi-Cal eligible beneficiaries from the MEDS system and forwards this information to EDS and to all COHS on tape.

A schematic of the general flow of eligibility data within DHS is set out in Appendix C.

EDS

- A monthly *Fiscal Intermediary Access to Medi-Cal Eligibility* (FAME) data extract is received from DHS, processed, and separated by health plan for all non-COHS counties.
- FAME extracts are forwarded to each non-COHS health plan by an extranet, Medi-Cal Extranet for State Healthcare (MESH). MESH is a private, secure network created by DHS and EDS to transmit/receive eligibility and encounter data to/from the health plans.

Verification of Eligibility

Medi-Cal member eligibility verification occurs throughout the month. It is conducted by providers, intermediaries, health plans, and others delivering and authorizing services, processing claims/encounter information, handling member inquiries, etc. The following summarizes key steps across entities:

EDS

- EDS supports statewide Medi-Cal eligibility inquiries by POS network, AEVS, Web site, and CERTS.[10] EDS accesses data within the DHS FAME database along with updates included in the daily file to respond to eligibility inquiries.
- Certain health plans have contracted with EDS under special arrangement whereby EDS uploads PCP and Plan Partner affiliation information from the health plans weekly to supplement eligibility inquiries to EDS.

A generic schematic of the general flow of eligibility data within EDS is set out in Appendix D.

Health Plans[11]

- COHS plans process tapes of FAME data from DHS and select their specific county membership from the statewide data provided. The extracted membership is uploaded to their information systems for internal reporting, capitation management, claims/encounter processing, etc.
- Non-COHS health plans receive FAME extract data from EDS via MESH and upload it to their individual information systems.
- Health plans assign members (who have not made a PCP selection through Maximus) to an appropriate PCP based on geographic and other parameters (or in the case of multi-delegated health plans, to a Plan Partner).
- New members are sent enrollment cards and "welcome packets" of information.
- Health plans directly support existing members wishing to make PCP changes.
- Health plans send quarterly updates of participating providers and panel-size information to Maximus for use in new-member PCP selection.
- Health plans produce eligibility files and/or reports for participating providers. A number of health plans also make this information available to providers on health plan Web sites.
- Health plans update member eligibility data throughout the month based on worker alert information from DSS offices via DHS.

A generic schematic of the general flow of eligibility data within a health plan is set out in Appendix E.

Providers and Intermediaries

- Providers perform eligibility verification with the various EDS tools, health plan Web sites, eligibility listings from health plans, or through direct telephone calls to the health plan. The majority of providers and intermediaries use multiple methods to gain all the relevant information (e.g., PCP assignment).

A schematic of the general flow of eligibility data within a provider is set out in Appendix F.

Eligibility Issues and Opportunities for Improvement

The accuracy and reliability of eligibility data referenced, stored, and forwarded throughout the eligibility data flow chain directly impact decisions about member care and reimbursement approaches, and the accuracy, volumes, and timeliness of encounter data submission. Claims/encounters rejected for ineligible members or with incorrect health plan designations, nonparticipating PCPs, incorrect age/gender data, etc., result from incorrect eligibility data. The following issues contribute to eligibility and, subsequently, to encounter errors.

CIN Controls

The varying county systems in place to support Medi-Cal enrollment have differing levels of sophistication. System capabilities within the ISAWS and LEADER systems assist DSS workers in matching potentially "new" members with historical member identification numbers to avoid assignment of multiple ID numbers to a given person or incorrect linkage of a new member to an incorrect historical ID. DSS workers can force the addition of a new CIN for a member if they feel the potential identified matches are not the actual members being enrolled.

While the ISAWS system used by many counties has multiple checks in place to prevent duplicate CINs, the LEADER system does not. For ISAWS users, the number of "forced adds" (where the county asks for a new CIN rather than accept an existing client) is between 5.8% and 6.5%. For districts using LEADER, the forced-add rate is between 45% and 53%, indicating a significant potential for duplicate CINs.

Delays in Worker Alert Resolution

DSS offices are responsible for researching and correcting issues reported on worker alerts. Staffing issues within some larger DSS offices appear to preclude prompt resolution of worker alerts. All parties in the eligibility verification data flow are impacted and the associated members, in many cases, are considered ineligible until the worker alerts are closed.

Delays in Hold Status

Members put in hold status pending additional information or verification appear as "non eligible" in MEDS and the POS Network. Should eligibility issues be resolved after the FAME updates are processed for the month, DSS uses a manual process to notify DHS, which in turn manually notifies health plans, which in turn notify participating providers. This process is labor intensive, time consuming, and potentially error ridden. According to EDS, a daily FAME extract is now available, but at the time of this project (April 2000) few health plans surveyed were aware of this. To effectively implement daily updates, health plans will need to modify existing information systems and processes, as will many intermediaries and providers.

Section 1931(b), the Medicaid Expansion Project

With the introduction of Section 1931(b), additional calculation by DSS offices is required to accurately determine beneficiary/member eligibility. Existing county systems cannot effectively support these changes and significant additional manual processes and system overrides are now required, especially with the LEADER system. As a result, delays and eligibility error rates have greatly increased.

DHS Support for DSS Offices Disbanded

Outlook learned in its interviews with DHS that early in the 1990s, the "Systems" unit within the Medi-Cal Eligibility Branch that supported the DSS offices with MEDS processing and system issues was disbanded. This unit would correct eligibility records and work with the counties to clean up data issues. Control was passed back to the counties for updates to MEDS. This has resulted in significant degradation of data within the MEDS systems as DSS attempts to work, mostly unaided, through system and data

issues. At the time of this project (April 2000) there was pending legislation, SB 2193, to create a new unit to perform similar functions.

Limited Information System Access for Maximus

Maximus maintains member health plan and PCP assignment data on its MaxStar system in Sacramento. At the time of our interview (April 2000), MaxStar was accessible *only* in the Sacramento site. Maximus workers in the county locations did not have access to MaxStar for either inquiry or update purposes. The completed "Choice" forms are shipped to Sacramento each day. Time-consuming follow-up was required when the forms were not completed correctly.

Outdated PCP Availability Data for Maximus

Maximus receives PCP data related to provider participation and panel capacity for accepting new members quarterly from the health plans. Because of the amount of ongoing change with physicians and their practices, these data are often outdated and a new member may select a physician who is no longer with a particular health plan or is currently not receiving any new members into her/his panel. Once an outdated selection is sent to the health plans, the plan must then contact the member and assist them in making the change. This can be extremely confusing and frustrating to members who are new to the health plan and, more specifically, new to managed care.

Demographic Errors

A significant error level in demographic data from DHS for Medi-Cal members was reported by every health plan surveyed. The most problematic eligibility errors impacting claim/encounter data are incorrect gender classification and incorrect birth dates when health plan systems support relational edits (e.g., OB procedure not appropriate for a male). Although accurate gender and birth date information is available from providers when patients are seen and are obtained by many health plans during initial member welcome calls or subsequently through customer service interactions, current processes between counties and DHS do not permit correction of these data *except* through DSS offices. Since backlogs for corrections at DSS offices can be significant, errors often persist for a long time, resulting in delayed and incorrectly denied claims/encounters.

Bad/Changed Address Information

Current DHS and DSS policies and practices require the member to notify DSS offices to correct or change address and telephone number information. If the member calls the change into a DSS worker, DSS offices must follow up with a letter requesting verification. Facilitating members through this process can result in long delays. Additionally, in the early 1990s, DHS changed its process from the monthly ID cards/stickers for the Medi-Cal population that required members to keep address information current to receive benefits. As a result, address information within MEDS is extremely inaccurate.

Restricted Avenues for Updating/Correcting Member Data

Maximus, providers, and health plans regularly obtain corrected address, telephone, birth date, etc., information through direct contact with the members and regularly update the information within their own systems. But each month less current and erroneous address information from MEDS is passed again in DHS extracts and FAME updates. Although a few health plans have more sophisticated systems and processes to allow them to ignore address and telephone data from FAME, most do not. Thus, updated data are overlaid with bad data. A number of health plans rely on manual processes to re-key corrections each month following FAME processing. The effort is labor intensive and error prone. Every health plan surveyed expressed frustration with the inability to get timely corrections of member demographic data.

Insufficient Data via DHS Eligibility Systems

The DHS databases and eligibility inquiry processes supported by EDS (e.g., POS network, AEVS, Web site, and CERTS) were designed originally to provide basic Medi-Cal eligibility status information,

including the member's health plan and phone number. Managed care, however, requires knowledge of PCP assignment and intermediaries/Plan Partners to effectively coordinate and authorize care and to process claims and encounters associated with these services. POS is the primary method used by most providers for determining eligibility, but it does not support these key data elements. Three health plans contracted directly with EDS to include the PCP and Plan Partner and telephone numbers on the POS printout. But no process is in place to support providers participating with other health plans. As a result, most providers must continue to call the health plans for PCP and Plan Partner information.

Underutilization of Various Eligibility Verification Options

A significant portion of providers interviewed were either not aware of the eligibility verification options available to them through both DHS/EDS and through intermediaries and health plans or did not have the systems capabilities to take advantage of the options. Providers of one large commercial plan can check eligibility through an IVR system on a dedicated Web site to make inquiries (about eligibility and claims) or by fax requests to the plan. One of the plan's clearinghouses provides hardware and software solutions (financed by the plan) to provider offices to facilitate encounter submission. Providers are responsible for procuring and maintaining an Internet service provider (ISP). But even with this substantial assistance, the health plan estimates only 25% of its provider network was Web enabled in 1999.

One large IPA interviewed by Outlook builds interfaces from the major practice management software packages into its system if a provider office already has a computer system in its office. However, a large number of the IPA's providers are not computerized. This IPA added functions to their system so that it could also be used in physician offices (to increase services they provide to providers but also to increase encounter data submission). If the provider does not have a computerized system, and has at least 500 members, the IPA will provide the computer, software, and communication link.

Providers of another interviewed IPA use a commercial Internet health care company that provides Internet connectivity for payers, providers, and employers to look up a patient's eligibility status from the eligibility records using a Web-browser interface. This Internet health care company provides transaction and clearinghouse services for providers that include verifying eligibility; submitting referrals, authorizations, and claims; and conducting status inquiries.

Summary of Eligibility Findings

The flow of data for the determination of a beneficiary's eligibility is extremely complex. The data paths involve county and state agencies, state contractors, health plans and providers. Each party "touches" or has contact with some or all of the eligibility data, which include beneficiary identification numbers, demographic information, aid codes and eligibility status, health plan and primary care provider selections or assignments. Each of these touches increases the chance that data will be lost or corrupted.

The accuracy and timeliness of eligibility data are critical. Access to care depends upon these data. For example, an individual may be temporarily ineligible for Medi-Cal or placed on hold status if certain information is missing or inaccurate. Similarly, providers who are not able to verify a patient's correct eligibility status or health plan assignment may not be paid for care given or may erroneously send a patient away without treatment. Key issues are discussed below.

Information Systems and Processes Are Not Integrated

- The processes for assigning and correcting aid code classifications and client identification numbers (CINs) vary from county to county. Some practices result in beneficiaries receiving multiple identification numbers. This results in erroneous and/or lost data.

- There is limited access to Maximus's data system containing health plan and provider assignment information. The system is not available to Maximus workers outside of Sacramento. This results in overly manual processes with delays and potential for erroneous and/or lost data.
- There are insufficient provider assignment data available from DHS eligibility systems. The current processes supported by EDS were not designed to produce information about provider or intermediary assignments. This results in a manual process by which providers must verify members' assignments.
- Of the electronic verification options available to providers, few are used. Many providers are not computerized or do not have interfaces. This results in delays in payment for providers and erroneous and/or lost data.

Delays Throughout the System

- There are significant delays at the county level in resolving problems that place a member's Medi-Cal enrollment on hold. The processes are manual and lead to data delays and errors. Beneficiaries with a hold status appear in providers' systems as ineligible, resulting in denials of care.
- County DSS offices delay eligibility verification when worker alerts or issues requiring staff research are not responded to promptly.
- Maximus receives provider participation and capacity data from health plans only quarterly. This contributes to outdated information on provider availability and, as a consequence, beneficiaries selecting providers whom they cannot access. The system for correcting the selection is also time consuming, and further delays access to care.

Beneficiary Data Are Inaccurate and Incomplete

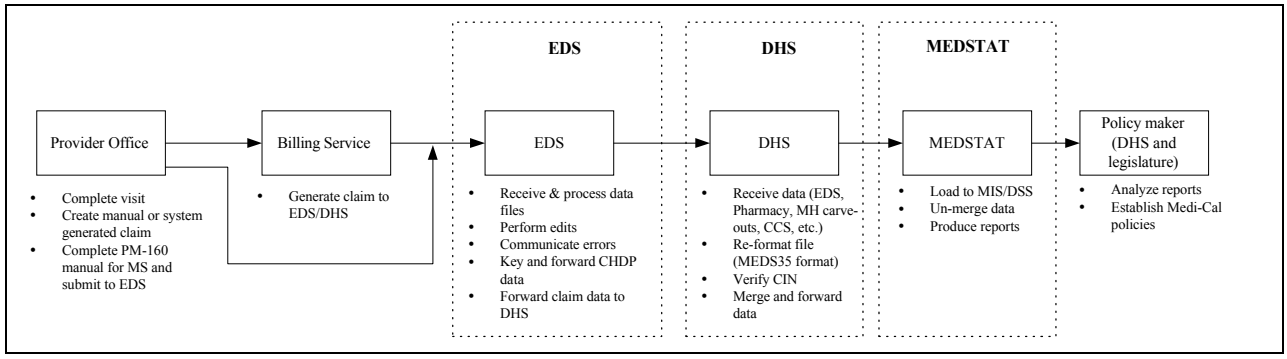
- Health plans report receiving a significant amount of erroneous demographic data from DHS. Current processes between counties and DHS do not permit correction of data except through DSS offices. Backlogs at DSS offices result in delayed updates, and incorrect data may result in denied payment or care.
- Requirements that any change to a beneficiary's address or telephone number be made through a letter sent from DSS to the beneficiary result in delays in correcting inaccurate data.
- Maximus, health plans, and providers regularly receive corrected demographic data such as address, telephone, birth date, etc., and update their own systems. Each month the old/erroneous data are passed again from the state and thus, updated data are replaced with bad data. Many plans rely on manual processes to re-input correct data every month.

II. ENCOUNTER DATA FLOW

Encounter and claim reporting under Medi-Cal managed care is, by far, more complex and less timely than reporting under the traditional FFS model. This is largely a direct result of the number and levels of entities involved in contracting, managing care, and handling administration activities. It is exacerbated by the lack of direct claims-to-payment financial incentives for submission of prompt and complete data and the relative newness and lack of experience of many of the Medi-Cal health plans.

To fully grasp the complexities in data exchange imposed by the current structure of managed Medi-Cal, it helps to understand the data flow under the traditional FFS Medi-Cal structure. This traditional flow usually involves no more than four entities, as shown in Figure 2.

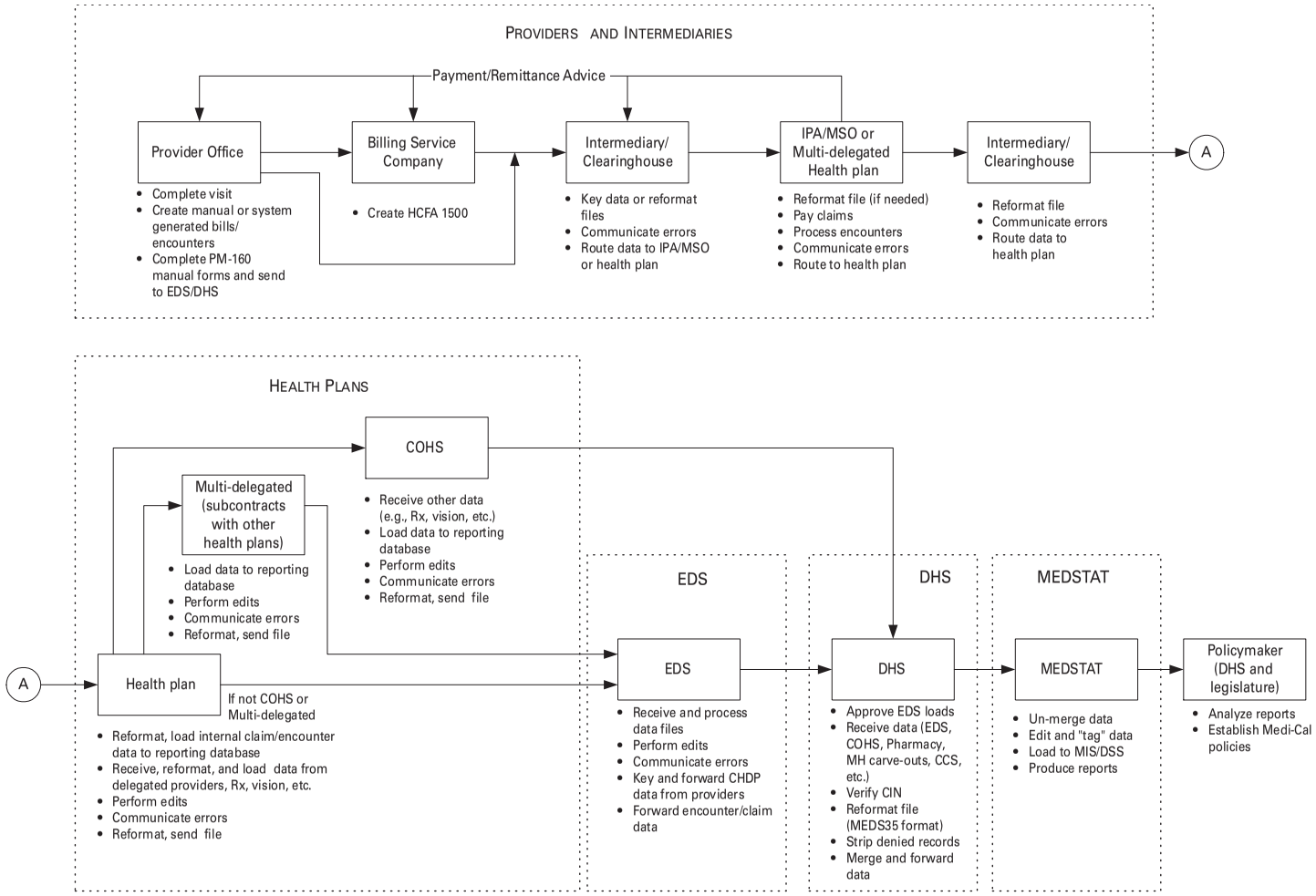
Figure 2: Traditional Fee-for-Service Claims Flow



As previously discussed, payment under FFS Medi-Cal is totally dependent on submission of accurate, complete data to EDS for each service rendered and, the more prompt the claims submission by the provider, the more prompt the payment received by the provider.

However, the flow of encounters/claims data for managed care is significantly more complex. Entities involved in handling data for billing, payment, analysis, and reporting are numerous, and typically the data flow involves between 8 and 11 entities. The increased complexity can be seen in Figure 3.

Figure 3: Encounter Data Flow



Source: Outlook Associates, Inc.

Key

CCS – California Children Services
CHDP – Child Health and Disability Prevention
CIN – Client Index Number
IPA – Independent Practice Association
MSO – Management Services Organization

Encounter Flows and Processes

The following summarizes a general set of basic steps involved in moving encounter information along the chain of entities toward inclusion in the DHS/MEDSTAT reporting systems.

Providers[12]

- Patients are seen by providers or at provider facilities and care is rendered.
- Services performed are noted on UB92s, encounter forms, Superbills, or HCFA 1500s. For Child Health and Disability Prevention (CHDP) services, often two forms are completed to document procedures performed.
- For larger automated provider facilities, services (charges) are entered into information systems for billing (claims/encounter submission). Files of claims/encounters are batched and sent/transmitted to the next entity in the encounter data flow chain. Often clearinghouses are used to reformat/translate data to required submissions formats and route claims/encounters forward.
- For provider facilities using only manual systems, forms are sometimes sent to billing service companies for claims/submission then on through clearinghouses to intermediaries or health plans. For capitated services, forms typically are forwarded to the next entity in the encounter data flow chain. Sometimes they are sent to an intermediary vendor for keying of data into automated systems for forwarding.
- If claim/encounter data errors are found by the next entity, the provider facility is sometimes, but not always, notified, the issue is researched, and new, corrected information is forwarded.

Appendix G provides a generic schematic of the flow of encounter data from a clinic to a plan with electronic capabilities.

Intermediaries[13]

- Contracting and/or administrative intermediaries receive paper and/or automated files from providers.
- For automated IPAs and MSOs, data are keyed or uploaded to information systems for analysis. Some intermediary systems edit and validate data and, if errors are found, claims/encounters are returned to the sending providers with descriptions of the problems.
- Claims are processed and paid.
- For nonautomated intermediaries, data are either sent to an outside vendor for keying and forwarding or paper claims/encounters are sent on to the health plans.
- In accordance with schedules mandated by contracting health plans, intermediaries gather all claims/encounters for the health plan and forward it to the health plan. Often this involves sending all claims/encounter data to an intermediary system vendor or clearinghouse that sorts and batches data by health plan then reformats each set to the specifications of the health plan.
- If the health plan determines that there are errors with the claim/encounter data, the intermediary is notified. The intermediary may need to return the data to the provider facility for research and correction. Once corrected, the revised claim/encounter is forwarded.

Appendix H provides a generic schematic of *electronic* encounter data flow from a provider through an IPA and clearinghouses. Appendix I provides a generic schematic of *paper/disk* encounter data flow from a provider through an intermediary. *It should be noted that these appendices provide only two of the myriad possible combinations of data flow on the provider side.*

Health Plans

- Health plans may receive paper claims but usually receive automated files of claims/encounters from intermediaries and providers. These may include CHDP data.
- Data are keyed or uploaded to information systems. Data may be edited and validated or simply may be stored depending on the individual health plan's systems and processes.
- If data are edited and errors are found, claims/encounters are returned to the sending provider or intermediary. Depending on the number of errors, entire files may be returned.
- The data are extracted monthly and translated/reformatted to DHS specifications and forwarded either directly to DHS (for COHS) or to EDS (for non-COHS).
- DHS or EDS notifies the health plan if a serious error in reading the file is found and the health plan must correct the file and resubmit.
- For non-COHS, data validation edits at EDS may detect errors in claim/encounter data in excess of DHS acceptable thresholds, causing the entire file to be rejected. The health plan corrects the problems then resubmits the data.

Appendix J provides a generic schematic of encounter data flow through a health plan.

EDS

- EDS receives uploads into the CA-MMIS of encounter data from non-COHS health plans via electronic submission.
- Pre-processing is performed for data validation against acceptable error conditions and thresholds as specified by DHS. If errors exceed thresholds, EDS notifies the health plan and indicates that resubmission is required.
- If errors do not exceed thresholds, error reports are sent to DHS for review and approval to process.
- Upon approval from DHS, data are reprocessed in CA-MMIS and loaded to interim databases at EDS.
- If DHS does not approve of the errors, EDS notifies the health plan of the errors and indicates that resubmission is required.
- EDS reformats the data each week into the MEDS35 Format required by DHS, places it on tape, and delivers it to DHS Information Technology Systems Division (ITSD). CHDP data are also sent from EDS in a different process.

Appendix K provides a general schematic of encounter data flow through the CA-MMIS at EDS.

DHS

- DHS Data Management Unit (DMU) reviews error logs and grants authorization to EDS for acceptance of data for processing.
- DHS/ITSD receives tapes directly from COHS as well as from EDS for non-COHS health plans.

- DHS/ITSD also receives CHDP data from EDS and reformats the file for Medi-Cal federal reporting (MFR) processing.
- DHS applies the "month processed" date; merges FFS, COHS, Short-Doyle, and other data; strips out denied service records; and performs CIN matching against eligibility records.
- If the CIN matching is successful, the data are forwarded to MEDSTAT.

Appendix L provides a general schematic of encounter data flow through DHS.

MEDSTAT

- MEDSTAT transfers DHS data to the Management Information System/Decision Support System (MIS/DSS) in the same state IS facility as DHS systems.
- MEDSTAT completes manual review of files and records counts. If no problems are detected, initial processing begins.
- MEDSTAT's systems split the encounter/claims records by health plan and data type (medical vs. pharmacy) and process the separated files. Unexpected value reports are produced and forwarded to DHS.
- During the edit process, records are "tagged" with data from the MEDSTAT eligibility and provider files supplied by DHS. Other records containing errors are dropped and reported on the Failed Operations Log that is then returned to DHS.
- The MEDSTAT Panorama system is loaded from the database as a summarized set of information for trending and reporting. The most recent three months data (from a point-of-service perspective) are suppressed.

Appendix M provides a general schematic of encounter data flow through MEDSTAT.

Encounter Data Flow: Systemwide Issues and Opportunities for Improvement

The general flow described above includes many assumptions of automation, processes, controls, communication, and compliance throughout and among the entities that make the flow appear relatively direct. These assumptions, however, do not uniformly hold true at all levels. Many issues throughout the flow and within the individual entities significantly impact data accuracy, volumes, and timeliness across all segments of the encounter data flow chain. Issues that have a universal impact across all entities are discussed below.

Capitation

Under Medi-Cal managed care, not only are the health plans capitated by DHS but a large percentage of the providers of care contracted with the health plans also are capitated by the health plans (i.e., subcapitated). More than 90% of health plans surveyed have two or more levels of subcapitation below the health plan level with each contracting entity taking financial risk for some portion of medical services for the associated Medi-Cal members. Each level of capitation/subcapitation eliminates the direct financial connection between claims/encounter submission and payment. Data submission has, thus, become a contract requirement rather than a means of payment and, as such, requires more innovative means of monitoring and incentivizing. Although some instances of innovation (discussed later in this

report under Best Practices) were uncovered during interviews and surveys, these are not common, for the most part, and poor rates of encounter submission have resulted.

Member Identification

There is no consistent, unique identification numbering scheme for Medi-Cal members that is used as a common link across the many entities. DHS has a CIN identification mechanism that is gaining in use, but CIN is relatively new in its use in managed care. Prior to CIN, DHS used a Beneficiary ID (BID) scheme and this ID, because of its use on monthly eligibility tape updates, was adopted as the member identification number in many of the Medi-Cal managed care health plans, intermediaries, and providers. BIDs, however, have incorporated within their numbering scheme the Aid and county codes for the individual. Thus, the BID does not remain unique for a person as he/she moves throughout the state or is assigned new aid codes. Use of BID for member identification has resulted in duplicate IDs for the same members throughout the Medi-Cal system. Various other member identification methods are used by each of the different entities (e.g., Social Security numbers, derivatives of Social Security numbers, case numbers). But all have limitations.

DHS has developed a CIN mapping system that attempts to match these various possible numbers to a unique member and is used for tagging all encounter information with the CIN for DHS information systems. This mapping system, however, is not available outside DHS. CIN identification could evolve as the standard, but limited controls within some counties and some county information systems for establishing new CINs are resulting in multiple and/or erroneous CINs for members.

Accurately linking claims/encounters to the correct members across entities will remain a challenge until unique numbering is established.

Provider Identification

Provider identification, like member identification, is inconsistent throughout the Medi-Cal system. Providers are identified through a variety of numbering schemes, including Medi-Cal IDs (if applicable), state license numbers, tax IDs (signifying billing entity versus physician specific), and physician-specific codes. In some instances, entities use one single provider ID for all physicians within a clinic. In a number of health plan and intermediary systems, an individual provider is assigned multiple identification numbers to allow more poorly designed, automated systems to appropriately calculate payments for claims. These uses of nonunique and multiple physician identification numbers preclude accurate physician-level performance and quality monitoring by health plans and others receiving the data.

As with member identification, inconsistencies in provider identification tables among the various levels of the claim/encounter data flow result in claim/encounter denials and, frequently, lost data. If a claim/encounter is received and the intermediary that is processing the claim has no record of that provider identification within its list of contracted providers, the claim is either denied or recoded to a miscellaneous provider code (“dummy code”). This will be edited and, most likely, denied further upstream in the claim/encounter flow process. Health plans surveyed, particularly multi-delegated health plans, reported a high level of errors and reprocessing resulting from inconsistent provider coding.

To address provider identification, health plans have implemented tables of multiple cross-reference codes for providers within their information systems, allowing matching on any number of identification numbers. They translate codes through these tables to their own internal code for their system and data purposes, and then translate it again to delegating health plan and/or state-required codes before submission. Potential for error is increased with each instance of translation.

Retroactivity

Eligibility for Medi-Cal is, for the most part, determined month-by-month depending on aid code. FAME data for each Medi-Cal beneficiary contains month-by-month eligibility status for 16 months and each month's prior data can be restated (retroactively changed) for any of these 16 periods. Most health plans, because of information systems limitations, overlay information from previous eligibility transmissions within their systems. By doing so, any visibility to the previous understanding of eligibility used in claims/encounter processing and provider communication is lost. As a result, services appearing on claims and encounters received during a current period often are denied because of ineligibility even when all systems (e.g., EDS's POS, health plan, and IPA systems) showed the member to be eligible on the date of service. These services rarely are reclassified by any entity should eligibility be restated on a future date. Since DHS does not accept denied encounters, data in these instances are lost.

The current DSS office procedure for placing member eligibility on hold while investigating status results in hundreds of thousands of retroactive adjustments each month. One large county hospital stated that it averaged 200 to 300 edits for each file (received twice a month) of retroactive terminations that must be manually entered in the system, which takes approximately two days to complete. Manual reconciliation required during monthly FAME processing for one large health plan takes three days "working around the clock" to resolve all issues to achieve a clean eligibility file reflecting every member's correct eligibility information and assignment to a PCP. Health plans surveyed cited ineligibility as the most common reason for claim/encounter denial.

Code Table Changes and Inconsistency

Code tables for service and diagnosis coding definition and validation (e.g., CPT, HCPCS, ICD9) are updated periodically and new table versions must be loaded to information systems involved in claim and encounter processing for systems to effectively perform data validation. As claim and encounter data are passed from providers and intermediaries to health plans and/or multiple health plans then on to EDS/DHS and MEDSTAT, inconsistencies in coding tables (i.e., an entity higher up the chain using an older code table version) can cause records to error out of processing. As data move up the encounter data chain, health plan systems typically are able to deal accurately with "old codes" from prior table versions and either translate or deny expired procedure and diagnosis codes. But "new codes" are considered invalid during automated adjudication, and claims are pended or denied. These claims/encounters, because of limited resubmission processing procedures, often are "lost" from the flow of data. A number of multi-delegated health plans, and a larger number of providers, discussed problems with outdated code tables higher along the data flow chain that result in erroneous denials and delayed submissions to DHS. The majority believes these problems are now resolved but believe they were responsible for significant levels of data loss in 1999 and earlier.

Health plans have expressed difficulties with DHS's process of notification of changes of codes. DHS has changed the edits to which they have EDS subject encounter data as well as the data dictionary to which the submitted files are compared, without notifying the Medi-Cal plans. One Local Initiative plan cited a recent example of DHS deciding to no longer accept a valid code related to a hospital semiprivate room charge without notification to non-COHS health plans. This one code appeared so frequently in the plan's hospital file that its hospital file was rejected.

CHDP PM-160 Requirements

Submission of CHDP data, by state requirement, is a totally manual process for most providers. A copy of the paper PM-160 form is to be sent to the county and to EDS for entry and forwarding to DHS. Data on

these forms, however, is critical for health plans in documenting care to children for HEDIS and other quality studies and for appropriately monitoring services to their members. Therefore, most surveyed health plans additionally require providers to submit PM-160 data directly to them, especially if FFS reimbursement is required. In multi-delegated health plan arrangements, health plans at each level need these data and in those instances, providers are required to send multiple additional copies to differing entities. Some providers surveyed stated they chose not to participate in the Child Health and Disability Prevention program due to this administrative complexity.

A number of different crosswalks, or code translation tables, are used to translate CHDP codes to standard CPT and HCPCS codes for acceptance into intermediary, health plan, and DHS systems. Some nonstandard coding has been added by the different entities to address care items on the PM-160 form that does not have a reasonable CPT or HCPCS equivalent. Bad data can result from this practice.

A number of health plans expressed confusion as to whether to forward PM-160 data as encounter data with their DHS submissions since format specification for encounter submission allow for a CHDP program code. Several health plans forward PM-160 data with their DHS encounter submissions. Some of these health plans flag the records with the "C" designation in the program code field to identify these encounter records as CHDP data from PM-160 information but are unsure of their own historical procedures for this coding. Others were unclear about the C program code designation and could not verify how their own PM-160 data are coded when submitted. Regardless of health plan submission, all known CHDP-designated encounter records (those identified by the C program code) are stripped from the files at DHS. PM-160 data that health plans submit without a program code designation go undetected and will be considered duplicate records to the paper form submissions by the providers to DHS and MEDSTAT.

Inexperience with Managed Care

Many of the problems Medi-Cal is experiencing with encounter data quality, submission rates, and timeliness, result from the relative inexperience of many of the entities in managed care. The surveyed provider and intermediary segments appear to have the greatest level of experience with managed care since many also contract with mainstream health plans with large commercial memberships. A number of the health plans serving the Medi-Cal managed care population have substantial membership in commercial managed care products and have built the knowledge, skills, systems, and processes necessary to effectively administer under managed care. A large number of Medi-Cal plans, however, have experience limited solely to the Medi-Cal managed care population and were developed within the last three or four years to respond to local community needs. They are learning the business of health plan operations as they are learning managed care. Although some of them have made great strides, others are still in the learning process.

Some EDS and DHS personnel also appear to be inexperienced in managed care but are learning. Many of the systems, processes, and approaches now limiting effective encounter submission and data control, however, were developed before there was sufficient understanding within these organizations of the requirements of managed care.

Silo Perspective

Throughout every segment of the eligibility and encounter data reporting chain, a tremendous source of confusion results from each participant's limited view. Each entity understands the data only so far as they are processed within their own walls and has little, if any, knowledge or understanding of the needs and uses for the data by others. Many of the entities, especially DHS, have significant silos within their

own walls and departments and have little comprehension of the overall picture for their organization, let alone the entire data flow. This silo perspective throughout the Medi-Cal health system has led to many poor interpretations, decisions, and processes that have impacted data quality (e.g., limited duplicate claims checking because each entity assumes the next is doing it, or calculating lag in encounter submission to equal that of FFS claims). Some entities expressed little interest in expanding knowledge and understanding. Unless these attitudes change, errors and misinterpretations can be expected to continue.

Encounter Data Flow: Segment-Specific Issues and Opportunities for Improvement

Additional issues and challenges specific to each individual entity and to each set of entities within a segment of the data flow chain also greatly impact data accuracy, volumes, and timeliness. The following summarizes the key findings within each segment of the encounter data flow chain and documents the most common areas where data loss, error, and delay occur.

Providers and Intermediaries

Levels of Automation

In general, the provider segment of the Medi-Cal encounter data flow chain is the weakest in terms of information systems and technology.

Hospital Providers - Hospitals are the most advanced within this segment with respect to automation. All surveyed hospitals are automated to some level for service capture and almost all have EDI capability for claim billing. Hospitals bill electronically to EDS for traditional FFS and have done so for years. However, very few of the hospitals surveyed are using EDI capability for Medi-Cal managed care. Most hospitals are creating paper UB92 claim forms and mailing them to the health plans. Hospitals cited the inability of most health plans to accept electronic UB92 data as the primary reason for paper submission, with a few notable exceptions. Additionally, hospitals stated that most health plans require that written documentation accompany claim forms in a number of cases (e.g., emergency department visits, specialized operation reports). This requirement precludes these services from electronic submission even if other formatting constraints could be resolved.

Physicians - Physicians are severely lacking in automated systems and EDI capabilities. Because physicians are usually the initial point of service, they are the starting point for all service data associated with member care. Lack of automation at this level severely hampers data availability throughout the remainder of the data flow chain. Use of billing service companies or outside data keying services improves this situation to an extent, but these intermediaries also add one more level of data exchange and delay to the process. Some IPAs provide data capture services for participating providers, but this is not always the case.

For those physician offices that are automated and have experience with traditional FFS Medi-Cal patients, most have abilities with either their own systems or through use of billing services to transmit claims by modem to EDS. Of the providers surveyed as part of this study, as well as other recent studies completed by Outlook within the Medi-Cal community, 58% of the physicians surveyed have electronic billing capability. Only half of those actually use this feature to transmit claims for other than traditional FFS.

Very few attempts, however, have been made to expand these electronic claims transmission capabilities to IPAs and health plans, especially when services are covered under capitation arrangements. Some 85% of physicians surveyed were willing to explore additional EDI opportunities. Of those, only 20% are willing to pay or share the cost for these services. While most agree that electronic transmission would reduce time-consuming tasks, they indicated they could not afford to bear the perceived additional cost of the service.

IPAs/MSOs - The majority of providers (95% of surveyed physicians) are affiliated with an IPA or other contracting and administrative entity for their Medi-Cal managed care business and a significant number (75% of surveyed providers) are affiliated with more than one IPA for Medi-Cal managed care. These affiliations add one or more levels of involvement to eligibility and encounter data flow.

Most surveyed IPAs are at least partially automated or use MSOs or other administrative service organizations to assist with automation needs. Electronic data exchange capabilities for these organizations, however, are quite limited and most IPAs have no ability to electronically accept encounter data from participating providers or to electronically pass the information to the health plans. Between limitations in EDI capabilities on the part of both the providers and the IPAs, the vast majority of claims/encounters received from providers are paper based. These consist of computer-generated HCFA 1500 claim forms, manually completed HCFA claim forms, UB92 forms, Superbills, or some type of encounter form and/or logs. Requirements vary greatly by organization.

Formats, Coding and Translation

Lack of Standard Formats - Directly contracted providers, IPAs, and intermediaries unanimously cite frustration with the multitude of unique formatting and submission requirements of the health plans for claim and encounter data. A number of health plans have greater levels of flexibility in formats and coding standards and take upon themselves the burden of translating and reformatting for their own needs and for satisfying DHS requirements. This, however, is not the standard case and a number of IPAs and intermediaries are using data management companies to sort and format data according to individual health plan specifications and forward encounter submissions. Once again, involvement of these data management companies creates an additional level of involvement, and potential data error or loss, to the encounter data flow.

For MSOs, multi-IPA entities, and data management companies, adding new network arrangements to existing encounter data uploads with health plans has been difficult in most instances. Changes to their systems as well as setup and procedural changes at the health plan, and testing and retesting necessary for successful implementation, often required two to three months and, in several cases, six to eight months. During this time, data are either held or are handled on paper, resulting in significantly higher potential for data error and loss and greatly reducing data timeliness.

Contractual Terms and Processes for Encounter Submission - Providers under managed care contracts have a variety of payment arrangements with the health plans, which can encourage poor service coding practices (per diem and global rates) where service level detail is not needed for payment calculation (e.g., one encounter is sent for the service "total OB care," or one line item is sent for each hospital day regardless of services provided). This is usually the result of limited sophistication in the automated billing systems of the providers to report both line item detail while calculating and billing at a consolidated pricing level**.**

A few providers with experience in FFS Medi-Cal expressed confusion as to why they are required to submit FFS claims within one year from date of service while managed care Medi-Cal encounters must be submitted within 90 days. One physician in the Los Angeles area (who operates four separate offices with 90% of his practice in Medi-Cal) illustrates the lack of understanding of the importance of encounter data submission. When asked how he processed encounters, he replied that encounters are not processed. All encounter forms for his capitated patients are filed "for possible future reference." When asked if the IPA was concerned about not receiving encounter data, he was unaware of any problems/feedback. But he does generate HCFA 1500 claim forms for traditional FFS Medi-Cal and they are mailed weekly.

In general the contractual language and terms for encounter data submission by providers to health plans are quite limited beyond the specification for 90-day turnaround for non-COHS. When more specific terms are included in contracts, they are entirely different from health plan to health plan. As the newer Medi-Cal health plans have gained more sophistication in receiving and processing data and their need for improved data for HEDIS and DHS compliance has increased, terms and compliance language with providers has improved. Health plans, for the most part (85% of health plans surveyed), are including encounter submission compliance language in provider contracts and are increasing compliance incentives (or disincentives for noncompliance). Most providers, however, either are not aware of specific requirements because of IPA /intermediary involvement in the contracting process or are confused by the variations in terms.

Additionally, only about 50% of the health plans have established effective monitoring programs for provider compliance. Those who do monitor are sometimes hesitant to enforce the provisions of their contracts and prefer a more collaborative approach. One plan revealed it has a provider oversight committee that can enforce sanctions against its physicians for poor encounter data submission. The plan's view, however, is that if the physician is doing well in other areas, it will not take a punitive position and enforce the sanction provision. The plan prefers to work with its contracted physicians to improve performance. Three other plans interviewed all held similar views.

Communication and Understanding Challenges

Providers expressed lack of understanding of the roles of the various players in managed care, especially in the multi-delegated arrangements. They are unclear about which one to call and when (i.e., IPA, MSO, Plan Partner, or health plan) and have significant difficulty in determining where claims and encounters should be forwarded. Some hospitals cited internal billing processes in which five or six copies of UB92 bills are printed and forwarded to all possible parties in hope of payment. Many physician offices associated with IPAs had little understanding of contracts beyond immediate IPA arrangements and had difficulty responding to questions related to their health plan participation.

Providers throughout the survey and interview process demonstrated a general lack of understanding of the importance and use of encounter data by health plans, DHS, and legislators. They apparently do not draw a connection between the lack of encounter (administrative) data and the number of chart reviews performed for their patients to gather data for HEDIS and other quality initiatives. In general, they were unaware of health plan, DHS, and legislator use of the data for the measurement of provider performance and quality of care assessment.

Health Plans

Gaining an understanding of the data exchange processes and issues within the health plan segment of the Medi-Cal environment is made more complex by differences in plan models (COHS, GMCs, Two-Plan) throughout the state and by the differing levels of delegation within a number of health plans.

COHS versus Other Plan Models

A significant difference in data collection, verification, and reporting exists between COHS and other plan models. As depicted in Figure 3, COHS receive and transmit data directly with DHS without processing intervention by EDS. Interviews with DHS ITSD management revealed major differences in expectations for COHS (which are classified by DHS as fiscal intermediaries much like EDS) and expectations for other plan models. COHS were implemented in 1983, preceding the significant move toward greater levels of managed care in the state and the contractual arrangements with COHS, especially with respect to data exchange, remain in line with the more limited system capabilities and understanding of managed care data in effect at that time. COHS were not able, under arrangements at the time of this report (April 2000), to take advantage of a number of newer capabilities available to the other plan models (e.g., MESH, error reporting) that allow expedited data exchange and better levels of data acceptance and accuracy.

Multi-delegation Arrangements

Implementation of Medi-Cal plans using multiple levels of health plan delegation (e.g., a Local Initiative with seven health plan partners, a COHS contracting with four health plans and eight provider delivery systems, etc.) creates additional challenges for data exchange. This is primarily a result of adding at least one more entity involved in handling, using, and transmitting data within an already-complex data flow chain. Mapping the data flow through multi-delegated health plan arrangements is quite complicated, especially when participants in these arrangements have other more-direct health plan arrangements in other counties within the state. For example, one large commercial plan is a delegated Plan Partner of a Local Initiative in one county and of a COHS in another county. The plan also participates in both GMC counties and further acts as the commercial plan for the Two-Plan model in four other counties.

Each new level in the data flow chain creates greater opportunity for data loss and increased inaccuracy, if systems and processes at the higher level are not as strong as those in preceding levels and will, invariably, cause delay in moving the data on to DHS. The extra level also could provide additional opportunity for data monitoring, control, and editing if superior systems and processes are in place. This, however, is the case in only a few instances.

Information Systems Capabilities

Automation - Surveys and interviews found the levels of automation and sophistication of technology within the health plan sector to vary significantly from quite poor to moderate. Although some "best practices" for specific functions exist and are cited later in this report, few of the Medi-Cal plans surveyed were fully automated for collecting, editing, monitoring, and transmitting eligibility and encounter data.

All the health plans have automated systems, and in many cases multiple automated systems, for eligibility and claims payment. These systems vary in levels of sophistication for electronic data transfer and editing and even the more common systems (e.g., the many HSD Diamond BBX installations) vary in these respects based on software setup, add-on features, and control table maintenance.

Data Editing and Validation - Frequently the more robust capabilities of the automated systems used for health plan claims processing are not the same systems used for encounter data processing. The majority of health plans have bypassed stringent claims edits and instead have loaded encounter data to either less robust systems or directly to databases with limited or no editing capabilities. This is a very common practice among the health plans surveyed for data from pharmacy, vision, and lab vendors. A number of health plans reported "turning off" edits within their system for encounter data processing to: work around code table and translation errors (as discussed later in this report); shorten processing time on systems; and/or reduce the need for extensive file setup with systems when claims pricing and payment do not apply.

But "bad data" (i.e., encounters with inaccurate service and diagnosis coding, duplicate records, incorrect member or provider identification, procedure to age/gender discrepancies, etc.) that are normally detected by automated claims adjudication software are missed by these less sophisticated encounter processing add-ons and workarounds and are, subsequently, handed on to the next level of the encounter flow chain.

Data Warehouses - Most health plans have either implemented or are developing data warehouses for improved internal reporting. Most plan to use these databases for gathering and grouping data for DHS submission. These will help to improve data accuracy only to the extent that good "scrubbers" and edits are in place to assure data loaded into the warehouse are correct.

Formats, Coding, and Translation

Nonstandard Formats - Although a large number of the vendor software systems used by the Medi-Cal health plans have capabilities for industry-standard electronic claims acceptance and transmission, DHS format requirements preclude use of these capabilities for Medi-Cal encounter submission to EDS or DHS. COHS must translate claims information to the MEDS35 File Format while the remaining plans must translate to the DHS-proprietary Managed Care Encounter Record Format. The more limited focus of these formats results in loss of data fields.

To avoid reformatting problems, a number of health plans require providers, vendors, and delegated plan partners to submit encounter data in the DHS-required MEDS35 File Format. But the 35 File Format supports fewer data, especially related to hospital services (e.g., admitting diagnosis, DRG).

For health plans not requiring submission in DHS-required format, automated translation and reformatting processes have been implemented. These significantly reduce the burden on providers and vendors; but all health plans using these tools discussed difficulties with translating and reformatting some types and formats of claim records and most acknowledged some data loss because of unresolved translation errors. As an example, one plan uses a software translator program to reformat claims and encounters for loading into its main system. Claims/encounters can be submitted in two different formats and are translated or reformatted to conform to the ANSI 837 4010 version format. The process for the translation was not fully developed and documented at the time of our interview and it is unclear if all erred records are corrected, or if some are deleted. Limited effort is made to obtain a resubmission of the data.

DHS code tables used by EDS in the CA-MMIS for encounter processing were not timely updated in the past. DHS reported this was due to efforts by DHS to maintain consistency in the code set versions between managed care and FFS Medi-Cal. But FFS code tables were tied (within DHS and EDS) to pricing/rate tables that are subject to a lengthy approval processes for updates. As a result, health plan claims and encounters submitted to EDS and DHS with appropriate new codes were erroneously denied. Several health plans, however, believe that this

problem was responsible for much historical data loss and cite it as a primary reason for massive resubmission of data in 1999.

Recently, EDS implemented a change to the CA-MMIS that allows separate and more current code tables for managed care processing than for FFS processing and this source of confusion and data loss is no longer an issue.

Contractual Terms and Processes for Encounter Acceptance

Incentives for Encounter Submission - As previously discussed, submission compliance and incentives are increasingly being added to provider, intermediary, and multi-delegated health plan contracts. A few use a direct cash incentive (i.e., $0.25 per member per month) to encourage submission. Others use capitation withholds with redistribution to submitters for timely and accurate data. Still others use deductions from future capitation payment as a disincentive for noncompliance.

Monitoring of Data Submission - Effectiveness of incentives and disincentives, however, depends largely on the abilities of the recipients of data to monitor submissions and measure data quantities and accuracy. Effective monitoring is addressed on three levels:

1. ***Receipt of Data -*** Monitoring ability for many health plans is limited to "did we receive any data." Logs of encounter file receipts from provider and/or intermediaries and from multi-delegated health plans are maintained, to some extent, by all health plans surveyed. Record counts and dates are maintained. In most cases, some communication or action is initiated by the health plan if no data, or exceptionally low volumes of data, are received. Nearly 90% of the plans surveyed did no further monitoring than receipt.

2. ***Volumes of Data -*** A few health plans have implemented some limited attempt at measuring volume of data received against an internally developed benchmark number of encounters per member per year (PMPY). The benchmark numbers used range from 2.28 to 3.5 PMPY. One plan interviewed assumes encounter submissions are complete if annual office visits (CPT Codes 99201-99215) per 1,000 members are equal to or greater than 2,750 visits (i.e., 2.75 visits per member per year). The benchmark is based on 75% of the actuarially determined annual visit rate per Milliman & Robertson.

   Several health plans have developed more-complex service benchmarks for hospital and other types of encounters. Many of the health plans surveyed expressed a desire for standard encounter volume benchmarks for Medi-Cal managed care members. At one plan, if a Plan Partner does not meet its target for timely and complete submission, a corrective action plan is established, and the Plan Partner is subject to sanctions. This approach has dramatically increased encounter data submission. Prior to the program, the plan was receiving 17% of the number of records it would expect for its membership, with an average lag time of seven months after the date of service. After the program, the submission rate increased to 42% and the lag time decreased to four months. The plan believed that further improvements would require focusing on submission of data from the providers to the Plan Partners.

3. ***Quality of Data -*** As a result of system editing capabilities and workaround systems and processes discussed above, almost 50% of the health plans cannot determine the accuracy of data received. Other health plans with better systems and editing processes know the types of errors from their contracting entities and a number have implemented processes for sending files of data errors back to each contracting entity for resolution. Few health

plans, however, are able to report accuracy of data from their contracting entities beyond raw numbers of errors.

Error Rejection - All health plans surveyed had some level of data editing in place and most report errors in a paper format to submitters. A few health plans have attempted to somewhat mimic the DHS method of measuring errors in terms of 1% and 5% error rates (discussed in the DHS finding below) and rejecting complete files when error rates exceed these limits. Because of the many coding, identification, and translation problems cited above, it is common for a few bad codes to cause a batch of submitted encounters to reject. This approach can result in three situations that seriously jeopardize levels of completeness and timeliness of data: (1) it prevents effective use and further submission of good data until bad data issues are resolved; (2) it encourages submitters to "strip out" bad records to pass submission levels and the stripped out data are never recovered (a number of intermediaries and multi-delegated health plans admitted to using this approach); and (3) it encourages delays in sending data until large batches are accumulated to reduce likelihood of hitting thresholds.

Resubmission Control - No health plans surveyed have effective means of tracking whether rejected records are subsequently resubmitted. Most health plans believe that rejected encounters are probably lost.

Data Reconciliation - A few of the health plans surveyed discussed recent attempts to reconcile encounter record counts with submitters, but most do not.

Encounter Submission to EDS/DHS

COHS Submissions to DHS - COHS submit encounter data directly to DHS on tapes using the MEDS35 File Format. No electronic submission of data is available at the time of this report. Error reporting from DHS for COHS is limited to notification of total file rejections as a result of tape header or format problems. They receive no information as to data errors on submissions. Two COHS cited issues with the limited and delayed communication from DHS and have developed their own controls to be assured DHS received their tapes.

Other Plans Submissions to EDS - Non-COHS plans submit encounter data to EDS using the Managed Care Encounter Record Format. In 1999 most reporting by EDS was submitted on tape due to CA-MMIS limitations in file size (140,000-record limitation). But most now submit data using MESH.

There are significant differences of opinion between health plans and EDS/DHS as to the turnaround times on submissions. Health plans have reported four to six month delays in receiving notification from EDS of errors and acceptance. EDS and DHS both state they are meeting one-month turnaround cycles within each of their organizations. One Local Initiative, however, reports that even after a file is accepted for processing by EDS, it could be weeks or even months to obtain feedback on the file processing status or data errors within a file. DHS policies and procedures prevent EDS from returning the error report directly to the health plan. It must be routed to DHS for review first. This step often results in one, two, or more months passing before the plan received feedback on the data errors, delaying resubmission and correction of any underlying problems with subsequent data. Both the plan and EDS had proposed to DHS that EDS simultaneously send copies of error reports to both the plan (to allow them to proceed with corrections) and DHS (for oversight), but DHS had been unwilling to modify the process.

Communication and Understanding

Communication with Providers and Intermediaries - HEDIS compliance reporting has increased awareness of the importance of encounter information for all Medi-Cal health plans. The high costs associated with performing medical chart reviews to compensate for missing administrative data doubly emphasizes this importance, but most health plans have not instituted effective communication plans with their provider communities. Most health plans do not have effective provider profiling or comparative reporting in place to share with their providers and, thus, give visibility to impact of poor encounter reporting. Most providers have not gained sufficient understanding of the connection between data submission to health plans (or intermediaries) and the lengthy medical review processes imposed by all health plans on their organizations during quality audits and HEDIS reporting. Several of the health plans acknowledged that effective training of providers and assistance with comprehensive data submissions could significantly reduce HEDIS compliance costs, and a few have plans for addressing this in the coming year.

Communication within Health Plans - In general, health plans' IS staff who support systems (e.g., maintenance of translation and code tables, development of interfaces and electronic submission programs, etc.) lack in-depth understanding of health care data, health plan operations, and Medi-Cal reporting requirements from the DHS perspective. During the health plan survey process, it became evident that internal health plan communication is problematic between technical IS resources programming and supporting encounter data submissions and user departments more familiar with the data interpretation and use. This is the case for a number of health plans. Many of the processes in place to select and send encounter data to the state were developed solely by IS programmers/technicians, with little or no understanding of health care, who literally interpreted and followed formats and field specifications from DHS. In most cases, this was done without understanding the use and significance of submissions and without benefit of operations or clinical staff to help clarify and interpret. IS resources emphasized submitting data to pass editing rules and achieve acceptable submission rates rather than submitting all data.

In some instances, operation users were not aware of data problems preventing full data submissions so that corrective action could be addressed. Most health plans acknowledged this deficit, but many feel as though this has now been addressed and report submission and acceptance rates greatly improved. During our on-site meeting, EDS commented that they had seen a lack of communication among department staff within health plans. As an example, EDS sent a notification on a system change sent to the "specified contact" person for encounters but that specified contact neglected to inform the IS department of the required change.

Communication with EDS and DHS - COHS and GMC plans expressed significant issues with the timeliness of notifications by DHS operational instruction letters (OILs) of new edits, processing instructions, etc. They stated that notification periods were often insufficient to allow for programming changes to information systems to meet deadlines for compliance within their own organizations, and sometimes within the systems of their contracting entities. One COHS reported its frequent frustration with the state's short notification for implementing new or modified policies and procedures and new requirements. Often, changes in policies and procedures did not take into account the amount of system change that would be required to implement and did not allow enough time for changes. They were concerned because changes within their system in particular, and in the systems used by their health network, could require varying amounts of time to thoughtfully implement system modifications. Their current mainframe system required a long lead-time in order to implement changes. Software modifications commonly require 90 days advance notice to implement. A GMC plan commented

that improved communication and standard implementation time frames for software modifications required by DHS would improve their ability to respond to required changes.

All health plans interviewed expressed confusion as to the processing steps performed by EDS and/or DHS that could result in some of their data being omitted from reporting through the MEDSTAT Panorama database. All expressed skepticism as to the accuracy of the data presented within Panorama and a strong desire for some level of data reconciliation with the MEDSTAT data before further release of data and/or Panorama access to legislators and the public.

EDS

EDS was included in the Data Mapping Project because of its key role as DHS's fiscal intermediary (FI) and data manager of both the state's Medi-Cal eligibility and encounter data processes. DHS has held the FI contract with EDS since 1987. EDS operates and maintains the California Medicaid Management Information System (CA-MMIS) for DHS. The system is in the public domain and was essentially in place when EDS took over as fiscal intermediary in 1987. The existing contract was renewed in 1992 and was to remain valid through June 2000. The contract has since been extended through June 2002.

EDS's contract with DHS has been amended through DHS-initiated system development notices (SDNs) to modify and enhance the CA-MMIS and adapt it to the continually changing demands of the Medi-Cal program. EDS is collecting, processing, and submitting encounter data for Medi-Cal managed care members. Adding managed care encounter processing to the EDS responsibilities was through SDN 3009 in 1993. Outlook was advised during our interviews with EDS that this SDN was vague in its specification, instructing EDS to develop programs and procedures to receive and process encounter data files submitted by the Medi-Cal managed care health plans. Although EDS has strong claims processing and validation programs in place for Medi-Cal FFS processing, this foundation was not included in the encounter processing applications.

Information Systems and Controls

The CA-MMIS system architecture for Medi-Cal processing is based on the 1972 HCFA-mandated Medicaid Management Information System. As discussed above, the newer programs developed for processing encounter data are far more limited in editing and validation capability than the FFS claims processing system and retain much of the older batch processing design and structure. Like the DHS systems, the CA-MMIS encounter processing system relies heavily on nightly batch processing.

Electronic Data Exchange - EDS and DHS have collaborated on the development of MESH, a private, secure network used to transmit/receive eligibility and encounter data from/to the non-COHS health plans. The health plans see MESH's recent implementation as a significant improvement to the prior years' tape processes. File sizing issues with MESH had caused difficulty for the larger health plans with greater volumes of encounter data, but this appears to have been corrected in late 1999.

Health Plan Data Submission

Processing Timeliness - EDS has a contractual requirement with DHS to process all encounters within 30 days of receipt. Encounter submissions are usually received throughout the month from most non-COHS plans although a few continue to submit data once a quarter, at their 90-day deadline. Staffing and workload balancing for the random arrival of data are a challenge to EDS. EDS states that it continues to perform within its 30-day window. However, information received during the on-site visit with DHS revealed it has taken up to three months to process a very large

submission of data from the state's largest health plan. A number of other health plans cited lengthy delays in their submissions processing in the past but in general feel timeliness is improving.

Additional delay occurs because of the DHS DMU review that must be conducted on all error reports (unless the file has been rejected) before final processing can be performed. This can be a more lengthy process if a health plan is in "test" status for any or all file types. DHS requires plans to go through an extensive testing phase, which can range from three months to one year. Test status is a classification for a health plan that has not achieved sufficient numbers of successful submissions. Health plans in "production" status have a more limited number of error reports and a reasonable track record of success, thus review is more expedited. DHS DMU stated rapid turnaround of reports (one day) for plans in the production stage, but EDS referred to lengthier waits at times, which appear to have resulted from insufficient staffing levels within the DMU.

Manual Intervention/Additional Work - Plans are required to send encounter data files separated by plan model type (GMC, Two-Plan) by claim type (e.g., one large commercial plan submits 14 files). These requirements and limitation force additional work (and manual intervention) upon the health plans to submit data and comply. For very large plans this creates significant opportunity for error and for missing sets of records.

Data Submission Monitoring - The CA-MMIS system does not have edits in place to monitor/report encounters received by date of service (DOS). As a result, EDS has no ability to monitor the submission of encounter data arriving beyond 90 days. A manual log is in place and is used by EDS to manage file submissions by plan, but there is no formal process to monitor either the timely receipt of data or the volumes of data.

Quality of Data - Encounter data editing is limited to DHS's guidelines of 1% and 5% error types discussed below under Data Accuracy and Limitation.

Resubmission Control - DHS does not require tracking of resubmissions of rejected data. Consequently, no process is in place at EDS to track that rejected files are subsequently resubmitted.

Data Reconciliation - Because DHS does not require the maintenance of databases of encounter information within the CA-MMIS, EDS cannot assist health plans with reconciliation of encounter data sent by the plans versus encounter data processed by EDS.

Data Accuracy and Limitation

Error Rejection - The current methodology for processing encounter files is to either accept all records on a file or fail all records on a file. To be accepted, the file must pass the error thresholds set by DHS. File failures fall into one of three categories: (1) critical errors (e.g., header record not present, file not readable); (2) 1% errors (e.g., 1% or more instances of a provider type code not on file, invalid date of service); or (3) 5% errors (e.g., 5% or more instances of a procedure code not found on file, Medi-Cal beneficiary ID number, SSN, or CIN is not eligible for services). See Attachment F for a complete description of error categories taken from EDS's internal encounter processing manual. See Attachment G for details on editing criteria across state systems.

An SDN has been created by DHS (but not yet implemented at the time of our interviews with EDS) to improve the CA-MMIS system for record level acceptance/failure processing of the

encounter data. Neither EDS nor DHS was able to provide Outlook with any estimate as to when implementation of this system improvement would take place. With record-level rejection the current error thresholds (1% and 5%) would be eliminated and the "critical errors" would be revisited. For some of the health plans this would be a welcome change, but many of the health plans' systems are only able to submit complete files and are not currently able to resubmit only corrected records.

Lack of Relational Editing - SDN 3009 did not require or support relational editing (e.g., OB procedure not appropriate for a male or a well-child visit not appropriate for a 64-year-old) in CA-MMIS on submitted encounters. EDS stated the primary reason this was not implemented in the initial design was time, cost, the questionable value at the earliest stages of reporting, and the state's desire to avoid additional burden to the plans. DHS has directed that demographic data used in processing encounter data be obtained from MEDS as opposed to using demographic data submitted with the encounter from the health plans. If the MEDS data are inaccurate, then relational edits fail, whereas the relational edits would not fail if the demographic information associated with the submitted encounter had been processed. DHS believes that the MEDS demographic data are more accurate than the health plans' and that using demographic data from the encounter could increase opportunities for Medi-Cal fraud (i.e., multiple persons using one Medi-Cal beneficiary card) and cause the health plan demographic data submitted on encounters to be inaccurate. Without relational edits, however, neither case will be caught.

Inaccurate Data - Medi-Cal encounter data containing acceptable levels of 1% and 5% errors are not stripped. Instead, these records remain on the file and are submitted to DHS. The 1% and 5% error threshold is based on the number of error records vs. the total number of records on file. Both DHS and EDS expressed concern that some plans have figured out how to "game the system," such as resubmitting the same file without the error records or adding enough "clean" records so the error threshold is not met. In either case, EDS is forced to reprocess the same files and records multiple times. Additionally, there is greater opportunity for missed data since error records may or may not be corrected and resubmitted.

There are a number of data errors DHS considers to be noncritical (e.g., level 1 errors are fields with incorrect format; level 2 errors are fields with invalid content) and therefore are accepted by the CA-MMIS and the data are forwarded to DHS. If a large number of errors occur on a specific file or a particular plan continues to submit files with a large number of errors, EDS may submit a report to DHS, and DHS may make the determination to reject the file, but there is no formal rejection process. According to EDS, its contract with DHS does not give it the responsibility or the authority to edit or validate the data differently than as instructed by DHS.

Potential Duplicate Records - The CA-MMIS batches encounters and sends them to DHS. Due to system limitations, EDS maintains no historical encounter database/file and therefore no comparative database for duplicate checking is available. Duplicated checking is limited to verifying that no duplicate encounters exist *within the same submission* batch. Should the planned SDN for record level acceptance/failure be implemented without also implementing a historical database for verifying duplicates, duplicate records can be expected to increase significantly, especially in light of the limitation of many health plans to resubmit individual errored records.

Drug Formulary Edits - Health plans with expanded drug formularies have difficulty with the DHS/EDS system edits on pharmacy files. The CA-MMIS system rejects all NDC codes not in the DHS formulary even though the health plans are at financial risk for the pharmacy expense and willing to offer an expanded formulary. This results in lost medical data for members receiving nonformulary medication.

Nonstandard Coding - Children Management Services (CMS) requires nonstandard coding schemes for CHDP data. This requires additional work, as the data must be "cross walked" to the standard coding protocol for use at MEDSTAT. Additionally, the coding is open to greater interpretation at the provider level, as providers are required to code the service in nonstandard (and thus less familiar and subject to interpretation) coding schemes.

Nonstandard Process - Processing of PM-160 informational forms for Medi-Cal managed care members varies widely per plan. Providers are required to conform to many unique requirements by various health plans. This can include the completion of specific fields on the form unique to each plan, generation of custom output unique to each plan, generation of HCFA 1500 claim forms in addition to the PM-160s by certain plans, as well as differences in distribution by plan. This leads to confusion, additional work, and the potential for error at the provider level.

Duplicate Records - Health plans do not fully understand the requirements for submitting CHDP data to EDS. According to EDS, plans are to identify the incoming CHDP data by inserting a "C" in the program code field of each CHDP record. Additionally, the health plans are to submit the data with the nonstandard codes intact, as the translation to standard coding occurs once the data are submitted to ITSD. Any variance in the submission of CHDP data from the health plans (e.g., missing the C or translating the standard coding) could lead to the duplication of data, as the CA-MMIS may misinterpret and process the data as medical encounter data.

Communication and Understanding

Communication with Health Plans - During earlier health plan submissions, many problems existed with EDS's feedback, health plan error, and general noncompliance. To reduce problems in collecting encounter data, DHS asked EDS to set up the Encounter Data Unit (EDU) to work directly with the health plans to improve the collection of data. The limited staff budgeted for EDU (five at the time of Outlook's interview) assists in the testing of the encounter data submission process with new plans; maintains ongoing, individual relationships with existing plans submitting data; and documents ongoing plan performance. Health plans surveyed reported improved relations with EDS as a result of the EDU.

Some miscommunication occurs with health plans because of EDS's limited understanding of what happens to the data once they leave their hands. Health plans believe that EDS performs *all* edits. If a health plan wants to know if a specific data problem is edited and discarded, they have no understanding of the different levels of editing at EDS, DHS, and MEDSTAT. EDS speaks from its own perspective regarding the processes and CA-MMIS, yet its responses are interpreted more broadly by the health plans. As MEDSTAT Panorama use increases in the future and health plans begin drilling down on the data provided, they will see that many of the problems about which they inquired are, indeed, edited out.

DHS

DHS is the ultimate recipient of Medi-Cal encounter data and is the entity dictating the formats, schedules, and specifications for encounter submission, processing, storing, and reporting.

DHS has a complex internal organizational structure for the support and use of eligibility and encounter data in addition to its direct ties to supporting vendors (i.e., EDS and MEDSTAT). Internal to DHS, Medical Care Services (MCS) operates the Medi-Cal program, including the programs responsible for eligibility, scope of benefits, reimbursements, etc. Four divisions within the Medi-Cal program interface

with one another as well as outside providers, health plans, and vendors/ intermediaries in order to gather, process, analyze, and report on eligibility and encounter data. The Medi-Cal Eligibility Branch (MEB) of the Medi-Cal Policy Division (MPD) oversees the eligibility process for Medi-Cal. Medi-Cal Managed Care Division (MCMCD), Data Management Unit (DMU), monitors the plans encounter data submissions.

In June 1996, DHS initiated the Management Information System/Decision Support System (MIS/DSS) Project, an independent office created by MCS to serve all of the divisions in MCS as well as other parts of the DHS. The objective was to procure and oversee the development of a MIS/DSS data warehouse. This warehouse is being completed in conjunction with MEDSTAT and is discussed later in this report.

Information Systems and Controls

Much of the supporting technology for eligibility verification, encounter collection, validation, and reporting for DHS is done through EDS and MEDSTAT. DHS has a large (but antiquated) set of IS program modules for formatting, sorting, merging, and sending data to other entities (e.g., federal government, state agencies, COHS, etc.). As with the CA-MMIS at EDS, most predate managed care and have been modified, to some extent, to meet these newer requirements. The system relies heavily on nightly batch processing and updates that add to the delay in current data availability (e.g., worker alerts), but several more "real-time" functions have been added (e.g., the daily file) to improve the timeliness of information.

Electronic Data Exchange - DHS collaborated with EDS on the MESH extranet for eligibility and encounter data exchange for non-COHS health plans. COHS, EDS, and MEDSTAT do not have any electronic data exchange abilities with DHS. This causes delay in update (usually one additional day) and does not provide acknowledgment of data transfer.

Health Plan Data Submission

Workload Issues - DMU reviews GMC and Two-Plan Model health plans' encounter submissions both for the health plans in test status and those that have passed the testing phase. Plans in test status receive more detailed error analysis and reporting on their submissions than health plans that have moved to standard production status. Those in production status get summary reports on error type. The DMU standard turnaround time on a file for a plan not in the testing phase is one day. But if DMU receives a large volume of files, the one-day turnaround is not met.

Some of the health plans interviewed expressed confusion as to the "test" versus "production" status. One plan, which has experienced lengthy delays in getting submissions processed by EDS, was told that the delay was a result of its test status even though DMU's approval period is stated to be one day. The plan was unable to obtain any clarification on what it must do to move on to production status. No policy or clarification was provided during the interviews with DHS. Another plan, in production status at the time of this survey, did not understand why its submission error reporting was more limited than previously provided in the test phase.

Data Submission Monitoring

- ***Data Receipt -*** DHS has no monitoring in place for COHS data beyond a general check that some data are received each month. DHS performs no data logging or control checks and does not communicate to COHS on the records processed and accepted. According to DHS, it is EDS's responsibility to monitor other health plan data.
- ***Data Volumes -*** DHS currently uses no mechanisms to measure volume of data against benchmarks. Outlook was told this is one of the intended uses of the MIS/DSS system being developed by MEDSTAT.

- ***Data Quality -*** There is no formal process for editing data submitted from the COHS. This process does not match the existing editing process performed at EDS for non-COHS health plans. DHS stated that this minimal amount of editing was justified because the COHS data are received from organized payment systems. The COHS are considered health insuring organizations (HIOs) by DHS and as such they are expected to have edited the data prior to submission (during their claims payment process). But two of the COHS are not structured as HIOs (i.e., both have subcontracted health plans serving a large percentage of their members). Also, COHS have capitated PCPs, and there is no reason to expect these data to be cleaner than other Medi-Cal managed care plans' PCP encounter data.

Data Reconciliation - There are no data reconciliation processes in place for either the COHS or other health plans. This was cited as a significant point of frustration by almost every health plan interviewed since DHS data are the basis for the MEDSTAT reporting being released to legislators. Health plans would like to understand which portions of their submitted data have passed through to the DHS and MEDSTAT systems and to validate and balance this with their own submission records.

Data Accuracy and Limitations

Nonstandard Formats - The nonstandard 35 File Format, the Managed Care Encounter Record Format, and the CHDP Confidential Screening/Billing Report (PM-160) are required by DHS for the various claims/encounter submissions. Commercial HMOs and insurers throughout California have adopted more-standard formats, including the NSF, Western Regional Format, and ANSI X12 837, and have adapted their information systems to accept and send data in one or more of these formats. Meeting DHS specifications requires additional translation, increasing the opportunity for introducing data error. More important, the 35 File Format supports fewer data than these formats, especially related to hospital services (e.g., admitting diagnosis, DRG).

Potential Duplicate Records - For records corrected and resubmitted in future files by the health plans, there is no checking for duplicate records. DHS has no duplicate record checking beyond the current monthly file. As cited under the prior section on EDS, an SDN has been created to implement record-level acceptance/failure processing of the encounter data. The current error thresholds (1% and 5%) would go away and the "critical errors" would be revisited. However, many of the health plan systems cannot currently resubmit just the corrected records, and duplicate record/file resubmission may substantially increase as a result of this SDN.

Data Removal - Records with C in the program code field (CHDP) and records with D (denied) in the adjudication status code field are removed and not sent to MEDSTAT. According to DHS, these records are not used any further for reporting or analysis. Additionally, records not matched with a CIN are not forwarded to MEDSTAT. Any services that have been performed while a recipient is a Healthy Families member (aid code 9H) are removed as well. This is based on eligibility data in MEDS, which, as discussed earlier in this report, are often inaccurate. No reports or detail on the volume of dropped records were made available by DHS for review by Outlook as part of this data flow project. By stripping denied records, DHS limits use of the data for purposes of identifying fraud and for various reporting programs (e.g., HEDIS), since the user of the data cannot see the entire record of care.

Errors Not Corrected - MEDSTAT creates two reports for review by DMU. The Failed Operations Log and the Unexpected Value Report. From these reports, the DMU identifies code table values that must be updated for future MEDSTAT processing. Under the current process, the records identified with unexpected values are not fixed; only the records coming through on the next processing will be correct.

Incentives for Encounter Submission

Deferral of Withholds - The Medi-Cal health plans' contract with DHS provides for withholds from capitation payments if the plans do not meet the "completeness and timeliness" requirements for submission of encounter data provisions. At the time of this project, DHS had deferred implementation of the withholding provision because the data were not yet available in its database to allow calculation of the measures in the manner specified by the contract.[14]

Communication and Understanding

Health Plan Communication with DHS - The majority of interviewed health plans expressed frustration at the difficulty in communicating with DHS and getting prompt and accurate responses to questions. COHS plans, which work more directly with DHS than other plans, were more vocal in their need for direct communication with knowledgeable management within DHS. A number of plans stated that their written questions to DHS management for clarification either go unanswered or are responded to in a more limited manner by an analyst by e-mail or telephone. They stated that no formal sign-off by DHS management accompanies the clarifications to give official standing to the responses, leaving the health plans unsure of how best to proceed.

DHS Communication with COHS – COHS plans, like EDS, receive operational instruction letters (OILs) directly from DHS notifying them of changes to codes, policies, and procedures that have many potential impacts on encounter data submission. DHS reported that as many as 300 OILs are published a year. COHS plans reported that they were frequently frustrated by the short notice provided by the state for changes and felt DHS did not take into account the time required to make information system changes necessary to comply. DHS believes they offer sufficient notification. Clearly, there is a disconnect in communication between DHS and the COHS.

DHS Communication with GMC and Two-Plan Health Plans - Non-COHS plans do not receive OILs from DHS. DHS communicates OILs to EDS for inclusion in its systems and processes, and occasionally these include code table updates for encounter validation. DHS expressed its opinion that GMCs and Two-Plan models are not held to compliance with OILs and therefore do not need to be included in this communication. But data submitted to EDS that is not compliant with code changes addressed in the OILs results in error or rejection of records. As previously mentioned, one plan surveyed cited a recent example when DHS decided to no longer accept as valid a code related to a hospital semiprivate room charge. Non-COHS plans were not notified, but the change was made to edits at EDS. This one code was found so frequently in the plan's hospital file that error thresholds were exceeded and the health plan's entire hospital submission was rejected.

Encounter Data Work Group - This group is an effort started by DHS to provide a venue for discussion and resolution of encounter data issues. The members of the group hoped it would be the source of ideas and solutions for many of the encounter flow issues and challenges discussed in this report. The group is comprised of members representing health plans, EDS, DHS, MEDSTAT and related health care organizations. The objectives of the group, as explained to Outlook, are to openly discuss the issues that impact timely and accurate submission of encounter data, both internally within each member's organization and across organizational boundaries, and to seek systemwide solutions to the problems.

At the start of this data-mapping project, members and the organizations they represent held great hope that solutions could be reached in this forum. But after meeting for nearly one year, the

interviewed health plan group members' consensus is that DHS has not taken the effort seriously and is unwilling to move forward on the proposed changes developed by the group. Health plans discussed their frustration and disappointment in the limited response by DHS to the final list of recommended changes, many of which require some action on the part of DHS to move forward.

DHS Perspective - The MCMCD DMU expressed a strong desire to improve communication with the health plans and is working diligently toward that end. Because of severe staffing shortages it has been difficult to provide as much service as they would like. With the hiring of additional staff, which recently has been approved, they feel they will be better able to improve their processes and communication with the health plans.

A tone of annoyance and impatience with the health plans and a discounting of their complaints and concerns were evident in a number of interviews with some DHS/ITSD management. The belief was expressed that health plans were "gaming the system" to get past submission controls. During our discussions, some DHS/ITSD staff did not display an openness to revisit or work with the health plans to determine the potential reasons why health plans may feel gaming was the only alternative. DHS/ITSD management also expressed a belief that health plans receive sufficient information, instruction, and training. All health plans interviewed during this project felt the opposite.

MEDSTAT

MEDSTAT is the end point for the encounter data flow for Medi-Cal and the source for the majority of consolidated reporting and decision support analysis on the services and costs of care for Medi-Cal beneficiaries. DHS contracted with MEDSTAT in 1997 for $34 million, covering a four-year period, to establish a comprehensive information system to include information from all Medi-Cal programs for managing capitated health plans and FFS care.[15] Key services included supporting DHS in rate setting and financial analysis, program management, utilization and trend analysis, and responding to information requests by the legislators. The project objectives include:

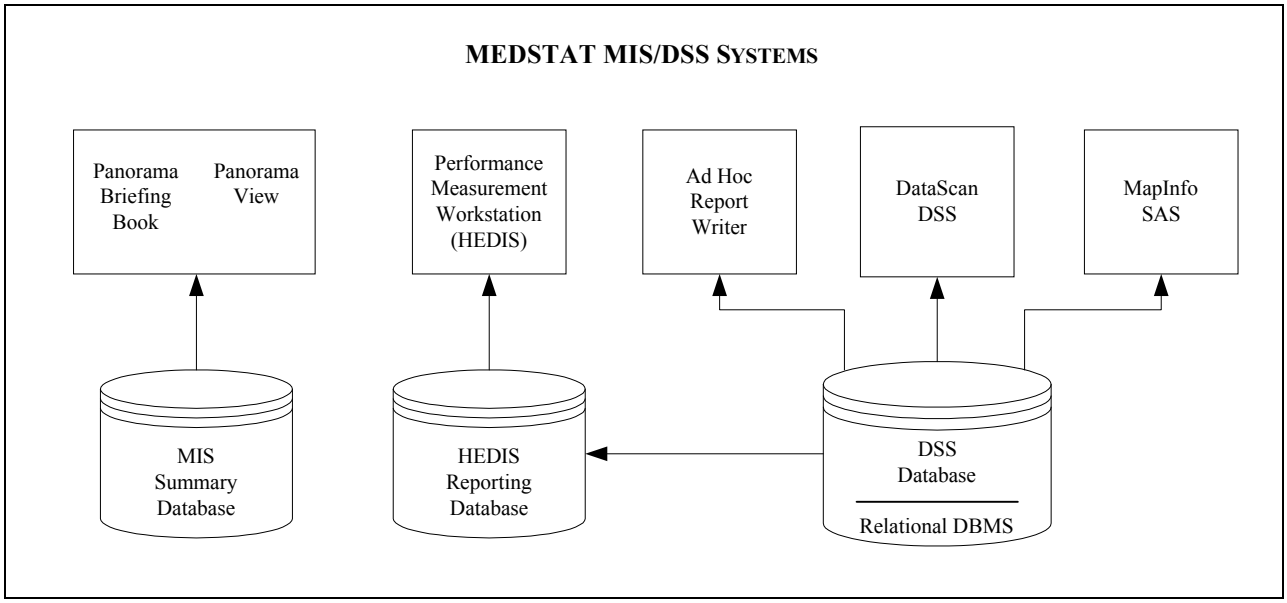
- Support the continued rate-setting activities of Medi-Cal.
- Respond to state and federal requests relating to services provided.
- Apply normative data to compare cost, utilization, and quality of care.
- Identify patterns of behavior across eligibles and providers to better understand utilization issues for design of cost containment initiatives.

The MEDSTAT databases were established in a phased approach with the final phase (Phase 5) completed in August 2000. Medi-Cal managed care plans were activated into phases based on their ability to submit data and their market share. Each new phase of the MEDSTAT MIS/DSS projects begins with a blank database. Tapes for the historical period, representing 30 months of "paid" data, are then rerun and loaded to the new MIS/DSS database. This does provide for some level of cleanup for old errors (e.g., if corrected data are resubmitted by plans as adjustments or if code tables causing errors have been updated at DHS for correct verification). This approach of complete reprocessing, however, ended with the full implementation of the MIS/DSS of Phase 5.

Information Systems and Controls

The Management Information System/Decision Support System (MIS/DSS) consists of a number of components for analysis and reporting. All systems pull from the same collection of data within the DSS database loaded from data feeds from DHS. Figure 4 shows the interactions among the components.

Figure 4: MEDSTAT MIS/DSS Data Flow



In general, the technology and processes used to consolidate, translate, format, and present data within MEDSTAT are well tested and accurate to DHS specifications. The technology and tools for decision support are quite excellent. The data update processes are well controlled, with checks and balances, formal data quality reports, and specific timelines for each step in the process. System and process limitations (e.g., use of the 35 File Format, no opportunity for data correction, restated eligibility histories, or paper error processes) exist throughout but are in accordance with DHS specifications.

Data Sources

All data used by MEDSTAT for analysis and reporting are from DHS. Receipt of data from DHS is limited to tape processing, primarily as a result of technology limitations within DHS (for electronic exchange and the sizes of the files, once combined by DHS). Claims data submissions include all services, including managed care encounters, Short-Doyle services, FFS claims, CHDP data, etc. MEDSTAT processing is in place to split the files back into the plan-specific and claim-type segments. Reporting of transmission problems and data errors from MEDSTAT to DHS is paper based.

Data Reporting

Although the majority of health plans speak in terms of MEDSTAT reporting as Panorama, the MEDSTAT MIS/DSS used for Medi-Cal reporting actually consists of a number of components. All systems pull from the same collection of data within the DSS database loaded from data feeds from DHS. The key system components include:

- ***Panorama View/Briefing Book*** (Panorama) designed to provide a strategic view of Medi-Cal Program performance. Panorama provides preformatted custom reports using HTML files with a Web page look and feel. The Panorama component uses a summarized view of the 30-month history DSS database information with the most current three months (from a date-of-service perspective) suppressed. Suppression of most current months was implemented to account for data lag before presenting trends and rates. The Panorama system has been released to users within DHS, the Department

of Finance, the Legislative Analyst's Office, and California Medical Assistance Commission (CMAC).

- ***Performance Measurement Workstation*** calculates annual HEDIS measures for managed care and fee-for-service plans based on administrative data only. Again, this component uses a subset of data from the 30-month history DSS database information.

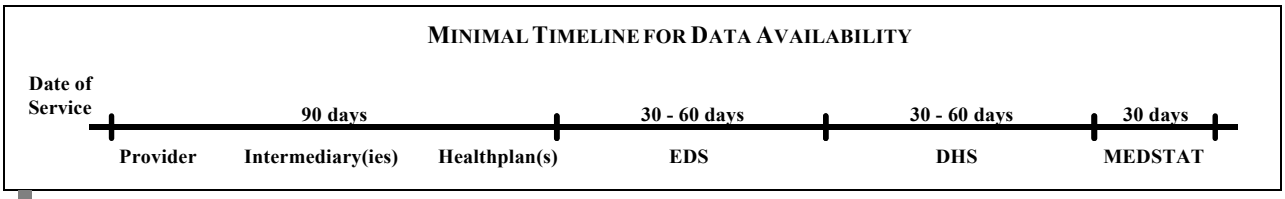
- ***DataScan*** supports provider profiling, clinical, trend, and quality-of-care reporting and extensive custom reporting based on case-adjusted information from the DSS database.

- ***Ad Hoc Report Writer*** provides customized reporting using DB2.

Data Currency/Timing

Using an assumption of non-COHS health plan compliance with the 90-day contractual DHS requirements for encounter submission (i.e., 90 days from date of service), EDS processing schedules, DHS turnaround and cutoff schedules, and MEDSTAT processing and load schedules, data available for analysis and reporting within MEDSTAT could be expected to show seven to eight months' delay from date of service.

Figure 5: Minimal Timeline for Data Availability



Using this timeline, data processed into the MEDSTAT databases in September 1999 and included in reporting for October 1, 1999, would be expected to be for dates of service in late January and February, 1999.

Under these timeline projections, COHS data would be expected to be one to two months more current, since COHS encounter data are not processed by EDS (e.g., September 1999 processing would be for dates of service in late March and early April, 1999).

But Outlook's research, with the assistance of MEDSTAT, reveals a considerably longer data delay. For GMC and Two-Plan model health plans, more than 65% of the encounters included in the September 1999 processing were for dates of service prior to late January 1999. For COHS, more than 50% were for dates of service prior to late March 1999. It is believed that much of the delay in 1999 was due to late submission by health plans, but processing delays within EDS and approval delays within DHS were also substantial prior to the fourth quarter of 1999. Processing schedules in November 1999 were significantly improved with only 12% of the dates of service in excess of an eight-month window for GMC and Two-Plan model health plans and only 7% in excess of six months for COHS.

Data Limitations

MEDSTAT, as the last link in the information chain, clearly is impacted by the limitations, erroneous translations and coding, and poor processes and controls along the data flow course. Therefore, the data within the MEDSTAT databases, through no fault of MEDSTAT, are lacking in volume and accuracy. MEDSTAT is able to use the majority of data that it does receive and is able to augment

data with more industry-standard values (e.g., MEDSTAT tags MediSpan values to prescription drug claims, ambulatory procedure groupings based on procedure codes, etc.) and supporting data (e.g., MEDSTAT adds ethnicity to claims data based on eligibility data, tags the zip code correct for the date of services, etc.). But a number of issues further limit the data within the MEDSTAT systems, including those below.

Non-Timely Data - The substantial time lag in the data discussed above precludes more current reporting. MEDSTAT commented, "Although managed care reimbursement arrangements may exacerbate this problem, reporting lag in health care data are not a limitation exclusive to the MEDSTAT MIS/DSS."

Missing or Hidden Data - Some data conditions (e.g., invalid service dates, invalid Medi-Cal ID, invalid CLIA number) result in dropped data. During our review, the rate of data dropped appeared to average between 10% and 14%. Other errors in data (e.g., invalid provider numbers, invalid service codes, etc.) result in suppressed or hidden data. These erroneous codes, reported to DHS on Unexpected Value Reports, are tagged with corresponding "invalid code" values. Although the records are still stored and included in line counts, the invalid code values prevent the service lines from being included in specific reporting and studies (e.g., line items submitted with an invalid zip code would not appear in geographic-based reporting, services submitted with invalid plan codes would not appear nor be reported with the other data from the plan originally sending the data to EDS/DHS, etc.).

As discussed earlier, no mechanism within the MEDSTAT system or processes within DHS provide for future record-level corrections for these errors. While code table updates can be made by DHS to add an "unexpected value" as a valid code, the new code applies only to future file processing. Records flagged as invalid and "hidden" from processing to date remain inaccurate.

Each new phase of the MEDSTAT MIS/DSS projects begins with a blank database. Tapes for the historical period representing 30 months are then rerun and loaded into the new MIS/DSS database. This does provide for some level of cleanup for old errors (e.g., if corrected data are resubmitted by plans as adjustments or if code tables causing errors have been updated at DHS for correct verification). This approach of complete reprocessing, however, ended with full implementation of the MIS/DSS system for Phase 5. Data dropped due to error in the reload for Phase 5 were approximately 12% of the total 572.5 million records. Information on data hidden due to unexpected values was not available.

MEDSTAT stated that the majority of dropped data was due to the date of data being outside the 30-month window of the database and only a small number of claim, encounter, and eligibility records is excluded due to the drop conditions.

Duplicate Data - Under the terms of the MEDSTAT MIS/DSS contract with DHS, duplicate claims checking as well as many transactional edits are *assumed* completed prior to the data arriving at MEDSTAT. As other reports associated with this assessment show, this is not an accurate assumption. Duplicate data checking is especially weak throughout the encounter data flow. Since many health plans resubmitted 1998 and 1999 data due to unclear communication on acceptances and a desire to improve compliance scores, a significant number of duplicate records within the MEDSTAT databases can be expected when all loads for records processed for this period are complete.

Partial Data History - The contract between MEDSTAT and DHS requires accumulation of data for 30 months only (based on processing date rather than service date). It was explained that this

"30-month window" approach was based on attempts to reduce hardware requirements and a premise that 30 months of data would provide a two-year historical perspective. Because of the data currency issues for managed care plans, however, this premise is inaccurate and, in many cases, less than one year of data would be available for specific plans by using this approach.

HEDIS reporting that, for some measures, relies on a three-year history of services will be partially accommodated by archiving for use by MEDSTAT's HEDIS reporting database. Although data are rolled from the DSS database after 30 processing months, they are being archived for future HEDIS reporting. This, however, does not make the data available to the other systems and tools used to view and analyze MEDSTAT's Medi-Cal data or help plans trying to validate MEDSTAT data against the data they have compiled for state HEDIS reporting.

Restated Eligibility

Eligibility to MEDSTAT is an extract of members active for the current processing month plus changes to membership in the three prior months. MEDSTAT retains eligibility data for members for periods previous to this (loaded initially with a full history for all members), but each month the last four months of eligibility stored is overlaid. Claims received during monthly loads are "tagged" with data from MEDSTAT's eligibility files. If eligibility has been retroactively changed since the date of service on the claim, the claim tag may be inconsistent with data on the claim. If the member is not eligible on the MEDSTAT database for the date of service (i.e., no eligibility record for the month of service), the claim is tagged with "invalid codes" for designated fields and hidden in related reporting. In summary, eligibility-specific fields within the claims records are determined based on updated, overlaid eligibility data versus the eligibility as it was reflected on DHS systems on the date of service.

Skewed Eligibility to Service Matching

MEDSTAT maintains all needed date fields within their database for claims/encounter monitoring, analysis, and reporting. The Panorama system reflects standard per member per month (PMPM) reporting based on date of service to accurately reflect reporting used by the health plans. DHS, however, relies heavily on its own designated "processing date" within the MEDSTAT database to summarize and report encounter and claims data and uses its monthly processing counts for eligibility in calculating a PMPM comparison reports especially in data submission compliance review. While this may be appropriate for fee-for-service claim data received in a timelier manner, it misrepresents true PMPM submission reporting (matching members to months of service) used for managed health care.

As an example, an August processing date denotes all claims/encounters processed by DHS in late July and August regardless of the dates of service for these claims/encounters. Detailed analysis during our assessment showed that actual dates of service within August processing were spread over the prior 12-month-plus period with very few encounters representing August dates of service. Reporting of PMPM data submission using August 1999 enrollment counts compared to claim/encounter data submitted for dates of service across a 14- to 15-month period grouped as "August processing dates" grossly skews submission rates and provides no meaningful count that can be used by the plans for submission balancing. This can be a significant source of misunderstanding by data analysis and reporting users.

CHDP Data Classification

As a result of DHS processes and approaches prior to data transmission to MEDSTAT, CHDP data within MEDSTAT are considered all data classified as such by DHS. But health plans also are submitting CHDP data as encounters. If health plan CHDP data are flagged as such (i.e., C designated as the program code), DHS strips out the data before forwarding them on to MEDSTAT. But a

number of health plans in the past, and potentially several currently, are not flagging the CHDP data submitted with encounter data. This results in two sets of data errors:

- ***Duplicate Data*** - DHS data classified as "CHDP" is data that is keyed from PM-160 forms sent by providers to EDS. Providers, in compliance with a number of health plan contracts, also are sending the PM-160 data to health plans to be included in quality reviews, HEDIS reporting, and encounter submission. CHDP data, in these cases, will be double-reported within the system but not within the CHDP reporting totals.
- ***Missing Data*** - A number of providers are forwarding CHDP PM-160 data only to health plans rather than to DHS. For the health plans flagging their CHDP encounters, these CHDP data will be missing. For the health plans not flagging CHDP encounters, the data will be included within MEDSTAT but misclassified as standard medical encounters.

Communication and Understanding

As would be expected based on the contract between MEDSTAT and DHS, MEDSTAT's databases and decision support views have been created from a DHS versus a health plan perspective. The data available within Panorama are summarized to include all services within a health plan's county area and all beneficiaries regardless of aid code. MEDSTAT stated that from the end users' perspective (DHS, Department of Mental Health, Department of Finance, Legislative Analyst's Office, and the legislative committee staff) "this ability to report on all services, including carve-outs, is one of the most valuable facets of the MIS/DSS." This may be appropriate for COHS with responsibility for all services and aid codes. From a non-COHS health plan perspective, however, the combination of the various data makes reconciliation and accountability for the accuracy of the data impossible, as it does not support visibility to health plan data specific to a health plan's scope of service and aid code responsibility for GMC and Two-Plan models.

> **Silo Perspective -** Throughout every segment of the eligibility and encounter data reporting chain, a tremendous source of confusion results from each participant's limited view. Each entity understands the data only so far as they are processed within its own walls and has little, if any, knowledge or understanding of the needs and uses for the data by others. MEDSTAT suffers from this same "silo" perspective. MEDSTAT personnel involved with the MIS/DSS project have little knowledge as to the sources of data prior to receipt by DHS nor the processes performed to compile, translate, and augment the data, by either DHS or any preceding organizations. As a result, these data are loaded into MEDSTAT databases and presented in a manner that may lead viewers to believe they are far more complete and accurate than they are. Major *incorrect* conclusions can be drawn. Without a reasonably in-depth understanding of the participants, processes, and problems touching the data prior to MEDSTAT receiving it, MEDSTAT cannot make accurate projections as to completion and accuracy rates to lend better understanding to the users of the data.

Until a reconciliation of data within MEDSTAT is made with health plans, health plans will continue to challenge the accuracy of the data, which could lead to a lack of confidence in the databases and reluctance to release reports from MEDSTAT data.

Summary of Encounter Data Findings

Encounter and claim reporting under Medi-Cal managed care is, by far, more complex than reporting under the traditional FFS model. There are more entities involved in data management, such as contractors, intermediaries, and administrators, and there is no longer the same financial incentive to record and report services. Key issues are discussed below.

Identification of Beneficiaries and Providers Are Not Standardized Throughout the System

- No unique identification number exists for beneficiaries throughout the system (e.g., DHS uses a unique CIN, but health plans have not uniformly adopted the CIN as their Medi-Cal identifier data not matched with a CIN at DHS are not forwarded to MEDSTAT).
- Similarly, there is no standard identification system for providers. Health plans currently use Medi-Cal identification numbers, state license numbers, tax identification numbers, and health plan-specific codes. Cross-referencing tables and matching systems require translations, thus increasing potential for data errors.
- There is no standard or automated method for handling retroactive eligibility. Ineligibility is the most common reason cited by plans for encounter data denials.

Coding, Formatting, and Submission Procedures Are Not Standardized

- Service and diagnosis code tables are not updated in a timely and consistent manner throughout all levels of the system. Data are lost due to erroneous denials (based on invalid or new codes) and data submissions are delayed.
- Providers must submit encounter data to each health plan using different processes and unique formats. This leads to submission errors, lost data, and delayed data.
- Submission procedures, as well as data collection and verification requirements, are significantly different for COHS plans versus other plan models. Electronic submission of data is not available to COHS plans and therefore data are at increased risk for error and loss.
- DHS data format requirements differ from industry-standard electronic claims acceptance and transmission formats in software systems used by the health plans. Either the provider or plan must reformat data to DHS format(s) (differing formats for COHS and non-COHS plans). Data are lost due to the more limited DHS format(s) and unresolved translation errors.
- Monitoring by health plans of data is limited to the submission of data. There is no standard encounter volume benchmark for Medi-Cal managed care members. Few plans are measuring the volume and quality of data received by providers.
- A few errors, due to nonstandardized coding and formats, can cause a "batch" or group of encounters submitted together to be rejected by DHS or EDS. Health plans are not able to submit only the corrected records. Rejected encounters are lost. Additionally, data submission is often delayed to resolve any possible error or bad records or is never submitted.
- There is not one submission format for health plans with more than one model type (GMC, Two-Plan). Plans with more than one model type must conduct manual intervention to separate files. This results in time delays, errors, and lost data.
- There is neither a formal process at EDS to monitor timely receipt of data or volume of data, nor to track files that are rejected and subsequently resubmitted. Nor is it possible to reconcile data sent by health plans and data processed at EDS. This results in errors and lost data.
- The processes for monitoring and editing submissions by EDS and DHS are not adequate. Relational editing is not performed. This increases the likelihood of errors or inaccurate data.
- Errors in data submissions meeting current acceptable levels of error thresholds (1% and 5%) are not stripped. In addition, the current thresholds present opportunities for gaming the system. This increases the volume of erroneous data.
- There is no standard procedure at DHS for editing data submitted from COHS plans. This does not match with editing processes performed for non-COHS plans. This results in data that are not comparable.
- There are no reconciliation processes for any model type. There is no way to know which portions of data submitted by plans has passed through to DHS and MEDSTAT systems.

Systems Are Not Sufficiently Automated

- DHS and EDS systems rely heavily on nightly batch processing. CHDP data submission is a manual process for most providers due to DHS PM-160 form requirements. Significant data, particularly important in quality measurement or HEDIS, are lost due to confusion about submission of paper forms and coding and handling of CHDP encounter data.
- Providers do not make appropriate use of existing technology for data collection and reporting. Billing systems that are not up-to-date may not be able to report service detail if billing occurs at a capitated or global rate. Data not captured at this level are lost entirely.
- Few of the health plans are fully automated for collecting, editing, monitoring, and transmitting eligibility and encounter data. Levels of connectivity and sophistication vary widely.
- Plans with automated systems may also use "workaround" techniques in processing encounter data, particularly for pharmacy, vision, and lab vendors. This may result in poorly edited and validated data.
- No historical encounter database/file is maintained by EDS in the CA-MMIS, preventing a process of checking for duplicate files outside of a single submission. This may result in a significant number of duplicate encounters.

Key Players Lack Expertise and an Understanding of Encounter Data

- Individual providers do not understand the relevance or importance of encounter data. As a result, there is little or no buy-in from most providers. Some providers are also unaware of or confused by contractual requirements for data submission to health plans. This problem may be exacerbated when IPAs or intermediaries are involved. In addition, plans do not have effective provider profiling or comparative reporting systems to share with providers that would encourage encounter reporting.
- Health plan IS staff lacks in-depth understanding of health care data, plan operations, and DHS Medi-Cal reporting requirements, particularly in the more newly developed Local Initiatives.
- Some DHS staff does not have appropriate expertise in managed care. Many processes and contracts were developed with limited experience with and understanding of managed care. For example, managed care encounter processing was not part of the EDS contract and was added indirectly through a fairly general DHS SDN.
- DHS staff does not have an adequate understanding of the entire data flow. DHS is the ultimate recipient of data and is the entity dictating formats, schedules, and specifications for submission, processing, storing, and reporting. Their role is critical to the functioning of the complex flows and processes. To date, adequate attention has not been paid within DHS to gaining needed expertise.

DHS Does Not Provide Adequate Feedback and Communication

- Health plans do not understand the criteria for plans given a "test" status or "production" status category for data submission or the meanings of the different classifications. DHS has not provided a policy or clarification in this area.
- Notification letters of changes to codes, policies, or procedures regarding encounter data are not sent to non-COHS plans. There is confusion between DHS and EDS regarding holding non-COHS plans in compliance with such changes.
- Health plans are not aware of the processing steps performed by EDS and/or DHS.

- There are differences of opinion in turnaround times on submissions to EDS and DHS. Health plans reported four- to six-month delays in receiving notification of data errors and acceptance. EDS and DHS report they are meeting one-month turnaround cycles.
- Written questions from health plans to DHS management are not answered or are given limited verbal or e-mail responses with no formal sign-off. Inconsistent and insufficient information leaves health plans and contractors with a lack of clarity to proceed with changes or improvements.

All Participants Have a Limited View of the Process

- Providers do not understand the connection between reporting of data and other activities such as the number of chart reviews.
- Departments within health plans, such as IS versus clinical staff, do not share information or an understanding of one another's impact on data.
- The staff interviewed at EDS does not have an adequate understanding of what occurs, particularly with editing, at DHS and MEDSTAT. This is particularly problematic as health plans interpret EDS's responses more broadly.
- DHS staff has little understanding of activities and responsibilities of other DHS staff outside of their own unit or department.
- MEDSTAT does not have an adequate understanding of the sources of data prior to DHS or the processes and parties involved. As a result, MEDSTAT's projections as to the completion and accuracy of data may not be correct.

III. MENTAL HEALTH CARVE-OUTS

Outlook conducted on-site assessments of three managed care mental health carve-outs. The three plans demonstrated many common features and strengths and some areas for improvement. All three mental health plans currently use the same system as their core system for processing eligibility, maintaining client, provider, and claim/encounter data and for reporting services to the state. One plan captures additional FFS claim data and authorization information in a separate software system. The complications of collection and integration of data between the two systems represented significant challenges for that plan.

Information Systems and Controls

The development of the core system used by these plans represents a long-standing collaborative development between the system software vendor(s) and many of the counties in California. Currently, as many as 33 counties use this core system. The software has been available and in use for community mental health since the 1980s. It predates the phased-in implementation of the mental health managed care carve-out program, and has been modified and adapted in cross-county collaborations. The system was developed and designed to address community mental heath needs and is focused on addressing specific state data collection, billing, and reporting requirements.

One county is currently in an implementation phase for a new core software system that will replace the old system. The new system has been developed for community mental health systems and offers PC and Internet functionality.

The capture of eligibility, claim, and encounter data and the processes to generate bills to the state, based on the evidence of services provided by each mental health plan, proves to be a powerful incentive for each plan to ensure collection, processing, and reporting the encounter service information.

Eligibility

All three plans use similar processes to capture the state MEDS eligibility data. The eligibility processing flow among plans was very similar and represented a well-established, adaptive process for capture and maintenance of eligibility information.

- Capture of the monthly eligibility information is by the state bulletin board. File information provided to each county contains the full Medi-Cal population for the county. Each plan runs programs to identify possible matches of the Medi-Cal population with its registered clients, and creates insurance policy/eligibility records. Retroactive eligibility records are automatically created for up to twelve months.
- Full matches and partial matches are identified. Partial matches of clients are written to an exception report that is used to research and resolve by plan staff using their registration data and

the MEDS database information. All three plans maintain their own demographic information gained from their registration information.

- Variations in practice regarding the load of the MEDS eligibility were limited, primarily in how effectively and timely staff were in being able to research and identify partial matches. The manual process is inherently less reliable than automated process. Specific staffing resources and capabilities come into play in assuring that the process is effective and well performed.
- One interviewed plan performs a weekly synchronization of eligibility data between its core system and an FFS database. Each database captures client information, assigns a unique identifier, and requires careful mapping, flawless translations, and perfect execution to ensure a successful synchronization. The synchronization represents a potential for data to be lost or scrambled.

Appendix N provides a generic schematic of the eligibility data flow through a mental health plan.

Claims/Encounter Data Flows and Processes

FFS claims processing was not a common practice among the mental health plans. One mental health plan reported a very small number of claims, estimated at two each month. Claims are processed using a Microsoft Excel spreadsheet and the data are entered manually in the plan's system. Another plan processes a relatively low volume of claims in its system. The volume was estimated at fewer than 50,000 per year.

Claims

Claims processing, transfer, and translation of claims data from the FFS database into the plan's core system for billing the state represents a challenging process.

- The paper HCFA 1500 claims are prescreened for completeness and data validity. The system will not permit incomplete claims to be data entered. The pre-screening process has evolved into a careful tracking and monitoring system maintained by claims staff in a Microsoft Access database. The plan enforces specific timeline requirements for resubmission of claims. The plan monitors resubmission of returned claims.
- The careful tracking and monitoring of the returned claims, while a process requiring manual detection, and manual data entry into a separate database, represents a best practice under the circumstances. This practice will ensure that claims are captured.
- Paid processed claims are transferred monthly from the database to the core system for the state billing process. This process requires that the client, eligibility, and provider data are in sync between the two systems and requires a translation of the claim data for loading into the core system. The conversion program converts the CPT codes to the Short-Doyle Medi-Cal coding and converts the units of services into the minutes of measurement required for state billing. This process was reported as requiring significant work to achieve successful mapping of the data and to ensure that all systems are synchronized.

Encounters

The capture of direct service data in the core system database represents the largest volume of service reporting captured by all three plans. Services are documented on paper forms and data are entered in terminals at the provider sites or through the health plan.

- All three plans enforce significant policies and procedures requiring timely and accurate entry of services to ensure maximum billings each month. Schedules for cutoff of services, requirements that all services for the month be data entered before the cutoff, and generation of routine monitoring reports on service volume, service patterns, and service report lags are used by the plans to monitor reporting.
- The plans' core system edits the manual data entry process with online editing. Encounters with problems are researched and corrections are made in the service report to affect a successful data entry. When services are data entered, the core system offers the plan the option to set a five-day delay before the final posting of the service. This delay period allows staff to make changes in the data, as required. Modifications may be made in the data after the five-day delay, but it is a more difficult adjustment process.
- Routine audit reports are generated for review by staff to ensure accurate and complete entry of the service data. One county reported that in addition to the routine auditing and reporting that monitors complete and accurate billing from each site, they routinely conduct chart audits to compare the encounter reporting and the documented services.
- The generation of the state bill is a significant monthly business function and is performed using the paid claim data and service report data. All state billing is generated from the core system. The billing process requires programs to be executed that capture services and clinical information about eligible clients in the required format specified by the state. Three types of state bill files can be created:

    1. ***A "regular" or "real" claim file*** captures all services incurred within the current year. This is a monthly file and is generated on the prescribed state schedule for submission. The file is a standard mental health 1980 claim format. (Prior to generation of the regular file, a test file can be created for review by the plan. One interviewed mental health plan routinely runs the test file to preview the billing and correct errors prior to the generation of the state file.)

    2. ***A "supplemental" file*** captures the service information for services provided in the prior year. The same file format is required by the state.

    3. ***The "SSN" claim file*** captures any eligible services that have not been reported previously using the SSN of the client. It is typically generated by plans semi-annually and is intended as a sweep of the database to capture any possible services that may have been missed in the monthly billing processes.

- All billing files are submitted to the state Department of Mental Health (DMH) through the state bulletin board. The file(s) are passed from DMH to the DHS for payment of the bill. The plans are aware that DMH loads the file data in some manner but receive no file reports or error reports as a result of that process.
- The billing files processing information is obtained from DHS. DHS loads, edits, and processes the files. As a result of the processing, a paper error report is generated and a check and explanation of benefit (EOB) file is generated. The EOB contains paid, denied, and errored record information. The turnaround time for receipt of error reports, payments, and EOBs were reported as highly variable and can be as much as several months.
- The paper error report is received by the plans and corrections are performed on the paper document. When appropriate, corrections are data entered by staff into the core system. The paper corrections are returned to DHS for manual correction of data at DHS. Plans have up to 60 days to return the error report with corrections. Corrected data at DHS may result in a payment or

denial of payment for services. The result of the corrections may appear on an EOB several months later.

- The manual correction process between the mental health plans and DHS represents a major weakness in the system. The manual paper correction, the up-to-60-day time lag, and the manual correction at DHS create significant payment delays and possible data loss and scrambles.

Appendix O provides a generic schematic of encounter data flow through a mental health plan.

Summary of Mental Health Carve-Out Findings

In general, eligibility processing within the mental health plans is a well-established procedure with few issues reported. Encounter and claim reporting, on the other hand, is a much more challenging process requiring a high level of manual procedures to assure accurate billing to DHS. Two key issues are:

Manual Processes

- Partial matches on eligibility require manual processes to research and resolve discrepancies.
- Claims processing for FFS is a paper-intensive process requiring careful tracking and monitoring of returned claims to assure payment.

DHS Does Not Provide Timely Communication or Payment

- DHS does not provide sufficient notice to the plans when implementing new or modified policies and procedures and new requirements. Often changes in policies and procedures do not take into account the amount of system change that would be required for implementation and did not allow enough time for such changes.
- The plans feel that DHS does not present a collaborative process that considered the complexity of policies and procedures and the effect they had on plans, services, and systems.
- Variable and extremely long timelines occur between submission of bills and payments received from DHS. Payment delays create major problems for the plans.

IV. IMPACT OF HEALTH PLAN MODELS AND CHARACTERISTICS

At the start of this data mapping project, certain health plans and delivery system characteristics were targeted for focus as likely factors influencing data flow and the quality and quantity of data transferring through to state reporting systems. Characteristics that appear to have the greatest influence on the volumes and the quality of data reported are:

Plan Model

The plan model has significant influence on data flow and accuracy within state information systems. This results from the DHS perspective of COHS as fiscal intermediaries or HIOs while Two-Plan and GMC model health plans are not to be considered in this same category.

COHS plans interact directly with DHS for data receipt and submission. Under contract with DHS, they have stricter timelines and requirements for data delivery to DHS. Non-COHS plans, on the other hand, have 90 days from date of service to submit their encounter data.

The DHS systems and processes have minimal editing and controls for COHS data. EDS's interaction with COHS is typically as a vendor to the COHS, responsible for processing FFS claims for nonmanaged Medi-Cal business and other support services. COHS are limited by DHS technology to tape processing for data submission.

Alternatively, Two-Plan and GMC model health plans have continuous data interaction with EDS that acts as a data exchange gateway between DHS and health plans for most data. The CA-MMIS managed by EDS for data submission has far more stringent data edits and controls. DHS takes a secondary-review role for data acceptance. Non-COHS health plans are able to receive and submit data by electronic data interchange.

The data for COHS, Two-Plan, and GMC model health plans are merged and presented comparatively in the MIS/DSS databases and MEDSTAT decision support tools. But as a result of the two separate paths of the data, COHS data can be expected to be more timely but less accurate than data from the other health plans.

Payment Method

The method of reimbursement plays a significant role in the volume, accuracy, and timeliness of data with the overall managed care encounter data flow. Capitation removes the direct link between accurate data submission and reimbursement. With capitation, data submission has become a contract requirement rather than a means of payment and, as such, requires more innovative means of monitoring and incentivizing.

Under Medi-Cal managed care, the state capitates all health plans. This places all health plans on equal footing in terms of compliance incentives and motivation for data submission. But as one moves down the

contracting hierarchy to health plans and their arrangements with providers, intermediaries, and Plan Partners, contract reimbursement arrangements begin to differentiate. At the health plan level, FFS reimbursement contracts have a greater likelihood of yielding higher quality and more prompt data not only as a result of the payment incentive for fast, accurate submission of claim data but also because of system controls. Systems implemented to pay claims invariably have stricter edit and quality controls.

Many levels of capitation and subcapitation can be found throughout the delivery systems organized to provide services to Medi-Cal managed care members. Each layer of capitated contracts introduces more opportunity for lost data because of lost incentives and more dispersed monitoring of data submission. Heavy involvement in capitation increases the need for more stringent monitoring and validation of data. This stringency, however, is not the current norm in Medi-Cal managed care practice and the quantity, quality, and timeliness of data within state reporting systems reflect these shortcomings.

Contracting Model

The health plans' approach to contracting, whether direct or through other health plans (multi-delegated/Plan Partner) or intermediaries, also has a significant impact on the quality and timeliness of data. The more levels in the contracting chain, the greater the opportunities for variance in contractual terms for payment arrangements and encounter submission requirements. Typically, with each additional level involved in contracting, there is another entity wanting access to the data for analytical and compliance purposes and another set of systems and processes the data must pass through on the route to state reporting databases. Each set of systems and processes touching the data increases the delay in routing and expands the opportunity for data loss and/or conversion error.

Data Intermediary Involvement

Intermediaries generally add levels of processing to the data flow; their involvement both slows the movement of data toward state reporting systems and touches, converts, and/or validates it in ways that can impact data accuracy. Although a few outstanding IPAs with sophisticated systems and controls were reviewed in connection with this project, a large portion of the IPAs throughout California are quite limited in terms of automation. Electronic data exchange promoting prompt data submission is missing in most IPAs. Additionally, editing and validation used for claims processing is typically bypassed for encounter data. As a result, data are lost, both in terms of quality and quantity, as they pass through these less developed IPAs.

Network Relationships

The level of complexity within provider and health plan networks increases the opportunity for confusion and misdirected data. Providers contracting with multiple IPAs, which in turn contract with multiple Medi-Cal health plans, which in turn may have multi-delegated plan arrangements, result in complicated webs of data exchange. Since each participant in the complex network has unique sets of format, process, and compliance standards for data submission, the opportunity for data loss as a result of submission error and/or misdirection is significant.

Membership Size

The health plan membership level can have significant influence on data flow and quality from several angles:

- Low membership levels can impact revenue available to support required staffing, information systems, and tools to properly manage software. Information system capital investment is costly as are resources to provide quality data control processes and provider support to assure complete and accurate data is labor intensive. Smaller health plans, in general, were found to have less sophisticated system implementation and less data monitoring in place.
- Rapid membership expansion in membership has had a major, negative impact on the quality and throughput of data for a number of health plans. More limited systems selected due to initial revenue constraints have had to be patched and supplemented to meet far greater membership and associated claim/encounter volumes. Health plans' capabilities are now beginning to catch up with the system and process needs of rapid growth, but historical data for these health plans will remain lacking.

Geography

The differences in data submission compliance and quality from a regional perspective appear to not be a result of geographic area so much as a result of the degree of managed care sophistication of the providers in certain communities.

Providers, intermediaries, and health plans with larger portions of their patient/member populations covered under commercial and Medicare managed care products show substantially better performance not only in data compliance but also in accuracy monitors. Commercial buyers of managed care services have been very demanding in terms of data and reporting. Policy decisions for contract renewal are made based on analysis of data provided by insurers and their delivery systems. As a result, providers and intermediaries serving large commercial managed care populations are more savvy as to the connection between data and ongoing capitation and have already built much of the systems infrastructure and control processes to meet data reporting requirements.

Provider Panel Penetration

The greater the level of financial linkage between providers and health plans, either in terms of capitation dollars or FFS reimbursement for larger shared patient/member populations, the greater are the incentives for the providers to comply with data reporting requirements. Health plans with substantial member populations in a provider's panel wield greater influence and also typically devote greater attention to obtaining required data and passing them forward.

Level of Connectivity with Providers

Health plans that devote time and attention to their provider communities, assist providers with technical challenges of data exchange, and share reports that reflect the use and importance of submitted data see improved results in data submission rates and data quality. Several health plans have implemented programs to assist and educate providers and have seen significant improvement in compliance. A number of health plans and intermediaries are investing in software and technology (e.g., direct connection to health plans' systems) to assist provider communities with data exchange. These closer relationships appear to yield better and timelier data.

No one factor alone proved to be overriding in its influence on state data. Good and poor processes and controls were found throughout all plan models, contracting relationships, regions and health plan sizes. Based on the interviews and surveys conducted in conjunction with this data mapping project, the key characteristics that appear to have the greatest overall impact are the:

- Level of cooperation among the health plans and the parties in their delivery systems.
- Level of overall understanding regarding the importance of data both in terms of information availability to assist in assuring quality of care and in the potential use of the data by legislators and others to influence health care policy and practice.
- Technology in place to support editing, internal reporting, and electronic exchange.

No single health plan model or characteristic delivers better results in terms of data volumes and accuracy. Certain combinations of all of the features *could* provide a better opportunity for success, but these same combinations could yield poor results without effective leadership that emphasizes the critical urgency of quality, timely, and complete data, and supports the controls and systems necessary to achieve the best results.

Health plans with the following characteristics appear to be associated with timely and accurate data:

- Strong relations with the provider community based on heavy panel penetration encouraging regular, direct communication (more easily obtained through direct contracting and not achievable in communities with heavy IPA involvement).
- Significant investment in technology for electronic and Web communication with the provider community.
- Direct, fee-for-service-based contracts assuring financial incentives for submission and avoiding intermediaries (although an effective financial incentive, such as those obtained through special submission programs by some capitating health plans, may prove an effective alternative).
- A significantly large and stable membership base to support the health plan.
- A highly effective leader with strong ties to the provider community and a dedication to effective use of data for quality of care as well as compliance.
- A geographic managed care or Local Initiative model (not constrained by the electronic submission limitations for COHS plans).

V. BEST PRACTICES

During the course of on-site interviews, Outlook observed several "best practices" within some of the health plans and provider organizations.

Health Plans

- Benchmarks established for encounter submissions based on industry standards (e.g., Milliman and Robertson) with health plan management feedback to providers and/or Plan Partners
- Active outreach to the provider community to improve communications and understanding of the importance of timely and accurate data
- Editing/adjudication of encounter data (including duplicates)
- Cash incentives for data (fee-for-service or stipends/sanctions)
- Direct contracts reducing level of data handoffs and communication
- Acceptance of partial files (electronic return of errors only)
- EDI claims/encounter submission using industry-standard formats
- Use of EDS for PCP/plan information to providers
- Eligibility data verification and processing
- Sharing data with provider community
- Outreach efforts with county for eligibility process improvement
- Collaboration between health plan and provider to resolve data exchange problems
- CIN (vs. Medi-Cal ID) used internally with cross-reference for network

IPAs, MSOs, and Providers

- Pre-processing functions offer an opportunity to validate and correct erroneous data prior to populating the IPA's system. Pre-processing functions for encounter data submission offer tremendous flexibility for resubmission purposes (e.g., ability to extract records by claim number, provider number, or member number).
- Providers receive $1.00 for every encounter submitted to IPA. The encounter must be received within 30 days on a HCFA 1500 form, and must run through the IPA's claims process cleanly. With the introduction of this unique incentive, the IPA has seen a 50% increase in its data encounter submissions.
- IPA provides systems, software, communications and support to larger provider offices. The design allows the participating providers to perform provider-office functions, as a seamless "extension" of the IPA's system (rather than a separate system), which allows direct access to the IPA's reference tables for membership, providers, code tables, etc. The system's provider-office functions support the workflow in the provider office without requiring extensive transition to being a "computerized" practice. IPA's system design allows the provider office to perform its work on its local computer, without being dependent on Internet or network connections, but also allows for frequent and seamless transfers of data with the IPA and software updates provided by the IPA. Software, hardware, and communications support is provided by the IPA.

- IPA has made significant progress in activating online access of provider offices to eligibility, authorization, and referrals, and looks forward to claim/encounter online access in the future. The provider views this as a major solution to time and error delays in eligibility processing and referral/authorization management.
- IPA's system stores member data corrections (such as address and phone number changes) that can be used by provider and IPA, in separate fields from the "official" data that is found on the state's data file (which is usually older and less accurate than what the provider or IPA has).

RECOMMENDATIONS

The implications for Medi-Cal of an MIS/DSS that contains inaccurate, incomplete, and delayed data are considerable. There are significant opportunities for making timely improvements in data flow and quality. The environment may be particularly ripe for change as California implements data transmission, standardization, and privacy provisions required by the Health Insurance Portability and Accountability Act (HIPAA) of 1996. Each party in the system—providers, intermediaries, health plans, mental health plans, DHS, and its vendors—can gain from better use of information systems and technology, increased standardization of processes, and education on systemwide needs and uses of eligibility and encounter data.

The improvements offering the greatest impacts, however, will require changes in government policy and procedures, systemwide cooperation and change, and strong leadership to facilitate change. These may be difficult to implement but will have far-reaching results in overall health care savings, improved quality of care to Medi-Cal members, and sound data on which to base health policy and investment decisions. Without improvements in eligibility and encounter data, other goals for the Medi-Cal program may not be met and certainly will not be measured accurately. Recommendations for improvements include:

Department of Health Services

1. Develop and implement standard processes and procedures for all managed care health plans, regardless of model. This should include:
    a. Standard formats for encounter data submission
    b. Common editing and error reporting processes
    c. Standard health plan communication processes

2. With other industry participants, develop Medi-Cal service volume benchmarks by type of service on which to base submission compliance monitors.

3. Align CHDP service reporting with other medical service reporting systems and processes, including all electronic submission capabilities. PM-160 data must be recoded to conform to industry-standard code sets.

4. Either lead in establishing or conform to industry efforts to standardize identification and coding. These efforts must include:
    a. Standardized methods for unique beneficiary/member identification
    b. Access to translation tables to assist health plans and others to convert to standardized identification

5. Develop automated controls and processes with the counties to lessen the likelihood of erroneous unique identification assignments across systems.
    a. Standardized methods for unique provider identification, regardless of Medi-Cal status
    b. Standardized specialty and level of care codes/designations

6. With counties and other industry participants, develop better, more-open processes for correcting member demographic data in a timely manner and communicating corrections to all necessary parties.

7. Obtain and effectively use better technology and systems for data collection and editing. Requirements for needed features should be clearly defined in the new RFP being developed by DHS. Technology and systems should include:
   a. Support for industry-standard electronic data interchange (EDI) protocols and health care standard formats (e.g., NSF, ANSI X12)
   b. Effective industry-standard claims edits with flexible automated ability for pend, deny, and accept decisions. This must include duplicate claims checking.
   c. Claim/encounter level versus batch level rejections with tracking
   d. Automated reporting of submissions, record counts, and errors by type and by submitter
   e. Use of standard industry codes with flexible mapping capabilities for converting data from older code sets. This must include conversion capabilities for identification numbers (e.g., members, providers).

8. Work with industry participants to enrich POS and eligibility tools to include current and complete data needed to determine Medi-Cal managed care eligibility among all levels of the delivery system.

9. Establish timely and effective submission monitoring, controls, and error reporting with health plans. DHS should publish monthly submission compliance reports to senior executives within each health plan.

10. Undertake responsibility for encounter data reconciliation with health plans currently within MIS/DSS databases to establish confidence levels in "reasonable representation" of data for all health plans.

11. Broaden the knowledge base of their staff and management involved with managed care eligibility, encounter processing, and quality review to further understanding of all related processes within DHS.

12. Create methods for more open communication with industry participants and become more sharing in detail related to system setup and control. Improved communication should include:
   a. Policies and procedures available through Web technology or online bulletin boards
   b. Effective, appropriately staffed customer service processes for responding to questions and clarification on issues
   c. Performance measures and monitoring for responses to questions and clarifications

13. Improve the timeliness of payments to the mental health plans.

Health Plans

14. Cooperatively work to create:
   a. Standard processes for provider and intermediary data exchange in line with commercial FFS claims submission formats and processes.
   b. Communication tools and processes for educating providers on the importance and use of encounter data in measuring provider performance and determining health care policy.

15. Individually:
    a. Improve understanding within their own organization on the importance and use of encounter data.
    b. Improve information systems and processes to assess/edit encounter data using the same standards as FFS claims.
    c. Implement/expand electronic data exchange capabilities to accept and transmit, using industry-standard protocols and standard health care formats.
    d. Implement/improve processes for monitoring compliance to encounter submission.
    e. Develop effective processes for assessing intermediary and provider capabilities to support encounter submission requirements for consideration in contracting and negotiation.
    f. Provide tools and support to providers for sharing and exchanging eligibility and other required data.
    g. Improve communication with providers, working directly with them to overcome submission problems.
    h. Convert systems and processes to support standardized identification and coding.
    i. Set benchmarks using Milliman & Robertson (M&R) or other national measures as a base (75% M&R is a common measure for office visits to test submission completeness). Establish formal, monthly feedback reports to Plan Partners and/or provider network leadership and hold meetings to discuss the impact of complete, accurate data on overall HEDIS scores and internal monitoring of quality.
    j. Process encounter data using the same editing and verification criteria as the claims data. If this does not prove to be feasible, separate editing processes, including EDI communication of encounter data, should be developed or obtained through an outsource vendor to assure accuracy of encounter data for internal quality and management reporting as well as state submission.
    k. Provide positive incentives for data rather than rely on negative sanctions. Reward for good data that meet accuracy and timeliness standards. Ideally, the positive financial incentive would be for meeting projected benchmarks that not only promote data submission but also report services to level of care utilization measures.
    l. Reduce the number of layers involved in the data exchange paths through more direct contracting for the delivery systems or take a leadership role in improving the processes, controls, and systems involved in collecting and transferring data through the various levels of the involved organizations (e.g., Plan Partners, IPAs, MSOs, data exchange vendors, providers, etc.). This would include providing technical expertise to assist these organizations with system issue that preclude easy submission and providing operational assistance to help them with control processes within their organizations.
    m. Develop methods for partial file acceptance to assure the accuracy of their data and increase the scores and measures reported by MEDSTAT on health plans. Error levels above the state's percentage limits will, in most cases, be rejected at the EDS/DHS level and thus will not be included in the MEDSTAT database for reporting. These will count as submission errors impacting the organizations' accuracy metrics.
    n. Move toward electronic claims and encounter submission. With HIPAA more, and eventually all, organizations will be moving to standard formats. The more health plans can work with Plan Partners, IPAs, TPAs, providers, etc., to use ANSI X12 formats for data interchange, the more complete data they will receive and the better positioned they will be for HIPAA compliance.
    o. Address methods for maintaining more-current provider affiliation data. Some health plans with multi-delegated arrangements have less current data on provider affiliations and PCP changes for incorporation with EDS's eligibility systems for providers.

p. Implement pre-processing information systems rather that totally overlaying eligibility data to bypass bad addresses and demographics present in DHS eligibility data. The plans could thus gain a better understanding of changes and retroactivity each month to help gauge capitation adjustments and also avoid the significant workarounds currently in place for demographic (e.g., address, phone, name spelling) date of death and insurance data errors.

q. Increase understanding of quality of care by more in-depth HEDIS measurement by Plan Partners and by benchmarking IPAs and providers below the Plan Partner level using M&R or other industry standard utilization measures for preventive and ongoing care.

r. Gain a full understanding of the eligibility and system issues impacting county departments of social services, especially with respect to unique member numbering and communication processes with the state. A concerted effort between the county, the health plans, and the state is necessary to improve the timeliness and accuracy of eligibility data.

s. Take an active role in helping to correct the data problems at the Plan Partner level and below. Many providers are extremely confused about data submission requirements and a large percentage is highly manual or limited in processing ability. Dedicated, hands-on education and technical assistance will be necessary to assure appropriate data submissions.

t. Use CIN as the Medi-Cal identifier. Plans could maintain a unique ID per member if they plan product offerings in the future outside of the Medi-Cal market, but a CIN should be the matching criterion for Medi-Cal eligibility processing.

Providers and Intermediaries

16. Invest in technology to capture data and make use of Web and Internet tools for data sharing.
17. Improve communication with health plans and intermediaries to resolve problems with understanding and data exchange.

Mental Health Carve-Outs

18. Work to reduce manual processes to assure accuracy in their eligibility and encounter data flows.

NOTES

[1] Medi-Cal Policy Institute, County Data
[2] In certain counties, DHS contracts with two commercial plans when a Local Initiative has not yet been developed.
[3] Encounter data are detailed information related to health care services delivered by providers of the health plan to its members.
[4] The California HealthCare Foundation (CHCF) provided a grant in 1997 to establish the Medi-Cal Policy Institute (MCPI) to provide concise data and analysis to Medi-Cal policymakers and care providers.
[5] Attachment C provides a more detailed description of the sampling attributes.
[6] Representatives from DHS included Medi-Cal Managed Care Division (MCMCD) and its Data Management Unit (DMU), the Medi-Cal Eligibility Branch (MEB), the Information Technology Services Division (ITSD), and the Management Information Services/Decision Support Services Project (MIS/DSS).
[7] After originally agreeing to participate, one health plan declined to participate late in the project and a willing substitute plan could not be located.
[8] County Social Service Offices and Maximus representatives were included in both on-site and telephone interviews.
[9] The cutoff date can vary by a day or two. DHS transfers data to MEDSTAT on the 25th of each month unless the date falls on a weekend. In such a case the cutoff date may be adjusted for the weekend.
[10] See Attachment D, Glossary of Terms, for a description of these EDS eligibility tools.
[11] For purposes of this report, "health plans" includes all levels of managed care organizations (MCOs) contracted directly with the state or with other health plans that are contracted with the state for managing services, administration, and reporting for Medi-Cal members. "Health plans" include all plans regardless of model (i.e., COHS, GMC, and Two-Plan).
[12] For purposes of this report, "provider" includes all physicians, clinics, hospitals, and like facilities, and vendors providing direct care to Medi-Cal managed care members whether through subcontract or direct contract relationships with health plans.
[13] For purposes of this report, "intermediary" includes contracting and administration entities (e.g., IPAs, MSOs, multi-delegated health plans/Plan Partners, etc.) through which managed care relationships, payments, and data exchange with health plans are handled. This segment also includes processing centers and other vendors (e.g., billing companies, information services, outsource firms, etc.) that collect and process encounter and/or eligibility data for providers.
[14] Per letter to the Bureau of State Audits from DHS dated July 1999.
[15] Outlook was advised by DHS that the total spending for the MIS/DSS is more than $44 million including costs of state administration of the project.

ATTACHMENT A:
MEDI-CAL HEALTH PLAN BASIC INFORMATION

NAME	MODEL	COUNTIES COVERED	ENROLLMENT	DATE	SOURCE
Commercial Plans					
1 Health Net	Two Plan	Los Angeles	349,361	Jul-98	A
	Two-Plan	Contra Costa	-	Jan-99	B
	Two Plan	Tulare	N/A	Jul-98	A
	Two Plan	Fresno	19,356	Jul-98	A
	GMC	Sacramento	25,404	Jan-99	B
	GMC	San Diego	4,467	Jan-99	B
			398,588		
2 BC California Care Health Plan and BC California	Two Plan	Alameda	28,162	Jan-99	B
	Two Plan	Contra Costa	6,046	Jan-99	B
	Two Plan	Fresno	101,453	Jul-98	A
	Two Plan	Kern	26,779	Jul-98	A
	Two Plan	San Francisco	14,255	Jul-98	A
	Two Plan	Santa Clara	30,357	Jul-98	A
	GMC	Sacramento	47,066	Jan-99	B
	GMC	San Diego	1,759	Jan-99	B
			255,877		
3 Omni HealthCare	Two Plan	San Joaquin	13,382	Jul-98	A
	Two Plan	Stanislaus	22,842	Jul-98	A
	GMC	Sacramento	26,890	Jan-99	B
	PHP	Yolo	69	Jan-99	B
			63,183		
4 Molina Medical Centers	Two Plan	Riverside	8,282	Jul-98	A
	GMC	Sacramento	**ceased 7/98**		
	Two Plan	San Bernardino	18,354	Jul-98	A
			26,636		
5 Community Health Group	GMC	San Diego	**64,254**	Jan-99	B
6 Kaiser Foundation Health Plan	GMC	San Diego	8,664	Jan-99	B
	GMC	Sacramento	19,256	Jan-99	B
			27,920		
7 Maxicare	GMC	Sacramento	20,322	Jan-99	B
			20,322		
8 Western Health Advantage	GMC	Sacramento	15,885	Jan-99	B
	PHP	Yolo	92	Jan-99	B
			15,977		
9 Sharp Health Plan	GMC	San Diego	**35,843**	Jan-99	B

ATTACHMENT A:
MEDI-CAL HEALTH PLAN BASIC INFORMATION

NAME	MODEL	COUNTIES COVERED	ENROLLMENT	DATE	SOURCE
11 UCSD Health Care	GMC	San Diego	**7,651**	Jan-99	B
13 Universal Care	GMC	San Diego	**9,941**	Jan-99	B
Local Initiatives					
1 Alameda Alliance for Health		Alameda	73,371	Jul-98	A
2 Blue Cross of California		Stanislaus Tulare	24,486 N/A	Jul-98 Jul-98	A C
3 Contra Costa Health Plan		Contra Costa	41,858		B
4 Inland Empire Health Plan		Riverside San Bernardino	58,569 77,876	Jul-98 Jul-98	A A
5 Health Plan of San Joaquin		San Joaquin	56,958	Jul-98	A
6 Kern Family Health Care		Kern	54,608	Jul-98	A
7 L.A. Care		Los Angeles	605,948	Jul-98	A
8 Santa Clara Family Health Plan		Santa Clara	40,071	Jul-98	A
9 San Francisco Health Plan		San Francisco	21,398	Jul-98	A
County Organized Health System					
1 Partnership Health Plan of California		Napa Solano	8,621 42,532	Jul-98 Jul-98	A A
2 CalOPTIMA		Orange	207,751	Jul-98	A
3 Health Plan of San Mateo		San Mateo	39,833	Jul-98	A
4 Santa Barbara Regional Health Authority		Santa Barbara	35,893	Jul-98	A
5 Central Coast Alliance for Health		Santa Cruz	20,386	Jul-98	A

Sources:
A: Monthly Medi-Cal Eligibility File, July 1998
B: DHS Two Plan Model Report, January 28, 1999
C: Medi-Cal Policy Institute County Data Book, July 1999

ATTACHMENT B:
PLAN/PROVIDER ON-SITE ASSESSMENTS &
HEALTH PLAN/PROVIDER/INTERMEDIARY SURVEY PARTICIPANTS

PLAN/PROVIDER ON-SITE ASSESSMENTS

NO.	HEALTH PLANS	TYPE
1	Alameda Alliance for Health (AAH)	Local Initiative
2	Blue Cross of California (BCC)	Commercial Plan
3	CalOPTIMA (CAL)	County Organized Health System
4	Community Health Group (CHG)	Commercial Plan
5	Health Plan of San Joaquin (HPSJ)	Local Initiative
6	Inland Empire Health Plan (IEHP)	Local Initiative
7	L.A. Care Health Plan (LAC)	Local Initiative
8	Santa Barbara Regional Health Authority (SBRHA)	Commercial Plan

NO.	PROVIDERS/OTHER ORGANIZATIONS	TYPE
1	Brown & Toland PSO	Physician Service Organization/IPA
2	Children First IPA/CFMG	Physician Hospital Organization (PHO)
3	Alameda County Clinic - Eastmont	County Clinic
4	Diversified Data Designs	Vendor - Clearinghouse
5	L.A. County	Department of Social Services Office
6	Maximus	State Vendor
7	North East Medical Services	Community Clinic: Federally Qualified Healthcare Center
8	La Vida IPA	IPA
9	California Hospital Medical Center	Hospital
10	Pediatric and Family Clinic	Clinic: Pediatric and Adult Primary Care
11	Healthy San Diego	County Department of Social Services
12	Carlos Sanchez, M.D.	Sole Practitioner: Pediatrics
13	MedPOINT Management	Management Services Organization (MSO)
14	Santa Barbara Neighborhood Clinics	Community Clinic
15	Pediatric MG of Santa Maria	Clinic: Pediatrics
16	CHOC Health Alliance	MSO/IPA/Medical Group/Sole Practitioner/Specialist/Hospital
17	ARTA Western Medical Group	MSO/IPA
18	San Joaquin General Hospital	Network: PCP and Specialty Clinics with SJGH operating as a hospital
19	Cesar Pabustan, MD	Sole Practitioner
20	Kwabena Adubofour, MD	Sole Practitioner: Internal Medicine/Family Practice
21	David Choi, M.D.	Sole Practitioner: Obstetrics and Gynecology
22	Bharati Ghosh, M.D.	Sole Practitioner: Pediatrics
23	Elliot Weinstein, M.D.	Sole Practitioner: Pediatrics
24	UCI Medical Center	Hospital

ATTACHMENT B:
PLAN/PROVIDER ON-SITE ASSESSMENTS &
HEALTH PLAN/PROVIDER/INTERMEDIARY SURVEY PARTICIPANTS

NO.	OTHER ORGANIZATIONS	TYPE
1	EDS	State Vendor
2	Department of Health Services	State Agency
3	MEDSTAT	State Vendor
4	Mental Health Carve-out - San Fran County	Mental Healthplan
5	Mental Health Carve-out - Stanislaus County	Mental Healthplan
6	Mental Health Carve-out - Kern County	Mental Healthplan

HEALTH PLAN/PROVIDER/INTERMEDIARY SURVEY PARTICIPANTS

HEALTH PLAN NAME	TYPE OF HEALTH PLAN
Central Coast Alliance for Health	COHS
Contra Costa Health Plan	Local Initiative
Health Net	Commercial – Two-Plan, GMC
Health Plan of San Mateo	COHS
Kern Health Systems	Local Initiative
Molina Medical Centers	Two-Plan, Plan Partner - Health Net, GMC
Partnership Health Plan of California	COHS
San Francisco Health Plan	Local Initiative
Sharp Health Plan	GMC
UHP Healthcare	Plan Partner – CalOPTIMA & L.A. Care
Universal Care	Plan Partner - CalOPTIMA, GMC

PROVIDER/INTERMEDIARY NAME	TYPE OF PROVIDER
Abrahim, Dr. Refaat	Clinic
Aijian, Dr. Paul and Koonce, Dr. William	Physician Practice
Ali, Dr. Tareq A.	Physician Practice
Allen, Dr. Irving	Clinic
Arbor Medical Group	Clinic
Billigmeier, Dr. Steven L.	Clinic
Blanchard, Dr. J. P.	Solo Practice
Boutros, Dr. Ghassan	Physician Practice
Cap Management	MSO
Casabar, Dr. Ruben	Solo Practice
Central Coast Center for Womens Health	Clinic
Central Coast Eye Associates	Clinic
Centro Medico Latino-CV	Clinic

ATTACHMENT B:
PLAN/PROVIDER ON-SITE ASSESSMENTS &
HEALTH PLAN/PROVIDER/INTERMEDIARY SURVEY PARTICIPANTS

PROVIDER/INTERMEDIARY NAME	TYPE OF PROVIDER
Chambi, Dr. Richardo	Physician Practice
Channel Medical Center	Clinic
Chen, Dr. Henry (Hsiang-Shien)	Solo Practice
Childrens Hospital of Orange County (CHOC)	Hospital
Cotton, Dr. Samuel	Solo Practice
Curtis, Dr. Charles	Physician Practice
Daniel, Dr. Howard	Solo Practice
Davidson, Dr. David	Physician Practice
Diop, Dr. Abdoulaye	Solo Practice
East Los Angeles Doctors Hospital	Hospital
Edison Health Center	Clinic
Emergency Physicians of Orange County	Physician Practice
Family and Elder Care Medical Clinic	Clinic
Fu, Dr. Victor	Solo Practice
Garcia, Dr. Antonio	Solo Practice
Gill, Dr. Cadrin	Solo Practice
Gould, Dr. Murray	Solo Practice
Health Smart	MSO
Healtheon/WebMD	Vendor
Ho, Dr. Charles	Solo Practice
Hool, Dr. Armando	Solo Practice
Hunter, Dr. Lloyd	Physician Practice
Imperial Beach Clinic	Clinic
Jirasut, Dr. Dumrong	Solo Practice
Kaiser Permanente	Staff Model
Katiby, Dr. Naim	Physician Practice
Keulen, Dr. David	Solo Practice
Khmer Health Group	Physician Practice
Koh, Dr. Sandy	Physician Practice
Kumaratne, Dr. Mohan	Solo Practice
Linda Vista Health Care	Clinic
Lompoc District Hospital	Hospital
Mallorca, Dr. Florinda G.	Physician Practice
Marasigan, Dr. Rene I. And Mouttapa, Dr. Ange	Physician Practice
Marian Community Clinics	Clinic
Massen, Dr. Arkady	Solo Practice
Michael, Dr. Mahfouz	IPA

ATTACHMENT B:
PLAN/PROVIDER ON-SITE ASSESSMENTS &
HEALTH PLAN/PROVIDER/INTERMEDIARY SURVEY PARTICIPANTS

PROVIDER/INTERMEDIARY NAME	TYPE OF PROVIDER
Mid City Community Clinic	Clinic
Midcoast Imaging Medical Group	Physician Practice
Montgomery, Dr. Mark	Clinic
Moran Rowen and Dorsey	Physician Practice
Mthombeni, Dr. Jonathan	Solo Practice
Network Medical Management	MSO
Nugyen, Dr. Lieu	Solo Practice
Oliverio, Sr., Dr. O. Michael	Physician Practice
Operation Samahan	Clinic
Orange County Department of Social Services (OCDSS)	County DSS Office
Pediatric and Adolescent Comprehensive Care Medical Group	Clinic
Physicians Healthcare Group	Clinic
Physicians' Management Services	Billing Service
Prasad, Dr. Chandrika S.	Physician Practice
Recalde, Dr. Francisco	Solo Practice
Reddy, Dr. Raghunath	Solo Practice
Retino, Dr. Rosario	Solo Practice
Sethian, Dr. Nubar	Solo Practice
South Central Family Health Care Center	Clinic
St. Joseph's Medical Resources	MSO
Tanson, Dr. Gabriel K.	Solo Practice
Tribhuwan, Dr. Shashikala	Solo Practice
Williams, Dr. Bryant B.	Solo Practice
Williams, Dr. Lawrence	Solo Practice

ATTACHMENT C:
ATTRIBUTES FOR SAMPLING

- **Membership size**. Plans with large numbers of Medicaid recipients (and therefore encounter and eligibility volume) as well as smaller plans. Policy decisions must consider the smaller plan that serves only one county and/or is relatively new as a managed Medicaid plan. Both "large" and "small" plans were selected after reviewing the all-plan distribution of member panel size. A plan is classified as large if it has 100,000 or more Medi-Cal members or small if it has fewer than 100,000 recipients enrolled in 1999.

- **Geography**. Plans (and their contracted providers) represent both Northern and Southern California. While geography may not *directly* influence encounter data capture and workflow, conditions in certain medical communities may either support or negatively impact encounter data exchange.

- **Plan Model.** A reasonable mix of Medicaid managed care plan models, including Local Initiatives, COHS, and GMC. Of the 58 California counties, 26 counties have implemented managed care models and enrolled over 89% of all Medi-Cal recipients. The highest concentration (87%) are enrolled in one of three plan models:

COUNTIES	PLAN MODEL	% ALL MEDI-CAL RECIPIENTS
12	Two-Plan	67%
6	County Organized Health System	9%
2	Geographic Managed Care	11%
6	Other Managed Care Plan Types	3%
32	Medi-Cal Fee-for-Service	10%
58		**100%**

Based on significant experience and feedback from plans and providers, the following characteristics were selected to assure that a variation in encounter data capture and accuracy were represented within the sample:

- **Payment Method**. Compensation method directly impacts the availability of service documentation. Under capitation, there are no direct incentives for the physician to submit encounters because he/she has been prepaid for services and a bill is not required for reimbursement. Health plans that use both capitation, fee-for-service were included within the sample.

- **Contract Model**. The health plan's model for contracting with providers may affect encounter data exchange as IPA-based contracts typically result in the IPA or MSO acting as the data intermediary between the individual physician office and health plan. With direct contracts, practitioners are more likely to submit encounter information to and receive eligibility data from the health plan.

ATTACHMENT C:
ATTRIBUTES FOR SAMPLING

- **Administrative Services Model**. Health plans with different models of arranging for claims and encounter administration. Under delegation, the plan partner or provider organization assumes responsibility for processing encounter information and sending fully processed data to health plans. Under a non-delegated model, the plan retains encounter processing responsibility.

- **Level of Connectivity with Providers**. Health plans that have established electronic data exchange with their providers and those that rely on manual paper or tape exchanges. The hypothesis is that electronic interfaces promote more complete and current eligibility and encounter data exchange, although could introduce a host of technology issues.

- **Data Intermediary Involvement**. Data intermediaries between health plan and provider are a source of variation in encounter data capture and accuracy. A sample from clearinghouses and data entry organizations has been included.

- **Provider Panel Penetration**. Health plans that control significant proportions of provider panels are more likely to influence encounter submission behavior change and technology improvements among contracted provider organizations, as well as negotiate standards for formatting data submissions. Health plans with and without dominant provider practice penetration are a part of the sample.

ATTACHMENT D:
GLOSSARY OF TERMS

ACRONYM	DEFINITION
AEVS	Automated Eligibility Verification System used by providers to verify Medi-Cal eligibility
AFDC	Aid to Families with Dependent Children
Aid Code	A classification system used to assign beneficiaries to specific sub-categories of Medi-Cal eligibility
All Plan Letters	Informational from Contract Management
ANSI 837	American National Standards Institute – EDI standard
BAT	Basic Assessment Tool used for gathering information for HEDIS reporting
BENE ID	Beneficiary Identification Number same as BID
BIC	Benefits Identification Card for Medi-Cal Beneficiaries
BID	Beneficiary Identification Number
CA-MMIS	California Medicaid Management Information System
Carve-outs	mental health, dental, pharmacy
CBO	community-based organization
CDS	Case Data System
CERTS	Claims and Eligibility Real-Time System P.C. software used by providers to verify a beneficiary's Medi-Cal eligibility with EDS
CHCF	California HealthCare Foundation
CHDP	Child Health and Disability Prevention. A state program under Childrens' Medical Services branch of DHS.
CIN	Client Index Number is defined as 9NNNNNNNA. It always starts with a '(', has 7 numeric digits and ends with an alpha character of A, C through H, M, N, S through Y. These characters are invalid endings for CINs: B,I,J,K,L,O,P,Q,R, or Z. Note that CINs never end with a 'P' and therefore cannot be confused with Pseudo SSNs. CINs are cross-referenced to MEDS IDs in the MEDS system.
CLIA	Clinical Laboratory Improvement Act
CMAC	California Medical Assistance Commission
CMC	Computer Media Claims – EDS electronic claim system – uses HCFA 1500 and ANSI 837
CMS	Data submission format for mental health data
CMS Unit	Children Management Services of DHS
COC	case opening clerk
COHS	County Organized Health Systems – a model of Medi-Cal managed care
CPT	Common Procedure Terminology – procedure coding scheme
CRN	claims reference number
DDD	Diversified Data Designs – a data clearinghouse
DHS	Department of Health Services. State agency that administers Medi-Cal

ATTACHMENT D:
GLOSSARY OF TERMS

ACRONYM	DEFINITION
DMH	Department of Mental Health
DMU	Data Management Unit of Medi-Cal Managed Care Division of DHS
DOB	date of birth
DOS	date of service
DSS	Department of Social Services
DX	diagnosis
EDI	Electronic Data Interchange
EDS	Electronic Data Systems – Fiscal Intermediary for Medi-Cal
EDU	Encounter Data Unit at EDS
EOB	explanation of benefits
EOM	end of month
ETO	Eligibility Tape Out
EU	Encounter Unit
FAME	An abstract of DHS/MEDS for Medi-Cal data
FFS	fee-for-service
FI	fiscal intermediary
FTP	file transfer protocol
GMC	Geographic Managed Care
HCFA	U.S. Health Care Financing Administration
HCFA 1500	Claim form for professional services billing
HCO	Health Care Options
HCPCS	HCFA Common Procedure Coding System – procedure coding scheme
HEDIS	Health Plan Employer Data and Information Set
HIO	health insuring organizations
HIPAA	Health Insurance Portability and Accountability Act of 1996
HMO	health maintenance organization
HWDC	Health Welfare Data Center
IA	intent to assign
ICD9	diagnosis coding standard
ID	identification
ID (transaction)	intent to default
IP	inpatient
IPA	independent physician association

ATTACHMENT D:
GLOSSARY OF TERMS

ACRONYM	DEFINITION
IS	information system(s)
ISAWS	Interim Statewide Automated Welfare Systems – several counties use this system to check for eligibility
ISP	internet service provider
ITSD	DHS's Information Technology Services Division
IVR	interactive voice response
LEADER	L.A. County System which can be used to check eligibility
LI	Local Initiative – a public health plan with a state Medi-Cal contract under the Two-Plan model
LTC	long term care
M&R	Milliman & Robertson
Maximus	The DHS vendor that provides outreach and education to assist beneficiaries in choosing a health plan primary care provider.
MaxStar	The database maintained by Maximus of beneficiaries' health plan selection.
MBR SVCS	member services
MCMCD	Medi-Cal Managed Care Division of DHS
MCO	managed care organization
MCP	managed care plan
MCS	Medical Care Services of DHS
MEB	Medi-Cal Eligibility Branch of DHS
MEDS	Medi-Cal Eligibility Data System
MEDS35	format required for DHS database
MESH	Medi-Cal Extranet for State Healthcare
MFR	Medicaid Federal Reporting
MIS/DSS	Management Information System/Decision Support System
MMIS	Medicaid Management Information System
MOP	month of payment
MPCD	Medi-Cal Policy Division of DHS
MRMIB	Managed Risk Medical Insurance Board
MSO	management service organization
N/A	not applicable
NDC	national drug code
NDC	National Data Corporation
OIL	operating instruction letter – DHS information notice to EDS and COHS to implement a change in procedure

ATTACHMENT D:
GLOSSARY OF TERMS

ACRONYM	DEFINITION
OP	outpatient
Panorama	Panorama is the name often used to refer to the entire database designed and maintained by MEDSTAT
PBM	pharmacy benefit management
PCP	primary care physician
PHC	Physician/Hospital Consortium – Orange County CalOPTIMA
PM-160	CHDP confidential screening/billing report
PMF	provider master file (MEDSTAT Flows)
PMPM	per member per month
PMPY	per member per year
PNS	provider network system
Policy Letters	Clarify contract language; is legally enforceable; Contract Management Division issues contract amendment to plans
POS Network	Used by providers to verify a beneficiary's Medi-Cal eligibility with EDS.
PSD	Payment System Division of DHS
PSO	physician services organization
QC	quality control
QM	quality management
Rx	pharmacy
SAWS	Statewide Automated Welfare Eligibility System
SCI	Statewide Client Index – catabase maintains CIN for all state programs.
SDN	System Development Notice – Documentation for system change and associated cost used between DHS and EDS
SDX Tape	Eligibility data from Social Security Administration
Short Doyle	Legislative act related to Mental Health Services
SSA	Social Security Administration
SSI/SSP	State Supplemental Income/Supplemental Security Payment
TANF	Temporary Assistance for Needy Families
TPA	third party administrator
UB 92	claim form for institutional services
VPN	virtual private network
WIC	Women, Infant & Children
Worker Alert	Notification of an enrollment or eligibility data correction requirement

ATTACHMENT E:
DATA DICTIONARY LEGEND

ICON	NAME	DEFINITION
	Automated Phone	This symbol represents telephone access by a provider to EDSs automated voice mail system for eligibility verification.
	Connector	This symbol links a shape to another point in the flowchart without using a line. A letter or number in the circle links to the corresponding letter or number elsewhere in the chart. It is also used to connect multiple lines at one point.
	Database	This symbol represents a database.
	Direct Dial	This symbol represents software distributed by EDS to provider organizations for eligibility determination via direct dial access via the Internet.
	Document	This symbol represents an activity recorded in a document, such as a computer file or printed report.
	E-mail/FTP Submission	This symbol represents data submission via email or FTP.
	Paper Submission	This symbol represents a paper-based data submission.
	Process	This symbol represents any type of process or activity.
	Swipe Card Device	This symbol represents the Medi-Cal beneficiary ID card used by provider offices to determine a beneficiary's eligibility through EDS.
	Transaction	This symbol represents a transaction.
	Website	This symbol represents Web site access by a provider to EDS for eligibility verification.

MMW070 Edit/Error Fields

(1%, 5% And Critical 5%)

Section Three

3-0

04/14/98

3.1 Critical - Header/Format Errors

When a critical *Header Record* error or invalid *Format Code* causes an automatic rejection, the remaining records in the file are still edited for errors. Those errors, along with the Header Record or Format Code errors, will be printed on a MR-O-170, Encounter Data Weekly Reject Report. The entire submission fails even if all other records and fields are error-free.

Critical Header Error Fields	
Header Record	Is not present
Plan Code	Does not match a Plan Code in Encounter Data Table 0200
Record Count	Does not match the actual number of records in the file
Adjudication Status	Is not Paid (P), Denied (D) or Capitated (C) - *Medical Only*
Number Of Claims Lines	Not 00-22 (Inpatient) - *Medical Only*

(Figure 3.1.1)

Critical Format Code Error Field		
Field	**DE #**	**Edit**
Format Code	3	Anything other than D, H, L, M or P (it cannot be blank)

(Figure 3.1.2)

If any one of these data elements is invalid or missing, the whole file will be rejected, even if all of the other records in the file are error-free.

3.2 1% & 5% Errors (Medical Only)

If the 1% and 5% error thresholds in a file are reached/exceeded, the file is rejected. These thresholds are determined by calculating the cumulative percentage of 1% and 5% errors with the total number of records in a file. If the percentage of errors reach or exceed the set thresholds, the file will be rejected. (See Figures 3.2.1 and 3.2.2)

DHS made the determination as to what would be a 1% error and what would be a 5% error by identifying the data elements they felt to be *critical/non-critical*, and then assigning them to being either 1% or 5%. For example, DHS felt that the Adjustment Code (1%) was more critical than the Beneficiary ID (5%). As a result, a file cannot contain more than 1% of its records with invalid Adjustment Codes, or more than 5% of the records with invalid Beneficiary IDs. If these thresholds are exceeded, the whole file is rejected. However, if the errors do not exceed the thresholds, the file is passed (with the error'd records included) to the MMM0S0.

1% Error Fields (Medical Only)		
Field	**DE #**	**Edit**
Adjustment Code	5	Code is not '1' (void), '2' (corrected) or blank (not an adjustment)
Provider Type Code	17	Code not found on MMIS Table 0205, or EDU Table 0300
Beginning Date Of Service	19	Invalid date of service
Ending Data Of Service	20	Invalid date of service
Reimbursement Amount	31	Not numeric
Medicare Deductible Amount	33	Not numeric
Medicare Coinsurance Amount	34	Not numeric
LTC Accommodation Code	47	Invalid code; not on the MMIS Table 1243
Days Stay	48	Not numeric
Accommodation Ancillary Code	57	Invalid; not on the MMIS Tables 0240, 1301 or EDU Table 1000

(Figure 3.2.1)

5% Error Fields (Medical Only)		
Field	**DE #**	**Edit**
Beneficiary ID#	7	Medi-Cal beneficiary ID#, SSN# or CIN# is not eligible for services
Billed Amount	30	Not numeric
Procedure Code	39	Invalid; not found on the MR-F-174. Procedure Code Extract File
Outpatient/Medical Procedure Qty	41	Not numeric
NDC/UPC	43	Not found on RF-F-010, Formulary Master File, or is not '9999MZZ'

(Figure 3.2.2)

ATTACHMENT G:
EDITING CRITERIA ACROSS STATE SYSTEMS

PLAN MODEL	EDS-CA-MMIS	DHS*	MEDSTAT	
			DROPPED	HIDDEN**
GMC and Two Plan	If in excess of 1% of file contains: • Invalid adjustment code • Invalid provider type code • Invalid dates of service • Invalid LTC accommodation code • Invalid accommodation ancillary code • Non-numeric reimbursement amount • Non-numeric Medicare deductible amount • Non-numeric Medicare coinsurance amount • Non-numeric days stay If in excess of 5% of file contains: • Invalid ID (Medi-Cal beneficiary ID, SSN or CIN not of file as eligible for the **month** of service • Non-numeric billed amount • Invalid procedure code • Non-numeric procedure quantity • NDC or UPC drug code not on formulary master	• Program code = "C" (CHDP) • Denied service (Adjustment status = "D" • Invalid CIN number • No eligibility for the member in the 16 months of stored eligibility	• Invalid county code • Invalid CIN number • Invalid check date • Check date outside 30-month processing window • Missing or invalid service date • Service date future to 30-month processing window • Claim header with no detail	• Invalid AID code • Invalid healthplan code • Invalid specialty code • Invalid provider code • Invalid AID code status • Invalid ethnicity on the MEDS file • Invalid language on the MEDS file • Invalid county on the MEDS file • Invalid gender on the MEDS file
COHS	Not Applicable	• Invalid CIN number • No eligibility for the member in the 16 months of stored eligibility	• Invalid county code • Invalid CIN number • Invalid check date • Check date outside 30-month processing window • Missing or invalid service date • Service date future to 30-month processing window • Claim header with no detail	• Invalid AID code • Invalid healthplan code • Invalid specialty code • Invalid provider code • Invalid AID code status • Invalid ethnicity on the MEDS file • Invalid language on the MEDS file • Invalid county on the MEDS file • Invalid gender on the MEDS file

* No official confirmation of edits from DHS

** "Hidden" – records with erroneous data tagged with corresponding "invalid code" values p