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Attainable Benefits of the Medicaid Management Information System Are Not Being Realized. HRD-78-151; B-164031(3). September 26, 1978. 49 pp. + 2 appendices (4 pp.).

Report to Sen. Henry M. Jackson, Chairman, Senate Committee on Governmental Affairs: Permanent Subcommittee on Investigations; by Elmer B. Staats, Comptroller General.

Issue Area: Health Programs: Compliance With Financing Laws and Regulations (1207).
Contact: Human Resources Div.
Budget Function: Health: General Health Financing Assistance (555).
Organization Concerned: Department of Health, Education, and Welfare.
Congressional Relevance: Senate Committee on Governmental Affairs: Permanent Subcommittee on Investigations. Sen. Henry M. Jackson.
Authority: Medicare and Medicaid Anti-Fraud and Abuse Act (P.L. 95-142). Social Security Act, title XIX. P.L. 92-603. 42 C.F.R. 450. S. 1470 (95th Cong.). H.R. 7079 (95th Cong.). H. Rept. 92-231.

Medicaid management information systems are integrated computer processing operations used by the States to process and pay bills for health care services provided to medicaid recipients, store and retrieve service and payment data for use in monitoring and analyzing program activity, and generate management reports. A review of the medicaid management information systems in three States--Ohio, Michigan, and Washington--indicated that the States have not realized the full potential of their systems. Findings/Conclusions: Although approved by the Department of Health, Education, and Welfare (HEW), the systems do not meet requirements of the law, implementing regulations, or HEW's administrative requirements. Some systems are underdeveloped and/or underused, and as a result, neither the Federal Government nor the States are realizing all benefits expected. HEW lacks information on the cost of the systems and cannot effectively monitor or control administrative expenditures because of limitations in cost-reporting requirements. HEW has not required the States to develop or report the cost of operating the systems in detail. The systems' data base is often incompatible with the mechanized payment systems used by medicare carriers and hinders timely, accurate, and mechanized exchange of payment data. Recommendations: The Secretary of HEW should: develop written approval procedures for use by HEW personnel in approving State information systems; update the general systems design and the program regulation guide to reflect system experiences to date; assist the States in developing medically acceptable definitions of medical practice which correlate medical diagnosis,

procedure, age, and sex so that States can use the computer to check billings; clearly define the kinds of information systems' costs that HEW will reimburse at the 75% sharing level; and develop and implement a functional cost-reporting system for medicaid claims processing. The Congress should consider amending title XIX of the Social Security Act to require HEW to establish systems performance standards and to require that HEW periodically reevaluate approved systems to determine if they continue to meet Federal requirements. (HRS)

7775

REPORT BY THE

Comptroller General

OF THE UNITED STATES

Attainable Benefits Of The Medicaid Management Information System Are Not Being Realized

States that use Medicaid management information systems should be able to administer their Medicaid program more efficiently, effectively, and economically. The Department of Health, Education, and Welfare (HEW) pays States 90 percent of the cost to develop such systems and 75 percent of the cost to operate them, instead of the usual 50 percent cost sharing. HEW has determined that 17 States have systems which meet legislative and regulatory requirements. GAO reviewed three of them.

Neither the States nor the Federal Government are realizing all benefits expected. The three systems GAO reviewed did not meet all requirements of the law and regulations, and often were incompatible with Medicare information systems. Information is lacking to adequately monitor systems' costs.

HEW should improve its system design and approval process, test and monitor systems in operation, as well as those being planned to assure they meet legislative and HEW requirements, and exercise better control over systems' costs.

The Congress should consider amending the law to require that States meet performance standards to receive extra funding.

HRD 78 151

SEPTEMBER 26, 1978

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-164031(3)

The Honorable Henry M. Jackson
Chairman, Permanent Subcommittee
on Investigations
Committee on Governmental Affairs
United States Senate

Dear Mr. Chairman:

This report is in response to the Permanent Subcomittee on Investigation's request that we (1) review the Department of Health, Education, and Welfare's (HEW's) approval of State Medicaid Management Information Systems and (2) assess how well the States are operating their systems. Specifically, the Subcommittee asked us to evaluate the utilization of the systems, their effectiveness, and their costs.

This report contains a discussion of the information systems in three States--Ohio, Michigan, and Washington. It discusses (1) the adequacy of HEW's review of State systems for approval under the requirements of Federal law and regulation, (2) the adequacy of HEW's information on the operational costs of State systems, (3) the extent to which States are realizing the benefits expected from approved systems, and (4) the compatibility of Medicaid and Medicare information systems.

As requested by the Subcommittee, we have not obtained written comments from the States or HEW on this report, but we have discussed the report with them.

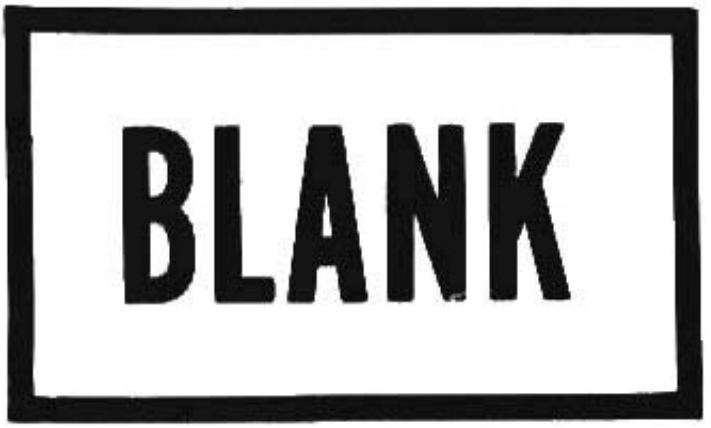
We are recommending that the Congress consider amending title XIX of the Social Security Act to require that HEW establish systems performance standards and that approved systems be periodically reevaluated by HEW to determine if they continue to meet standards. In addition, this report contains numerous recommendations to the Secretary, HEW, directed at improving overall program administration.

As requested by your office, we are making no further distribution of this report at this time. As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

Accordingly, we will be contacting your office in the near future to arrange for at least limited release of the report so that the requirements of section 236 can be set in motion.

Sincerely yours,

Comptroller General
of the United States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COMPTROLLER GENERAL'S REPORT TO THE PERMANENT SUBCOMMITTEE ON INVESTIGATIONS, SENATE COMMITTEE ON GOVERNMENTAL AFFAIRS

ATTAINABLE BENEFITS OF THE MEDICAID MANAGEMENT INFORMATION SYSTEM ARE NOT BEING REALIZED

D I G E S T

The Department of Health, Education, and Welfare has approved Medicaid Management Information Systems in Michigan, Ohio, and Washington which GAO reviewed and found

--underdeveloped,

--underused, and

--not complying with all requirements of the law.

The systems, integrated computer processing operations, are used by States to (1) process and pay bills for health care services given Medicaid recipients, (2) store and retrieve service and payment data for use in monitoring and analyzing program activity, and (3) generate management reports.

By law, HEW pays 90 percent of a State's cost to develop a system and, after approval, 75 percent of the operating cost. Since developing and operating systems involve large Federal expenditures--many through contractual arrangements--there is concern about whether these expenditures were justified and reasonable.

The full potential of the system is not being realized either by the States or the Federal Government. None of the three State systems GAO reviewed fully complied with requirements of legislation or implementing regulations, even though HEW approved them as being operational. This noncompliance stemmed from weaknesses in HEW's system approval process and system design criteria (see p. 6). A fundamental change in Federal administrative cost sharing is needed. States should be reimbursed for operating a system that meets certain performance standards of efficiency and effectiveness--not for merely having an approved system.

Increased administrative funding should be provided by HEW only for meeting performance standards which have a significant program impact, such as cutting cost or increasing service availability. (See p. 16.)

The Secretary, HEW, should:

--Develop written approval procedures for use by HEW personnel in approving State information systems, including specific criteria for testing the systems in operation to assure that minimum standards are met.

--Update the General Systems Design and the program regulation guide to reflect system experiences to date, with emphasis on greater uniformity and use of proven processing techniques in systems developed by the States.

--Assist the States in developing medically acceptable definitions of medical practice which correlate medical diagnosis, procedure, age, and/or sex so that States can use the computer to check billings for consistency among these factors.

RECOMMENDATION TO THE CONGRESS

To enable HEW to better manage and control the information systems, the Congress should consider amending title XIX of the Social Security Act to require HEW to establish systems performance standards and to require that HEW periodically reevaluate approved systems to determine if they continue to meet Federal requirements. (See p. 18.)

HEW LACKS INFORMATION ON SYSTEMS COST

Lack of a clear definition of the kinds of information systems' costs for which States can claim 75 percent sharing has caused confusion among both HEW and State personnel and has hampered HEW's ability to effectively monitor and control costs (see p. 20).

Likewise, HEW cannot effectively monitor or control Medicaid administrative expenditures because of limitations in cost-reporting requirements (see p. 22).

HEW has not required States to develop or report the cost of operating information systems in detail. Without this requirement HEW cannot adequately compare costs among States. Further, costly or inefficient administrative procedures are obscured in the current method of cost reporting, and the reasonableness of such procedures goes unquestioned. (See p. 26.)

In contrast, HEW requires its Medicare claims processing agents to report costs on a functional basis and has been able to identify agents whose costs have been out of line.

The Secretary, HEW, should:

--Clearly define the kinds of information systems' costs that HEW will reimburse at the 75-percent sharing level.

--Develop and implement a functional cost-reporting system for Medicaid claims processing, similar to that used under Medicare, to facilitate cost comparisons among the States.

EFFECTIVENESS OF ONE SUBSYSTEM NEEDS IMPROVEMENT

The Surveillance and Utilization Review subsystem and Management and Administrative Reporting subsystem are integral parts of the information systems. The review subsystem has two basic purposes: to provide information that assesses the level and quality of care provided to Medicaid recipients and that reveals and facilitates the investigation of suspected instances of fraud or abuse by Medicaid providers and recipients. The reporting subsystem should provide necessary information to support sound decisionmaking.

In its present state of development, the review subsystem accomplishes neither of

its purposes effectively. It is underdeveloped, ineffective in identifying potential misutilization, and of unproven value. States generally are not reviewing the quality of care provided Medicaid recipients as required, and the subsystem is not providing the data needed to help States do so. Overall, States are still using a trial and error approach to producing and/or using the subsystem and its reports. (See p. 31.)

States generally used outputs from the management reporting subsystem in the manner intended and were satisfied with the results. (See p. 42.)

GAO believes the review subsystem needs further development and a thorough evaluation to assure that its approach is sound and effective. An available alternative--Utah's Physician Ambulatory Care Evaluation program--is addressing the quality of care issue, as well as limiting potential overuse of services. (See p. 40.)

HEW should:

--Undertake a demonstration project to determine whether the review subsystem can be further developed and refined so that it is more effective.

--Continue development and evaluation of alternative utilization review systems, such as the Utah program.

INCOMPATIBILITY OF MEDICAID AND MEDICARE INFORMATION SYSTEMS

The Medicaid information systems' data base is often incompatible with the mechanized payment systems used by Medicare carriers--thus hindering timely, accurate, and mechanized exchange of payment data. Because many people have both Medicare and Medicaid coverage, the lack of compatibility causes Medicaid administrative ineffectiveness and reduces control over the payment of Medicaid claims. To qualify for 75 percent funding,

the systems are required by law to be compatible. (See p. 45.)

GAO recommends that HEW:

--Develop a uniform identification numbering system for providers and recipients and adopt standard coding systems for medical procedures, diagnoses, drugs, and medical supplies for use by the Medicare and Medicaid programs.

--Provide liaison between States and Medicare carriers to resolve conflicts which preclude free exchange of payment data.

--Enforce the statutory requirement that Medicaid and Medicare information systems be compatible.

As requested by the Subcommittee, GAO has not obtained written comments from the States or HEW on this report, but has discussed the report with them.

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Contents

ABBREVIATIONS

EDSF	Electronic Data Systems Federal Corporation
EOMB	explanation of Medicaid benefits
GAO	General Accounting Office
HCFA	Health Care Financing Administration
HEW	Department of Health, Education, and Welfare
MAR	Management and Administrative Reporting subsystem
MMIS	Medicaid Management Information System
PACE	Physician Ambulatory Care Evaluation Program
SRS	Social and Rehabilitation Service Administration
S/UR	Surveillance and Utilization Review subsystem

CHAPTER 1

INTRODUCTION

The Permanent Subcommittee on Investigations, Senate Committee on Governmental Affairs, held hearings in November 1976 relating to contracting by States for the development, installation, and operation of a Medicaid Management Information System (MMIS). An MMIS is an automated system used to pay claims for services rendered to Medicaid recipients and to provide information necessary to manage and control a State's Medicaid program. During the hearings, testimony was received which indicated that many problems existed in the MMIS program. The Acting Chairman of the Subcommittee requested that we review selected aspects of the Department of Health, Education, and Welfare's (HEW's) and the States' involvement in and use of MMIS. The review concentrated on determining

--whether HEW was adequately reviewing State systems for compliance with Federal law and regulation before approving them;

--how adequate HEW controls over State MMIS operational costs are;

--if approved MMISs are compatible with Medicare claims processing systems;

--whether the claims processing portion of approved MMISs met Federal requirements;

--how much States use the management reporting and utilization control portions of their MMISs; and

--MMIS costs by type of function performed, for the States reviewed.

As of June 1, 1978, HEW had approved 17 State systems as MMISs. (See app. I.) At the Subcommittee's request, we reviewed HEW-approved systems in Ohio, Michigan, and Washington. Both Ohio and Michigan operate their information systems themselves, while Washington has contracted with Electronic Data Systems Federal Corporation (EDSF) for operating its system. The scope of review is presented in chapter 6.

BACKGROUND

The Medicaid program is authorized by title XIX of the Social Security Act, enacted in 1965. It is a Federal/State program which makes payments to medical service providers

on behalf of eligible patients. The Federal Government provides regulatory guides and financial support. Each State tailors its program to its needs, choosing from many options related to eligibility and services.

Combined Federal/State Medicaid expenditures were $1.7 billion in fiscal year 1966. Fiscal year 1976 expenditures were $14.7 billion for providing an estimated 24 million people with Medicaid services. Throughout the program's life, the Congress, HEW, and States have all expressed continuing concern about the rapidly rising Medicaid costs and program management inadequacies. MMIS was developed as one of the Federal Government's responses to those concerns.

MMIS' history

The initiative for developing MMIS began in June 1970 when an HEW task force recommended that HEW (1) develop a model system to help States administer the Medicaid program and (2) make available 90 percent Federal funding for installing such systems.

Following the task force recommendations, HEW initiated in-house studies leading to developing a conceptual system design for an MMIS. Consultec, Incorporated was awarded a contract in March 1971 to finalize this design. The General Systems Design for Medicaid information systems was published in August 1971 and a prototype installation was begun September 1971 in Ohio.

MMIS was conceived as a computerized information and claims processing system tailored to support efficient Medicaid program management. States were to translate this general conceptual design into a mechanized system which fulfilled the basic system objectives and met individual State needs.

The conceptual design includes six subsystems: recipient, provider, claims processing, reference file, surveillance and utilization review, and management and administrative reporting. The first four subsystems work together with the overall objective of processing and paying each eligible provider for every valid claim. The other two subsystems consolidate and organize data from which reports, necessary for managing and controlling the Medicaid program, are prepared.

Federal sharing in State MMIS costs--at rates greater than the normal 50-percent administrative cost-sharing rate--was authorized by section 235 of Public Law 92-603, enacted

October 1972. This law provided Federal funding for 90 percent of the design, development, and installation cost of systems which HEW determines are likely to provide more efficient, effective, and economical administration of the State Medicaid program. The law did not define the terms "efficient, effective, and economical."

The systems must also be compatible with the claims processing and information retrieval systems used in administering Medicare. Federal funding for 75 percent of system operating costs was also authorized by section 235 if the system was approved by HEW and if it included a provision for written notice identifying the Medicaid services for which a provider has been paid to each eligible individual receiving services. The written notice requirement was modified by Public Law 95-142 (Oct. 25, 1977) to require that only a sample of recipients had to be notified.

HEW issued regulations in May 1974 (42 CFR 450.90) which contained two additional requirements for 75 percent operational funding: (1) the complete system with all its component subsystems must be operating on a continuing basis during the period for which 75 percent sharing is claimed and (2) the system must produce both patient and provider profiles for utilization review and program management purposes. HEW issued administrative requirements in June 1974 which incorporated HEW's General Systems Design for MMIS as its standard for approving systems.

HEW's Social and Rehabilitation Service Administration (SRS) had the responsibility for administering Medicaid. In a March 1977 reorganization, SRS was abolished and HEW established the Health Care Financing Administration (HCFA) which was given administrative responsibility for Medicaid and Medicare. The reorganization eliminated SRS's previously centralized administration of data systems for Medicaid, Aid to Families with Dependent Children, and social services, and divided them among the Office of Human Development, the Social Security Administration, and HCFA.

PRIOR GAO REVIEWS OF THE MMIS PROGRAM

On October 25, 1974, we issued a report to Senator Robert Taft, Jr. (B-164031(3)), on how HEW was implementing section 235 of Public Law 92-603, and concluded that

--improved procedures were needed for paying States' costs for MMIS and

--SRS staffing was not adequate to review and evaluate States' requests for systems approval.

The MMIS was also discussed in a report to the Congress, "Developing State Automated Information Systems to Support Federal Assistance Programs: Problems and Opportunities," May 26, 1978 (FGMSD-78-31).

CHAPTER 2

IMPROVEMENTS NEEDED TO REALIZE FULL POTENTIAL OF INFORMATION SYSTEMS

The three States reviewed have not realized the full potential of their management information systems. Although approved by the Department of Health, Education, and Welfare, the information systems do not meet requirements of the law, implementing regulations, or HEW's administrative requirements. Some State information systems were underdeveloped and/or underused. As a result, neither the Federal Government nor the States are realizing all benefits expected from the Medicaid Management Information System.

According to the House Committee report on Public Law 92-603, 1/ the Federal Government's share of costs associated with an operating MMIS--75 rather than the usual 50 percent--was justified by overall program savings expected to result from using the information systems. However, HEW's process for approving State systems as eligible for 75 percent sharing only involves evaluating the documentation which describes the system. HEW does not test the system to verify that it operates as the documentation describes. This has resulted in States being approved for and reimbursed at the 75-percent level, even though the systems in operation failed to meet all requirements of the law and/or HEW regulations. Also, after approval, HEW does not periodically monitor State systems to see if they are operating properly.

HEW's General Systems Design is not specific enough to provide meaningful assistance to States to adequately design their systems. This lack of specificity also makes decisions pertaining to system approval more difficult for HEW personnel because of the wide variation permitted.

While HEW should correct these weaknesses, a more fundamental change is needed--namely, States should be reimbursed for performance, not for merely having an approved system. By doing this, reimbursement would be based on HEW periodically determining that the system is performing according to certain standards of efficiency, economy, and effectiveness. The Congress is presently considering legislation (S. 1470 and H.R. 7079) which would require States to meet performance standards or have the Federal share of

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1/H. Rept. 92-231.

Medicaid administrative costs reduced or terminated. Those States meeting all and exceeding some standards would have their percent of Federal funding increased. We believe that the performance standard concept is especially applicable to information systems where measurements of results should not be too difficult to develop.

INADEQUATE REVIEWS RESULT IN INFORMATION SYSTEMS BEING INAPPROPRIATELY APPROVED

HEW reviews State information systems to determine if they meet requirements of the law, HEW regulations, and the program guide which implements the regulations. If a State's system meets all of these requirements, HEW approves the system as an operational MMIS eligible for 75 percent Federal cost sharing. However, because of weaknesses in HEW's approval process, State systems have been approved which fail to meet one or more of the requirements.

HEW's approval process consists of reviewing the documentation which describes the State system. This documentation is compared to HEW's General Systems Design--a set of manuals containing general system documentation which incorporates the requirements of the law, the regulations, and the program regulation guide. However, HEW does not operationally test State systems during its review. Thus, no assurance that a system performs operationally as specified in the State's system documentation exists. Such testing--an actual demonstration that the system produces expected results when transactions which are predetermined to be correct, incorrect, or invalid are processed--is needed so that HEW, as well as the State, obtains optimal results from the system. Further, testing is important since the heavy reliance on conceptual capabilities, rather than functional demonstration, has resulted in HEW's approval of incomplete or underdeveloped systems.

Also, HEW requires States to perform computerized medical consistency checks, 1/ yet they were not given guidelines as to what is medically acceptable. The absence of national or regional definitions of what are acceptable relationships between age, sex, diagnosis, and treatment has hindered the development of adequate systems' checks--even though the

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1/Consistency checks are computer edits designed to compare the compatibility of medical procedures provided with diagnosis, age and sex, and the setting in which the procedure was provided.

systems are capable of performing them. Elementary systems' tests, such as those made during the review, would have alerted HEW to this problem and appropriate action could have been taken.

Besides the failure to operationally test systems, other weaknesses hamper HEW's system approval process. HEW has not developed official certification procedures to be followed by system reviewers. A set of such procedures would allow reviewers to consistently apply a certain group of criteria to various States' systems. Presently, reviewers only have a checklist to use in determining if systems meet all requirements. An attempt to develop system approval procedures was abandoned because, according to HEW officials, the States vary greatly in their systems' approaches.

One additional weakness in the approval process is that it is only done once. At a point in time, HEW reviews the system documentation and determines if the system should be approved. HEW does not monitor or periodically reevaluate the adequacy of an approved system. State Medicaid programs frequently change because of modifications to Federal and State laws and policies; therefore, changes to State information systems are often necessary. Also, as States gain operational experience with their systems, they often make changes. Since HEW has no continuing review function, it can neither be certain that a State's modifications to its system have properly implemented law or policy changes, nor can it tell whether required system components have been deleted. For example, when Michigan's system was certified by HEW, it contained about 100 edits. Over the years, the number of edits has increased to about 460. During this evolution, some original edits were expanded, some were split into several edits, and others were retained but were not used. However, HEW has not reevaluated the system to determine if it meets approval requirements.

MMIS approval process weaknesses have resulted in HEW approving systems which did not meet legislative or regulatory requirements that systems

--provide for prompt written notice to individuals furnished Medicaid services,

--be compatible with the claims processing and information retrieval systems used in the Medicare program,

--provide both patient and medical provider profiles for utilization review and program management purposes, and

--be fully operational.

Also, HEW has no assurance that the systems as approved, or as subsequently modified by the States, actually met MMIS requirements, when operating. Details regarding unmet requirements identified follow.

Notice not sent to Medicaid recipients

The notice of medical benefit payments--or an explanation of Medicaid benefits (EOMB)--is a listing sent to a recipient of all services that Medicaid has paid for that recipient during a specified period, usually 1 month. The notice is intended to check the validity of payment for claims made by providers. Recipients are asked to notify the State if the services paid for were not received.

Section 235 of Public Law 92-603 included a provision requiring that notices be sent promptly to all Medicaid eligibles for whom payments are made. Of the three States reviewed, only Washington met this requirement when its system was approved. The Medicare and Medicaid Anti-Fraud and Abuse Act (Public Law 95-142, Oct. 25, 1977) modified the EOMB requirement to require that only a sample of recipients had to be notified. Nevertheless, at the time HEW approved the Michigan and Ohio information systems as being operational, they did not meet the requirements of the then applicable law.

In the early stages of implementing the information systems, States developed the capability to produce EOMBs, but some resisted producing and mailing them as specifically required by the law. Their resistance was based on economics. States were required to produce and mail notices to each recipient receiving a service paid for by Medicaid. The cost to a State can be substantial. One State, California, would not comply with the requirement because it believed the cost would be greater than the benefits.

Ohio and Michigan eventually met the EOMB requirement, but only after the effective date of their systems' approval. Michigan complied shortly after receiving HEW's approval. However, Ohio did not begin mailing the notices to all recipients (about 600,000 per month) until January 1977, or 15 months after its system was approved as fully operational. At the time of the system approval review, Ohio had only recently begun mailing the notices, and only on a sample basis to about 6,000 recipients. Yet, HEW approved the system and awarded retroactive approval--to a date 6 months before any

notices were mailed. HEW could not provide a satisfactory explanation as to why Ohio's system was approved before EOMBs were issued.

Medicaid and Medicare systems are incompatible

Section 235 also requires that to be certified as operational Medicaid information systems have to be compatible with Medicare systems. Compatible systems are necessary to assure that the costs of services provided to persons covered by both programs (about 3 million persons) are paid by the proper program and that providers are not overpaid. The information systems for the two programs were incompatible in all three States; thus, HEW should not have approved these Medicaid systems. Implementing the compatibility requirement has been difficult because of inadequate cooperation between the two programs and fundamental differences between their data bases. Washington and Ohio have attempted to use Medicare data, with considerable difficulty. This is presented in more detail in chapter 5.

Patient and provider profiles not generated and components not fully operational

HEW regulations implementing section 235 specify that, in order to receive HEW approval as operational, a system (1) must produce patient and provider profiles for reviewing use of services and (2) must have all components operating continuously.

Meeting the first requirement enables the State to look at all services that a recipient received or all services that a provider has rendered over a specific time. These recipient and provider profiles are generally considered essential for utilization review of the necessity for and quality of services received and rendered.

Meeting the second requirement is supposed to enable HEW to determine that operating information systems are providing all expected benefits because the entire system is operating on all Medicaid claims submitted.

The Michigan information system is not producing any recipient profiles and, while the system does produce provider profiles, only a few are used in reviewing services. Further, neither the Michigan nor the Ohio systems met the continuous operation requirement when they were approved since neither initially produced an explanation of medical benefits. HEW approved Michigan's system on the condition that the State

would produce all required profiles. However, the State has not done so, and HEW did not check to ensure that the State met the condition before claiming 75 percent sharing.

In addition, none of the three States uses its information system to pay all Medicaid claims covered under the program. Washington excludes State-owned mental facilities; both Ohio and Michigan exclude nursing homes. Because States do not process some claims through their systems, the resulting claims history does not reflect some recipients' total medical payment history. Therefore, statistical data produced by the systems is incomplete.

Not all HEW administrative requirements for system approvals are met

HEW's program guide for the MMIS regulation outlines the capabilities that a system must have to be approved as operational. The guide states that HEW will use its General Systems Design as the standard for evaluating State systems for operational approval, and thereby for 75 percent Federal sharing. The General Systems Design includes extensive use of computer tests to validate provider billing data and to compare for reasonableness and consistency of data on the claim form with information already in the system's data base. Systems varied widely in the degree of compliance with the General Systems Design and in the use made of computer tests.

To assure that claims are complete, correct, and valid before payment, HEW's General Systems Design requires that the claims processing subsystem--the heart of the information system--perform basic checks on each claim to determine that

--all required data is present,

--dates are valid and reasonable,

--computations are correct,

--codes for such items as prescription drugs and medical procedures performed are valid,

numerical items are within the proper range (e.g., provider numbers having the correct number of digits), and

--the provider and recipient were eligible at the time of service.

Our tests of the Michigan and Ohio systems 1/ showed, with minor exceptions, that these basic checks were performed correctly.

HEW's General Systems Design also requires that State systems make several sophisticated cross-referencing checks that go beyond those of the "normal" claims validation checks listed previously. For example, such cross-reference checks are intended to make certain that

--the medical procedure provided is consistent with the diagnosis, the recipient's age and sex, and the place of service;

--the diagnosis is consistent with the recipient's age and sex; and

--certain combinations of medical procedures are identified for manual review before payment.

Our tests in Michigan and Ohio showed that these types of checks were being performed on a very limited basis, although they are within the States' systems' capabilities. For example, we processed test invoices which, if submitted by actual providers, would have resulted in payment for such questionable services as providing birth control pills to males, providing fluoride treatments to infants, treating men for menstrual problems, and performing major heart surgery in the recipient's home. Michigan officials said these cross-referencing checks were not always made primarily because of (1) a lack of defined criteria regarding what is reasonable and consistent among the procedure, diagnosis, age, and sex variables and (2) computer programing difficulties.

STATES NOT USING SYSTEMS TO ENFORCE POLICY

Another aspect of claims validation for which States are not always using their computer systems is checking for adherence to State Medicaid policies. Some States establish policies that are more restrictive than Federal limitations. For example, some States limit providers to one routine visit per month to nursing home patients. States do not always use their information systems to enforce compliance with their Medicaid policies.

1/We did not test Washington's system.

For example, our test in Michigan and Ohio included test claims which were processed to the point of payment that violated such State Medicaid policies as

--tuberculosis treatment is not a covered benefit for recipients between the ages of 21 and 65;

--recipients over 21 are limited to one dental check-up per 12-month period;

--refills for narcotic and dangerous drugs are limited to three per prescription in a 4-month period;

--X-rays are not allowed for recipients over 21 unless the X-rays are required due to a specific disease, injury, or diagnosis;

--group psychotherapy is not a covered benefit for outpatient visits to hospitals; and

--providers are not allowed to charge separately for such services as routine postoperative care which should have been included in a single surgical fee.

Washington's MMIS contractor did not implement computerized State policy edits until a year after its system was certified. During this time claims were examined manually, as they had been before implementing the system, to check compliance with State policy. Thus, even though approved, Washington did manually what its system could have done better--and at much less cost.

Failure to enforce State Medicaid policy is costing the States a lot of money. While the tests were to determine whether there were checks to enforce policy and not to identify the money lost, we did quantify effects in Ohio of not enforcing one of its policies--namely that Medicaid will pay a maximum of $15 per patient per year for dental X-rays. Although many recipients received dental X-rays costing over $15 annually, claims were not examined to assure compliance with the policy limit. As a result, for the 3-year period ended December 1976, Ohio paid $553,000 more for dental X-rays than it should have paid under its policy. During the last 15 months of this period, the system was approved as an MMIS.

State officials gave several reasons for not editing for State policies. Michigan officials said the State's policies--which are often vague--make computer enforcement difficult

because of programing complexities. Ohio officials said they believe State policy could often be better enforced through postpayment review. The dental X-ray example cited above, however, shows that neither prepayment nor postpayment review was adequate. The tests indicate that States can spend more Medicaid dollars than they intended because they do not hold providers to prescribed policies, the purposes of which generally are to limit State Medicaid costs.

INADEQUATE GENERAL SYSTEMS DESIGN

The General Systems Design is inadequate in that it lacks sufficient specificity for State personnel to effectively use it in designing and operating their systems or for HEW personnel to effectively use it when approving systems. Also, it has not been updated to reflect various improvements States have made and proven in practice.

The lack of specificity in the general design combined with the fact that HEW only requires States to have systems conceptually equivalent to HEW's design allows States considerable latitude in system design and operation. This results in systems varying widely from State to State and in HEW personnel having difficulty in determining if a system meets the requirements for 75 percent funding. An updated, more delineated systems design would benefit both Federal and State personnel. The following examples provide some perspective on how the systems design could be improved.

Uniform definitions needed

States do not always use equivalent definitions for systems' terms. This makes comparisons between State systems difficult. The definition of a "claim" used by Michigan, Ohio, and Washington is a good example. The General Systems Design and the State of Michigan define a claim as the bill rendered by a provider to the Medicaid agency for a procedure, a set of procedures, or a service rendered to a recipient for a given diagnosis or set of related diagnoses. When a multiservice bill is paid, each service is counted as a separate claim. However, in Washington a multiservice bill is counted as one claim. Ohio also defines each multiservice bill as one claim, except for drugs in which case each billed drug is counted as a separate claim. Without a uniform claim definition, comparing one State's claim-related statistics to another State's has little value. As discussed in chapter 3, this becomes important when comparing claims processing costs on a "per claim" basis. Claims statistics must be manipulated to even approximate a comparable cost per claim.

Minimum data element definitions needed

The program regulation guide requires about 110 data elements--specific information units having unique meanings such as place and date of service--to be programed into information systems. Neither the program guide nor the General Systems Design explains how to use each data element or how to refine the data elements for optimum use. The problems created by HEW's vague criteria are illustrated below.

Place of service

One required data element is a code indicating where a provider rendered a service. While not specifically stated in the program guide or General Systems Design, this code is to be used in conjunction with a procedure code to determine if the treatment was performed in the appropriate setting. For example, major surgery should be performed in a hospital; home health care should usually be delivered in a recipient's residence; a nursing home visit should be to a recipient residing in a nursing home.

To adequately check for consistency between the service rendered and where it is rendered, all appropriate service locations should be defined. While the systems design defines 10 service places, it does not specify which should be used for what treatment or even the minimum number that should be programed into the system. States, in developing their systems, have not uniformly applied place of service coding.

Only four service places were uniformly defined by the three States: inpatient hospital, provider's office, home/residence, and other (which requires a written explanation by the provider). While all States have outpatient hospital as a service place, it takes on varying definitions. Washington's outpatient hospital definition excludes emergency room visits, which are reported separately. Ohio and Michigan define outpatient hospital to include both emergency room and other hospital outpatient visits. By combining emergency room and other hospital outpatient visits as a single place of service, Ohio and Michigan hamper effective utilization review since emergency situations cannot be conclusively distinguished from nonemergency situations.

The table below shows other differences between the General Systems Design and the place of service coding in the three States reviewed.

Place of Service Codings
For Three Certified Systems

Place of service	Shown in the Systems Design	Code designation used Ohio	Michigan	Washington
Intermediate Care Facility	yes	a/yes	yes	yes
Skilled Nursing Facility	yes	a/yes	yes	yes
Independent Laboratory	no	no	yes	no
Residence: Substance Drug Abuse	no	no	yes	no
Outpatient: Substance Drug Abuse	no	no	yes	no
Emergency Room	yes	no	no	yes
Congregate Care	no	no	no	yes
Health Maintenance Organizations	yes	no	no	no
Clinics	yes	yes	no	no

a/One code covers both.

While one State may need place of service codes that another does not (some MMIS systems are used to pay for non-Medicaid services, such as congregate care in Washington), we believe a minimum data base should be defined and required to be consistently used by all States. The lack of a defined data base requires each systems developer to independently determine which place of service codes should be programed into the system.

Age Indicator

Another data element is the age range indicator required for assuring delivered services are appropriate, based on the recipient's age. The systems design does not specify how to establish age ranges.

Ohio developed an inadequate age indicator. Ohio's system defines age groups in terms of five fixed groups--infants, children, teenagers, adults, and the elderly. Ohio's age groups could not be overlapped; for example, the State could not combine the infant and children age groups to test a procedure. Michigan's and Washington's systems can set age ranges between any two ages. For example, services related to childbirth can be defined as appropriate for persons age 12 to 50 or for any other beginning or ending age. Because of its fixed age ranges--none of which exactly fits the appropriate range--Ohio had to define childbirth

as an allowable procedure for all age groups. In effect, Ohio's ability to effectively use its system for performing age checks is nullified. In fact, Ohio checks only 25 medical procedures to see if the recipient's age is consistent with the service provided. Washington checks about 400 procedures, which indicates that Ohio's system could be improved significantly.

FUNDAMENTAL CHANGE NEEDED: REIMBURSE STATES FOR PERFORMANCE, NOT FOR HAVING APPROVED SYSTEMS

HEW's one-time approval of information systems is not an adequate basis for assuring that continued incentive funding (75 percent reimbursement) is warranted. States are being reimbursed for having an approved system--not for having a system that achieves certain expectations. Once a State's system is approved, HEW has no formal procedure to see that the State continues to operate the system according to Federal requirements. Moreover, as indicated previously, we do not believe HEW adequately determines that systems can operate properly before they are approved. To aid the approval process and provide criteria against which systems' operational success can be periodically measured, performance standards of efficiency and effectiveness should be developed.

Legislation (S. 1470 and H.R. 7079) was proposed in the 1st session of the 95th Congress to reform Medicaid administration. Under this proposed legislation, the amounts paid to a State for various categories of Medicaid administrative costs would be increased, reduced, or terminated, depending on whether the State meets specified performance criteria related to (1) timeliness in making eligibility determinations, (2) eligibility error rates, (3) timeliness and correctness of claims processing, and (4) reporting required data to HEW. The specific criteria relating to claims processing are

--paying, within 30 days of receipt, 95 percent of claims which require no further written information (clean claims) and within 90 days 99 percent of these claims and

--prepayment and postpayment claims review procedures which include reviews to determine (1) the accuracy of data submitted and processed, (2) that the provider is eligible, (3) that the service is covered under the State's program, (4) that the recipient is eligible, (5) the quality and necessity of care if that

function has not been assumed by a Professional Standards Review Organization, (6) that payments do not exceed those allowable, (7) that any third party liability has been paid, and (8) that the claim is not a duplicate.

HEW would be required to review State performance to determine if it is meeting or exceeding the performance criteria. Federal sharing in State Medicaid administrative costs, including information systems costs, can be increased, decreased, or eliminated, depending on how well the performance criteria are met. Thus, States would receive Federal sharing depending on how well they administer Medicaid, not on the current practice of what administrative functions they performed.

HEW took an important first step in March 1978 for developing a basis for establishing such standards by expanding its Medicaid Eligibility Quality Control program to (1) measure the effectiveness of State third party liability programs and (2) identify the incidence of errors in claims processing.

CONCLUSIONS

The full potential of MMIS is not being realized either by the States or the Federal Government. None of the three State systems reviewed fully complied with requirements of legislation or implementing regulations, even though HEW approved them as being operational. This noncompliance stemmed from weaknesses in HEW's system approval process and system design criteria. A fundamental change in Federal administrative cost sharing is needed. States should be reimbursed for operating a system that meets certain performance standards of efficiency and effectiveness--not for merely having an approved system.

We believe that any standards established should be related to administrative cost effectiveness, i.e., administrative funding should be provided by HEW only for meeting performance standards which have a significant program impact, such as cutting cost or increasing service availability.

RECOMMENDATIONS TO THE SECRETARY, HEW

We recommend that the Secretary, HEW, direct the Administrator, HCFA, to:

--Develop written approval procedures for use by HEW personnel in approving State information systems, including specific criteria for testing the operating systems to assure that minimum standards are met.

--Update the General Systems Design and the program regulation guide to reflect system experiences to date, emphasizing greater uniformity and use of proven processing techniques in systems developed by the States.

--Assist the States in developing medically acceptable definitions of medical practice which correlate medical diagnosis, procedure, age, and/or sex so that States can use the computer to check billings for consistency among these factors.

RECOMMENDATION TO THE CONGRESS

To enable HEW to better manage and control the MMIS program, we recommend that the Congress consider amending title XIX of the Social Security Act to require HEW to establish systems performance standards and to require that HEW periodically reevaluate approved systems to determine if they continue to meet Federal requirements.

CHAPTER 3

HEW NEEDS BETTER INFORMATION ON THE COST OF INFORMATION SYSTEMS

HEW has not clearly defined which State costs may be included as Medicaid Management Information System costs. This has led to confusion and dispute about the amount of funds States claim at the MMIS sharing level of 75 percent.

Because States are not required to report details on their information system costs, HEW is not able to compare States' costs. We attempted to compare State costs but, because States do not use the same definitions for counting claims or for cost centers or have adequate cost accounting systems, they were difficult to compare. Some comparisons were made, however, and they indicated that comparisons could be used to identify costly features of a State's operation or to assess the reasonableness of proposed contract prices.

The Medicaid law requires HEW to determine before approving Federal sharing that State Medicaid administrative costs were necessary for proper and efficient administration and, for MMIS' costs, that they be associated with a system that provides efficient, economical, and effective administration. To meet these requirements, HEW needs more detailed information on State MMIS costs on a functional basis, reported in accordance with specifically defined criteria. Such information would enable HEW to analyze State performance and to compare various States' performance and identify areas where particular States are having problems and/or are not operating efficiently, economically, and effectively. The information needed to make these analyses and comparisons is not presently available. 1/ As discussed in chapter 2, Federal sharing in MMIS costs should be based on a State's performance, and detailed information on MMIS operations and costs would also be necessary for HEW to judge or assess State performance.

In addition to requiring States to meet performance standards, we believe States should be expected to meet the

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1/We issued a report to the Congress, "Accounting for Automatic Data Processing Costs Needs Improvement," FGMSD-78-14, Feb. 7, 1978, which points out that data is not available to enable cost comparisons of information systems used by the various Federal agencies.

standards at a reasonable cost. For example, if one State can meet or exceed a performance standard for a cost of $1 per claim, there should be a logical reason why the Federal Government should share at the same rate in the costs of another State which spends $2 to meet the same standard. With adequate data, HEW could, as a minimum, assist States whose costs are out of line for performing a given function by helping them apply techniques used by more cost-effective States.

ALLOWABLE SYSTEMS COST NOT CLEARLY DEFINED

HEW has not developed adequate guidance on what State administrative costs are proper for inclusion in the 75-percent Federal reimbursement level if the State has an approved system. HEW has been indecisive as to what is and what is not allowable as an MMIS cost.

Correct completion of the HEW form used to claim Medicaid administrative expenses requires specific guidelines on what costs are allowable at various Federal sharing percentages. The MMIS program regulation guide is the only official HEW document for determining costs to be reimbursed at the 75-percent level for operational MMISs and it only provides general guidance. It defines operations as "automated processing of claims, payment, and reports on a continuing basis" and includes "the use of supplies, software, hardware, and personnel directly associated with the functioning of the mechanized System." It also lists costs attributable to the information system including forms, system hardware and supplies, maintenance of software and documentation, and personnel costs for operations control clerks, suspense and/or exception claims processing clerks, data entry operators, microfilm operators, computer terminal operators, peripheral equipment operators, and computer operators. Clerical and manual claims processing personnel other than those cited above are to be excluded from the 75-percent Federal MMIS sharing.

While the program guide describes most costs related to the information system, the list is incomplete. State officials responsible for reporting costs have difficulty in obtaining assurance that costs not specifically listed are allowable. HEW personnel also have difficulty in giving States guidance on what additional costs may be included as MMIS costs. An example is the cost for EOMB postage. Even though the law requires issuing an explanation of benefits to qualify for 75 percent sharing, Michigan's claim for

postage at the 75-percent Federal sharing level has been disallowed.

Because there are many costs which are or conceivably could be legitimate MMIS costs, HEW regional officials have had problems approving State claims for MMIS sharing. Becaure HEW has not formally interpreted what other costs are allowable, HEW's regional representatives review (or question) costs 1/ without an adequate basis for actually determining the claim's propriety. Disagreements can arise. For example, for the March 1976 quarter, Michigan initially claimed $2.5 million for operations cost at the 75-percent rate. Michigan subsequently amended the claim to $2.8 million. HEW, after obtaining additional cost information not included on the cost report, proposed allowing only $1.6 million; the State countered with a $2.4 million claim. HEW and the State finally agreed on $2.1 million. This situation could have been prevented if adequate guidelines on allowable costs were available from HEW. The cost elements contained in various Michigan proposals and their ultimate disposition are shown in the following table.

Cost center	Original Michigan proposal	Revised Michigan proposal	Initial HEW proposal	Michigan's counter-proposal	Final agreed-upon proposal
Surveillance and third party recovery	$ 241,078	$ 446,418	$ -	$ 146,740	$ -
Administrative office cost audit and rate setting	34,618	30,866	30,866	38,710	38,710
Bill processing	152,572	156,630	-	-	-
Policy and planning	513,861	612,974	274,660	612,974	612,974
Exception unit	14,299	244,682	18,428	88,296	88,840
Manipulation and review	62,513	61,826	-	43,826	43,826
OMB postage	-	22,356	-	22,356	-
MMIS bureau (direct costs)	154,522	154,522	-	169,699	-
	1,298,365	1,298,365	1,298,365	1,298,365	1,298,365
Total	$2,511,928	$3,033,039	$1,622,319	$2,440,966	$2,082,715

1/HEW does not systematically examine the cost reports submitted by States with approved MMISs. Rather, as a general rule, HEW representatives look for significant changes in claimed costs from one quarter to the next.

COMPARING STATE INFORMATION SYSTEM COSTS COULD HELP REDUCE ADMINISTRATIVE COSTS

The data HEW obtains from States on information system costs is inadequate for making comparisons among States. If a State has an approved MMIS, its costs are combined with those associated with skilled medical personnel and reported as a single item for 75 percent sharing. If a State does not have an approved system, its costs are combined with most other administrative costs and reported as one item for 50 percent sharing.

The Permanent Subcommittee on Investigations believed that comparing State costs for accomplishing specific claims processing functions, such as data entry and claims correction, would help identify costly, inefficient State administrative practices.

For the Medicare program, HEW requires its claims processing agents (intermediaries and carriers) to report costs on a functional basis. HEW has been able to use this reported data to identify Medicare claims processing agents whose costs were out of line with those of other processing agents. HEW was then able to assist its agents in reducing their costs. We believe a similar system would be beneficial for Medicaid claims processing costs. Therefore, we attempted to obtain data from the States which could be compared. We encountered difficulties in obtaining such data and eventually had to develop estimates to make any comparisons. The limited comparisons we made identified some problem areas. HEW should obtain the necessary data to make comparisons among the States and use the results of the comparisons to assist States in lowering administrative costs and/or improving claims processing.

Why cost comparisons are difficult

HEW obtains very little information on the costs of operating MMIS. In fact, HEW did not even know how much money it was spending on 75 percent sharing in MMIS because other Medicaid administrative costs are also reimbursable at the 75 percent sharing rate. The Permanent Subcommittee on Investigations requested us to develop functional costs 1/ for the three States reviewed and to attempt to compare the costs.

1/Functional costs are those costs related to performing such specitically defined tasks as data entry or claims correction.

In trying to develop and compare various State information system costs, numerous factors either hindered or biased cost comparisons. Some factors cannot be eliminated because they are inherent in the nature of the Medicaid program; that is, States independently develop, operate, and manage their programs so there are differences among the various State Medicaid programs. Other factors, however, can be eliminated or their effects minimized by better HEW reporting requirements. Some factors making comparisons of State information system costs difficult follow.

Differences in claim definition and statistics

As discussed in chapter 2, the three States did not define a "claim processed" in the same way. In many cases, a single claim form can be used to bill for more than one service. Michigan counts each service as a claim. However, Washington counts all paid services on multilined claims as one claim. Ohio also counts multilined claims as one claim, except for drug claims where each line is counted as one claim. Thus, if the reported number of claims processed was used to compare processing costs per claim, the results would be misleading because States which count each line as a claim would show a lower cost per claim than those that count a multilined claim as one claim processed.

Another factor which affects the comparability of claim counts is that the number of lines on claim forms varies among States. For example, Ohio's physician claim form can be used to bill for up to 15 different procedures, Washington's for 7, and Michigan's for 4.

In addition, the mix among various types of claims processed by States affects the cost per claim. This results because it takes more time and/or resources to process claims for one type of service--for example, physician services--than it does to process another type of claim--for example, drugs. Thus, a State with proportionately more drug claims to physician claims than another State would appear to have a lower average cost per claim processed if no adjustment was made for the mix of claims.

To develop a "cost-per-claim," a comparable volume figure is needed for each State. Since this was not available, we tried to make a cost comparison by adjusting the States' reported claims statistics. However, because no common basis existed, the volume figures used in our calculations are inexact. Total volume statistics were used in comparisons;

however, differences between the mix of claims or the services covered by the States being compared were not considered because data on costs by type of claim was not available.

Peculiarities in States' overall claims processing procedures can also result in differences between the number of claim forms received, the number processed, and the number paid. For example, Michigan pays approximately 75 percent of all claims submitted, while Ohio pays nearly 95 percent. This results primarily because, if Michigan identifies an error on a claim, it usually returns the claim to the provider. Ohio, on the other hand, usually tries to correct a claim itself rather than returning it to the provider. In both States, if a claim is returned to a provider, it is counted as a claim processed and, if and when the provider returns the corrected claim and it is processed, it is again counted as a claim processed. However, since Michigan returns many more claims than Ohio, Michigan has many more "claims processed" to pay for the same number of services than Ohio does. Thus, using the number of claims processed rather than the number of claims paid would distort any comparison of these two States' claims activity.

Washington's claims statistics were inadequate for our comparative analysis and, in our opinion, inadequate to effectively manage its Medicaid program. Because Washington commingles non-Medicaid and Medicaid claims 1/ for processing and reporting purposes, it does not know the number of non-Medicaid claims reported in its claims volume statistics. Washington cannot determine if volume variations are caused by Medicaid or non-Medicaid conditions. Washington's inability to provide an accurate count of the number of non-Medicaid claims processed forced us to arbitrarily reduce its total reported claim volume by 10 percent (the State's best estimate of the non-Medicaid claim volume).

This problem also complicates accounting for the non-Medicaid claims processing costs which are not reimbursable by the Federal Government. Washington allocates its total claims processing cost based on the total amount paid for Medicaid and non-Medicaid services. A preferable cost allocation method would be the number of claims processed. Accurate claim counts would better indicate system activity, thus

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1/Non-Medicaid claims are those for medical services paid for recipients of general assistance which is a 100-percent State funded program. No Federal sharing is available for costs related to those claims.

providing a more realistic basis for distributing administrative cost. HEW officials agreed that claims processed would be a better statistic upon which to allocate claims processing costs.

System development costs affect comparison

Since there is currently no standardized information system, development costs can vary from very little if a State modifies an existing system to suit the peculiarities of its Medicaid program to several million dollars if a State develops a new comprehensive MMIS. Also, development costs can be included in the charge per claim processed on fixed price contracts rather than stated separately. Since development costs in the States reviewed were charged as they occurred, rather than amortized over a system's expected life, they are not reflected in the cost of operating the system. Development costs can be significant and they should be considered in a precise cost comparison. The table below shows our estimate of the effect of amortizing the system's development cost for Michigan, Ohio, and Washington.

Development Cost for System

State	Reported cost (millions)	Effect of development cost amortization (note a)
Michigan	$3.5	$ .033 per claim
Ohio	1.0	.013 per claim
Washington	0.0	.000 per claim (note b)

a/Based on constant claim volume and a 5-year system life and adjusted for differences in the definition of a claim.

b/No specific charge was made by the contractor for systems development. Costs of development may have been included by the contractor as part of its fixed charge per claim processed.

Long-term contracts affect comparison

Washington has a relatively fixed cost, long-term contract with Electronic Data Systems Federal Corporation, which covers a 5-year period. Since inflation will undoubtedly occur over this period, the contractor's price should become more advantageous over time, compared to the in-house costs which annually reflect inflation.

Operational differences

The systems' level of sophistication affects operating costs. For example, Michigan has an online client information system which instantly checks a recipient's eligibility. The online file allows on-the-spot eligibility updates, thereby helping to assure that the claims processing cycle uses current eligibility information. Neither Washington nor Ohio has such a system and, therefore, each incurs less cost in supporting the eligibility subsystem. However, Michigan's higher claims processing costs may be more than offset by savings in program costs and/or other administrative costs.

OUR COMPARISON OF INFORMATION SYSTEM COSTS

We attempted to develop costs for each type of function--data entry, computer time, claims corrections, etc.--so that comparisons of the component parts of MMIS costs could be made to determine why differences exist among the States. However, the States' claims processing units were not always organized on a functional basis and the tasks of organizational units often covered more than one functional area. Ohio's and Washington's accounting systems were not designed to provide functional cost data. While Michigan did have detailed functional cost data, it was often difficult to equate Michigan's cost data with the data available in Ohio and Washington. Because of these difficulties, we were unable to compare Michigan with the other two States and it was necessary to allocate Ohio's and Washington's costs among the various functional cost areas. Therefore, our cost per claim figures for the two States are only "ball park" estimates.

An example of why cost allocations were necessary relates to Washington's claims staff. Washington charges costs for claims correction, claims control, and provider relations to the same cost center. In fact, for part of the period covered by the review, these functions were charged to an even larger cost center. To develop an estimated cost for the provider relations function, we had to allocate a part of the overall cost center's costs to this function. The allocation was based on the unit personnel officer's classification of the unit's employees.

The following table gives our estimates of the costs per claim for three functional areas for Ohio and Washington.

Comparison of Functional Cost Per Claim Processed in Ohio and Washington (For 9 months ended March 31, 1977)

Function	Ohio	Washington
Claims control and correction	$0.103	$0.351
Provider relations	.020	.034
Data entry and computer cost	.235	a/.480
Total	$0.358	$0.865

a/These functions are performed under contract with EDSF for a fixed fee of $0.48 per claim.

The data in the table above shows that Washington's costs for these functions are significantly higher than Ohio's costs. Washington's higher cost for claims control and correction was probably attributable to underuse of its information system. Prior to July 1977, Washington manually checked claims for compliance with State Medicaid policy instead of computerizing the review. Also, Washington required prior authorization by the State agency for many services. If prior authorization was not obtained, the claim was reviewed manually before payment. Overall, nearly half of all claims submitted underwent some form of manual review before payment and the costs of these manual reviews were included in the claims correction function.

Washington's contract price for data entry and computer costs is more than twice as high as Ohio's cost for performing this function in-house. This raises a question about the reasonableness of the contract price. The contract price of $0.48 per claim includes EDSF's overhead costs and a profit factor, whereas Ohio's cost of $0.24 does not include all overhead costs or any profit factor. Also, the work performed under the functional elements is not identical. Nevertheless, availability of Ohio's costs and other States' costs would have assisted Washington in negotiating its contract and HEW in reviewing the proposed contract for approval.

Ohio's cost for data entry was 7 cents per claim which is relatively high compared to Michigan's cost of approximately 4 cents per claim for data entry, adjusted to make the claim definition the same. Some data entry methods employed

by Ohio were much more costly than others, as shown in the following table.

Ohio's Data Entry Cost Per Claim
(9 months ended March 31, 1977)

Source	Input method	Percent of volume	Approximate cost per claim
Providers	Computer tape	42.1	$0.000
Medicaid agency	Optical character recognition (scanner)	30.5	.068
Medicaid agency	Computer disk	11.1	.233
Contractor X	Computer tape	9.0	.149
Contractor Y	Computer tape	3.9	.156
Ohio's State Data Center	Computer tape	3.4	.117
Weighted average cost per claim		100.0	$0.070

This data shows such high-cost elements of the data input function as the Medicaid agency's 23 cents to enter claims using the computer disk method. Also, data entry contract costs appear to be high compared to the State's in-house costs for the same data entry method. The State used the high-cost computer disk method because it used this entry method in its Aid to Families with Dependent Children program and had time available on these data entry machines.

MICHIGAN'S CLAIMS PROCESSING COST

Michigan had provided the Permanent Subcommittee on Investigations with information on its costs to process a claim. This information showed that Michigan's costs were much lower than several other States which contracted for claims processing services. The Subcommittee asked us to verify Michigan's data and determine if Michigan's cost per claim could validly be used to compare other States' costs.

Michigan prepares an annual estimate of the Medicaid claims processing cost by function. During the review, State officials determined, for the first time, the actual cost by function for the period July 1975 through September 1976. The report provided a detailed cost breakout for many administrative functions. To check the accuracy of the actual cost data provided by Michigan, we traced the cost figures to the

expenditures made by various cost centers which were used to develop the functional cost figures. (Appendix II contains a table showing Michigan's Medicaid claims cost by function.)

Michigan was the only State reviewed which accounted for its expenditures on a functional basis. The dollar figures are representative of the real cost. However, Michigan's cost per claim included in appendix II cannot be directly compared to Ohio's or Washington's because its claim definition differs from other States. In appendix II an adjustment was made for claim definition differences by showing the cost per invoice. While not exactly comparable, Michigan's per claim cost of $0.50 (see footnote g, app. II, for functions included) is reasonably comparable to Ohio's and Washington's per claim costs of $0.36 and $0.86, respectively, for the claims control and correction, provider relations, and data entry and computer cost functional areas.

Michigan's functional cost breakdown not only includes MMIS-related costs but also many other Medicaid administrative costs. However, not all administrative costs are included (for example, eligibility determination costs are not included), and the cost breakdown does not directly relate the functional costs to the Federal sharing rate for that function. Basically, Michigan uses its cost accounting system for internal management purposes rather than for claiming Federal reimbursement for administrative purposes.

We believe HEW needs detailed data to adequately monitor and control systems costs. If HEW required States to provide standardized detailed cost information, it could then compare State costs and have a mechanism for rationally developing priorities in its management review efforts.

As discussed in chapter 2, HEW needs to analyze the cost effectiveness of State Medicaid administration. To do so, HEW would need to have standardized cost breakdowns. In our opinion, this could be accomplished without requiring a uniform cost accounting system.

Because of the scarcity of data from other States and because of differences in the definitions of cost centers and claims volumes among States, we do not believe that, at this time, States can be compared with one another for cost effectiveness purposes. Since we were unable to directly compare Michigan's data with other States, we are not in a position to say whether Michigan's costs would provide a good standard for other States.

CONCLUSIONS

Lack of a clear definition of the kind of information systems' costs for which States can claim 75 percent sharing has caused confusion among both HEW and State personnel and has hampered HEW's ability to effectively monitor and control costs. Likewise, HEW cannot effectively monitor or control Medicaid administrative expenditures because of limitations in cost-reporting requirements.

HEW does not require States to develop or report the cost of systems operations in detail. Without detailed cost reporting, HEW cannot adequately compare costs between States. Further, costly or inefficient administrative procedures are obscured in the current method of cost reporting, and the reasonableness of such procedures goes unquestioned. In fact, States often cannot identify such problem areas themselves because they do not accumulate the data necessary to do so.

The absence of relevant cost data limits HEW's ability to compare expenditures among States. Because States are not required to develop and provide details of their operating cost, their accounting systems are not always refined and relevant functional cost data is often not readily available.

HEW requires its Medicare claims processing agents to report their costs on a functional basis and HEW uses this data to compare the costs of the agents. We believe a similar system is necessary for Medicaid claims processing systems.

Even if States are required to meet performance standards as suggested in chapter 2, there needs to be some relationship between reasonableness and allowability of expenditures in meeting established standards. However, cost data presently available does not provide an adequate basis for establishing reasonableness.

RECOMMENDATIONS TO THE SECRETARY, HEW

We recommend that the Secretary, HEW, direct the Administrator, Health Care Financing Administration, to:

--Clearly define the kinds of information systems costs that HEW will reimburse at the 75-percent sharing level.

--Develop and implement a functional cost reporting system for Medicaid claims processing, similar to that in use for Medicare, to facilitate cost comparisons among the States.

CHAPTER 4

THE EFFECTIVENESS OF ONE SUBSYSTEM NEEDS IMPROVEMENT

The Surveillance and Utilization Review (S/UR) subsystem and the Management and Administrative Reporting (MAR) subsystem are integral parts of an MMIS. If they work properly, these two subsystems are what make an MMIS superior to just a good claims processing system. Their ultimate objective is improved Medicaid management through computerized data consolidation, organization, and report preparation. The S/UR subsystem has two basic purposes: (1) provide information to assess the level and quality of care provided and (2) provide information which reveals and facilitates the investigation of suspected instances of fraud or abuse by Medicaid program participants. In its present state of development, the S/UR subsystem does neither effectively.

The MAR subsystem should provide such necessary informational reports as expenditure analyses to show the financial and operational status of the program to the various levels of program management. Generally, State officials were using MAR reports in the manner intended and were satisfied with the results they were obtaining.

Because these two subsystems should be helping States manage the Medicaid program, the Subcommittee asked us to describe how States use the S/UR and MAR subsystem outputs and whether they are used timely. The review of the S/UR subsystem focused on identifying problems rather than on determining which State had the best system. In fact, none of the three States reviewed could effectively use the S/UR outputs. HEW must take a more active role in helping and encouraging States to improve their S/UR subsystems and use their S/UR outputs. HEW should also continue to explore and analyze such alternative mechanized health care review systems as those being used experimentally in several States.

S/UR SUBSYSTEM INEFFECTIVE AND UNDERDEVELOPED

The S/UR subsystem is not fine tuned so that its output is reliable or manageable. None of the three States were routinely using all the subsystem's outputs. Michigan was not even producing all the reports required for system approval. Because the benefits currently being derived from the S/UR subsystem appear marginal, it needs further development and a thorough evaluation by HEW to assure its soundness and effectiveness.

S/UR subsystem objectives

HHS has suggested that State activity to control misuse of Medicaid by providers and recipients focus on expanding existing utilization review and control mechanisms. Crucial to this expansion is producing and using profiles of provider practice and recipient utilization. The S/UR subsystem provides a mechanism for developing data necessary for performing utilization review.

The S/UR subsystem has four primary objectives:

--Develop, over time, a comprehensive statistical profile of health care delivery and utilization patterns established by provider and recipient participants in various categories of service authorized under the Medicaid program.

--Reveal, for further investigation, potential misutilization and promote correction of actual misutilization of the Medicaid program by its individual participants.

--Provide information which will reveal and facilitate the investigation of potential defects in the level of care or quality of service provided under the Medicaid program.

--Accomplish the substantive objectives stated above with a minimum level of manual clerical effort and with a maximum level of flexibility with respect to management objectives.

The S/UR subsystem's basic approach is the computerized exception reporting technique. The subsystem produces at differing intervals--monthly, quarterly, or semi-annually--numerous computer listings which are each filled with hundreds of pieces of information, all based on individual paid claims histories. These listings identify Medicaid participants (providers and recipients) who potentially are misusing the Medicaid program. The exception processing technique isolates numerous potential misutilizers for detailed review from the total universe of providers and recipients in the Medicaid program.

These listings must then be manually screened and the majority of those identified are eliminated from further consideration. The remaining ones must then be investigated and, if warranted, corrective action(s) initiated. This whole

cycle continually repeats itself. Because reports do not conclusively prove misuse, the State must investigate the suspected abuser by examining claims related to the individual by peer review and/or by conducting field audits to conclusively determine if misutilization actually happened.

The S/UR subsystem separates suspected program abusers from other participants based on medical activity patterns. Isolating a specific participant as a potential abuser requires some rather complex computer decision logic. The General Systems Design cites two areas where human intervention in the logic is necessary: one is the determination of how participants are assigned to peer groups; the other is establishing group norms. Developing the statistical indicators which appear in the profile reports (report items) is also critical in identifying abusers. Weaknesses in defining report items, peer groups, and group norms are hampering S/UR's effectiveness.

Exception report items

The S/UR subsystem should be programed to monitor those activities which best indicate abuse or misuse. The proper selection of these indicators (which appear in the subsystem's output as report items) assures that the exception processing cycle analyzes the best indicators. Some report items used in Ohio follow.

Examples of Report Items Used by Ohio

Provider indicators	Recipient indicators
Dollars paid	Dollars paid
Recipients served	Number of different diagnoses
Office visits	Different physicians seen
Office visits per recipient	Different optometrists seen
Injections per office visit	Prescriptions by:
Surgical services rendered	total
Diagnostic services rendered	narcotic
Prescriptions written	psychothropic
Ratio of prescriptions per office visit	analgesic
Therapeutic procedures	Transportation services
Pathology procedures	Podiatric services
Laboratory services ordered	

States use differing numbers of report items and, at least in the case of some Ohio and Michigan S/UR reports, few similarities between the report items used occur. Since

Ohio's and Michigan's S/UR subsystems were developed by the same contractor, their reports were compared. The comparison showed a few report items were the same; most were different. Michigan had far more report items than Ohio. These differences are illustrated in the following comparison of pharmacy and physician profile reports.

Differences in Report Items

Profile report	Number of report items the same	Total number of report items used	
		Michigan	Ohio
Pharmacy	16	151	42
Physician	24	173	85

States are uncertain as to what indicates abuse and/or how many indicators are needed. This uncertainty is perpetuated because the system has no capability to determine which indicators do the best job of identifying potential abusers who are found to be abusers when investigated. This missing link--identifying which indicators best identify abusers--has not been developed.

Peer groups

Homogeneous provider and recipient groupings are considered essential to proper exception processing. Improper classification affects the subsystem's reliability since a misplaced participant will not be measured against the appropriate peer group. Thus, the participant can be improperly identified, or fail to be identified, as a potential abuser.

For purposes of exception reporting, providers are classified according to demographic and medical characteristics. The peer groupings identify specific services or areas of medical expertise. For example, physicians may be divided into groupings such as allergy and dermatology, radiology and radiation, urban or rural, and individual or group practice. Recipients, on the other hand, are segmented into groups having specified age ranges, as is done in Ohio, or further segmented by age and sex, as in Michigan.

The following table shows the number of S/UR provider subclassifications by service categories covered for Michigan and Ohio.

Provider Service Categories

	Michigan	Ohio
Inpatient hospital (under 100 beds, over 500 beds, teaching hospital, etc.)	14	9
Independent lab & X-ray	6	2
Clinics	-	10
Prescribed drugs	16	8
Medical supplies	6	10
Optometric services	7	7
Physician services	45	33
Speech therapy	1	-
Home health services	1	-
Podiatric services	5	-
Ambulance services	7	-
Chiropractic services	5	-
Total	113	79

As evident in the table, Ohio and Michigan classify providers differently. Also, States continuously change these classifications in an attempt to increase the subsystem's effectiveness. Peer grouping problems can and do adversely affect the S/UR reports' validity.

Ohio has been slow to correct known S/UR deficiencies. For example, Ohio has approximately 700,000 Medicaid eligibles who are supposed to be classed according to age. Yet, nearly 300,000 Ohio eligibles are categorized in a "no age" class, rather than in their appropriate age class group, because of errors in the eligibility subsystem's file. Ohio officials acknowledge that this unresolved problem skews the recipient distribution patterns on S/UR profiles.

Similarly, Michigan officials acknowledge that provider classifications based on specialty, region, and type practice often prove to be incorrect. A significant number of providers who appear as exceptions on reports do so because they are misclassified. Consequently, the State must reclassify providers based on their medical practice patterns. For example, if experience shows that a physician spends most of the time practicing medicine in an emergency room, he or she is reclassified into the emergency room category from the medical specialty (i.e., internal medicine, neurology, pediatrics, etc.). Otherwise, the medical practice pattern will noticeably differ from the specialty peer group and the physician may well be reported as an exception in each cycle.

Each classification group, because of varying activities, has different report items functioning as exception indicators. The number of report items for each subgroup will vary depending on the complexity of provider services or the detail needed to perform a satisfactory analysis. Thus, the interrelationship of peer group and report items comes into play; the wrong activities are screened if misclassification occurs.

Exception control limits

A basic premise of exception processing is that if a provider or a recipient activity deviates from an acceptable value by more than some specified range, the individual is potentially a program abuser. However, setting the acceptable range--either manually or mechanically--so that the right number of potential abusers is identified, is less than an exact science. Consequently, the exception control limits used by the S/UR subsystem can be unrealistic or bear little relationship to the realities of the medicine practiced by Medicaid providers.

Defining what constitutes "significant departure from normal medical practice" necessitates careful analysis and must bear some relationship to reality. Ohio generally lets the information system set the exception control limit at two standard deviations from the peer group's norm for report items. Michigan often fixes numeric limits rather than relying on the information system's set limits. Quite often these are set arbitrarily and continually adjusted in an attempt to find the appropriate limit. Washington utilizes both methods for setting its control limits. Regardless of the method used for setting the limit, no State has arrived at what it believes to be the correct control limits.

Selecting the proper exception control limit is important since it affects the number of participants identified as potential abusers. If S/UR's output is to be a utilization control vehicle, each excepting profile should be analyzed. However, the volume of S/UR exception profiles currently overwhelms available staff and, as a result, many profiles are not reviewed.

An indication of the workloads resulting from S/UR is shown in the table below, which gives the number of exceptions identified during an average reporting period by the Michigan and Ohio systems.

	Average Exceptions	
State	Providers	Recipients
Ohio	3,500 (quarterly)	8,000 (semi-annually)
Michigan	2,400 (quarterly)	never produced

S/UR staffing

Whether the activity is utilization control, fraud and abuse detection, or quality of care assessment, sufficient staff is needed to have an appreciable impact on the Medicaid program. Operating and effectively supporting the S/UR subsystem also requires a technically capable staff.

A basic assumption of the General Systems Design is the existence of an adequately staffed and well-trained S/UR unit. The unit is assumed to be of sufficient size to deal with all major cases of misutilization and possess medical and administrative expertise to intelligently use the subsystem. The people input in using the subsystem--that is, developing effective parameters to produce the desired outputs--has been discussed in relation to the problems of setting norms, developing report items, and classifying participants. The other staffing aspect is how S/UR output is used.

S/UR reports by themselves neither prove fraud or abuse nor do they prove the existence of defects in the level of care or quality of service; they present data that reveals the possible existence of these situations. Therefore, it is important that States have adequate and qualified staffs to both interpret the statistical data generated on S/UR reports and to investigate the resulting suspected providers or recipients.

The available S/UR staff varied among States. Comparisons of staffing sizes among States are rather meaningless since States differ in the exception criteria used, the number of program eligibles and providers, the number of reports produced, and the time spent on individual participant analysis. However, in view of the number of average quarterly exceptions, it is questionable whether any of the reviewed States' existing staff can adequately handle their workload. In fact, none of the three States used all S/UR reports produced.

Little use made of reports

The S/UR subsystem's objectives are met by producing statistical data in the form of reports and then using these reports. Not producing reports or not utilizing them after production defeats the intent of the subsystem. Complicating the report production situation is their cost/benefit when viewed from the perspective of the reports' unproven reliability and the lack of staff to effectively analyze and utilize them. States have taken varying measures to deal with this particular problem, but often reports are produced and little use is made of them.

The General Systems Design prescribes frequencies for report generation. Most provider reports were to be produced monthly--recipient reports, quarterly. Provider and recipient detailed reports are to be produced on an "as required" basis. Ideally, all of the above should be produced for each service category. None of the three States followed this prescribed frequency and doing so would probably serve no useful purpose now because the States do not have sufficient staff to use all the reports currently produced and because of the questionable usefulness of some of the reports.

Michigan produced provider reports quarterly. Basically, only the physician reports (including podiatry and chiropractic services) were used, although reports for any type of provider can be requested. Nursing homes are not included in S/UR statistics because their claims are not processed through the normal claims processing system.

Michigan had never produced the entire set of recipient reports. In fact, only two recipient class groups were produced to obtain HEW approval of the system. One official believes that producing the recipient profiles will probably never be cost effective because the recipient recoveries will never be greater than the computer cost to produce reports and analyze results. The computer cost for producing Michigan's S/UR general and summary provider profiles was $438,000 for the 15 months ended September 30, 1976.

In Ohio, all S/UR reports listed in the General Systems Design are printed; however, some reports are not used. For example, the treatment analysis report, designed to assist in discovering overutilization by physicians and inpatient hospitals, is used extensively for hospitals but the staff made little use of it for physician review. Officials believed the data included was not meaningful for that purpose.

Ohio produces summary profiles quarterly for all providers but review was normally limited to physician reports. All other provider categories are reviewed only when complaints, tips, or allegations require their use. The Recipient Summary Profile is produced semi-annually and, because thousands of exceptions appear on the listing, the reports are seldom used. Officials believe the dollar recovery potential does not justify extensive review.

It is rather obvious that producing the reports monthly would serve no purpose because the States do not currently use the less frequently produced reports. Also, producing reports and then not using them is a misutilization of computer resources and has no economic return. On the other hand, failure to produce the reports is inconsistent with the systems' operational intent and results in a State's system failing to meet requirements for operational approval under HEW regulations and guidelines.

Reliability of S/UR data base

Data used in the S/UR subsystem comes from the claims processing subsystem. Therefore, the data's reliability depends, to a large extent, on the computer edits in the claims processing subsystem. As discussed in chapter 2, some serious questions on the effectiveness of some claims processing edits exist. Also, several edits are not used which would be beneficial in screening data which is input to the S/UR subsystem.

Field observations of the manner in which medical procedure codes are identified and transcribed to claim forms during a separate GAO review of Ohio's Medicaid program conducted during 1977 cast additional doubt on the validity and reliability of the data upon which the S/UR subsystem is based. During the review of provider groups in Ohio, we observed that billing clerks, who may or may not be medically trained, are often responsible for assigning procedure and diagnosis codes on the claim form from information on the recipient's medical chart. In many instances, the billing clerks had incorrectly assigned procedures and/or diagnosis codes or made other types of coding errors. These errors made what were valid medical treatments appear to be abusive practices. In this respect, few edits operate in Michigan's or Ohio's claims processing subsystem to identify procedure codes that conflict with diagnosis codes. Conversely, many procedures which are completely valid may appear questionable in S/UR reports because of incorrect coding on the invoice.

This "bad data" is included in the treatment analysis reports and physician and recipient profile reports. Since S/UR exception reports are based on peer averages and often standard deviations, erroneous data used in calculating the average and standard deviation affects the figures which are used in setting the parameters for participant exceptions. Thus, errors may be made in calculating which providers should or should not appear on the exception list.

Quality of care not assessed by S/UR

An S/UR objective is to develop data to reveal and facilitate investigating potential defects in the level of care or quality of service provided under the Medicaid program. The treatment analysis reports produced by the S/UR subsystem are intended to help States accomplish this task. The treatment analysis report organizes data to show specific services rendered in response to specific diagnoses.

Ohio and Michigan said that the treatment report is not meaningful for reviewing physician-rendered services because of data problems. Low priority has been given to correcting or working with the physician treatment reports. In addition, Michigan found in a study that 20 percent of the diagnoses submitted on inpatient hospital claims were incorrect. This, coupled with the limited availability of acceptable criteria for determining if a specific service is appropriate for treatment of a given diagnosis, leaves the reports' reliability suspect. The problem of poor diagnosis coding was also present in Ohio.

None of the States are very active in addressing the quality of care issue. Both Michigan and Washington indicated that while the computer analysis provides data, a professional interpretation, based on analyzing the providers' medical records, is the real test. Reviewing medical records, except in connection with suspected abuse cases, is not presently practical in the opinion of State officials. Ohio has directed little of its review effort towards determining the quality of ambulatory care.

ALTERNATIVES TO THE S/UR SUBSYSTEM

While MMIS requires an S/UR subsystem for utilization review, not all States have opted to implement a system. HEW realizes no universally acceptable or proven approach to utilization review exists. Accordingly, other approaches are being used or developed.

New Jersey has a Medicaid fraud and abuse detection system which it developed under an HEW contract. It addresses fraud detection, but uses a minimal data base and is inexpensive to operate. Oregon is developing a mini-S/UR system which reduces operational cost and is more manageable. Utah has the Physician Ambulatory Care Evaluation (PACE) system.

The PACE program was conceived by Utah's prototype Professional Standards Review Organization in 1971. PACE is comprised of both a computerized system for initial processing and screening of medical care information and a professional review component. Both elements focus on analyzing physician practice patterns in terms of peer expectations and comparative performance.

PACE review centers on the professional evaluation of the appropriateness and necessity of ambulatory care, as billed to Medicaid. The screening guidelines are applied just prior to payment--that is, after eligibility and benefit coverage have been determined. PACE utilizes profiles of services received by each patient and the practice of each provider over a period of time. The prime vehicle for review is the exceptional case--some aspect of an individual patient's care which deviates from preestablished screening parameters and which is reported out for reviewers' scrutiny.

The PACE program has established certain criteria for many diagnoses normally used in providing medical services to Medicaid recipients, and is designed to review medical care based almost entirely on the information normally reported on claim forms. For example, if a recipient has diabetes and this diagnosis code is properly listed as the primary illness on the claim form, it would be expected that the recipient would receive at least one urinalysis per year, not more than two blood sugar analyses within a 180-day period, and no more than four office visits within a 180-day period. Not meeting these criteria would cause a diabetes diagnosis claim to be recorded on an exceptions list and to be manually reviewed.

The PACE program offers an alternative means of assuring quality of care and a utilization control mechanism. Because S/UR is not effectively doing either, this and other approaches need to be considered by HEW.

USERS OF MAR SUBSYSTEM GENERALLY SATISFIED

The MAR subsystem is designed to provide information necessary to support various levels of program management. The MAR subsystem is supposed to compare current and past performance data, focus attention on problem areas, and alert managers to undesirable program activity trends. All three States produced and normally used what were considered to be equivalent reports and/or data to those prescribed by HEW systems' requirements for MAR. Report users were generally satisfied with reports received.

Also, MAR subsystem reports and their formats and the data made available through the reports varied among the States. We could not determine conclusively whether one State could better manage its program if it had the data available through another State's version of a required report.

MAR subsystem objectives

The subsystem's primary objectives are to:

--Establish information reporting to assist management in fiscal planning and control.

--Provide information required in reviewing and developing medical assistance policy and regulations.

--Monitor the progress of claims processing activity and provide summary reports reflecting the current status of payments.

--Review provider performances to determine the adequacy and extent of participation and service delivery.

--Report recipient participation to analyze usage and develop more effective programs.

To meet these objectives, the General Systems Design originally prescribed 26 individual reports (later revised to to 29) with at least half to be produced monthly. Included were reports showing (1) program expenditures as compared with budgeted amounts by a major category of service (inpatient hospital, nursing home, physician, etc.), (2) number of recipients enrolled and number receiving services, (3) expenditures by aid category (AFDC, Aged, Blind, or Disabled), and (4) various claims processing performance analyses.

Different reports and/or formats

None of the three States are providing the exact reports described in the General Systems Design. Washington's reports often do not resemble the format that HEW had described. In many instances, Washington produces several reports to obtain the same data that a single report could accomplish.

Ohio's MAR report formats most closely resembled those prescribed by the systems design. However, as of September 1977, Ohio was producing only 21 reports and using 20. During the preceding two quarters, one report was deleted, two were combined into one, and at least five different reports had their formats expanded to include additional data. Fiscal data in several reports does not agree with the actual Medicaid disbursements by the State.

MAR users' satisfaction

Washington's report users generally felt the MAR reports provided data not generally available from other sources. They normally used the data without verifying its accuracy and believed the reports' availability saved clerical effort. Many users stated they would be unwilling to do without the data now available in MAR reports.

Michigan report users were less confident about report accuracy but felt the reports were useful. Ohio report users were sometimes critical of the reports' accuracy, especially fiscal data. Two Ohio officials believed that some MAR reports needed to be revised or discontinued. As indicated previously, some changes were being made.

Other MAR issues

MAR, as outlined in the systems design, does not adequately address how well the system is performing. For example, neither Michigan nor Ohio can determine the dollar savings resulting from a specific system's check (edit). Nor could any of the three States show how many claims the State "forced through" the system to obtain payment of rejected claims by bypassing checks normally used in processing claims or the dollar value of forced claims--although developing similar data was included in HEW's General Systems Design. Michigan, at our request, was able to produce such a report. So that a more realistic performance appraisal is available for use by HEW and State managers, MAR could be modified to provide additional measures of performance. For example,

if the savings attributable to each edit were produced, officials could better measure the cost effectiveness of individual edits and whether or not they should be retained in the system.

CONCLUSIONS

Theoretically, the S/UR subsystem could save many program dollars; however, it has not reached a reliable working level and its benefits appear marginal. S/UR needs to be further developed and analyzed to assure that its approach is sound and effective.

RECOMMENDATIONS TO THE SECRETARY, HEW

We recommend that the Secretary, HEW, direct the Administrator, Health Care Financing Administration, to:

--Undertake a demonstration project to determine whether the S/UR subsystem can be further developed and refined so that it is more effective.

--Continue developing and evaluating alternative utilization review systems, such as Utah's PACE program.

CHAPTER 5

INCOMPATIBILITY OF MEDICARE AND MEDICAID INFORMATION SYSTEMS

The Medicaid data base is often incompatible with the mechanized payment systems used by Medicare carriers. This hinders timely and accurate mechanized exchange of payment information for those persons covered by both the Medicare and Medicaid programs. This incompatibility is contrary to Medicaid information system legislation which specifically requires systems to be compatible for prompt eligibility verification and crossover claims.

HEW should, on an interim basis, assist States in resolving conflicts with Medicare claims payment agents concerning the exchange of payment information. The long-term solution lies in adopting uniform identification numbers for eligibles and providers and standard coding systems for procedures, diagnoses, drugs, and medical supplies. HEW should also enforce program regulations which require systems, as a condition of approval, to be compatible with those used in administering Medicare; approved systems should utilize mechanized exchange of payment data.

COORDINATION PROBLEMS

Medicare is the primary program with which Medicaid must be coordinated. For persons with both Medicare and Medicaid coverage, health care providers should first bill Medicare as the primary insurer and request payment of any supplemental Medicaid liability from the Medicaid agency. Generally, for recipients covered by both programs, Medicaid pays the recipient's monthly Medicare premiums and assumes liability for deductible and coinsurance amounts, ordinarily the Medicare beneficiary's responsibility.

To provide timely and accurate exchange of information between the two programs, section 235 of Public Law 92-603 required States' systems to be compatible with systems used in administering Medicare, particularly for prompt eligibility verification and exchange of payment data for persons covered by both programs. HEW's General Systems Design recommends that a computerized file be generated by the Medicare carrier to serve as the method of exchanging payment information between both programs. The file would contain deductibles and coinsurance amounts payable by Medicaid, as well as other identifying data, and would serve as a direct input into the

State's information system. However, because of differences in the data bases of the two programs (that is, different procedure codes, diagnosis codes, and provider and eligible identification numbers), data exchange between the programs has been hindered.

HOW STATES COPE WITH INCONSISTENCIES

Michigan does not use mechanized information exchange between the Medicare and Medicaid programs. Michigan providers must bill all known third parties (Medicare is one) before submitting a bill to the Medicaid program. Only after the provider receives a Medicare payment determination should Medicaid be billed for coinsurance and deductible amounts. This method forces providers to file separate claims with each program and Medicaid cannot verify, without a provider audit, what Medicare actually paid because Medicare paying agents do not tell the State.

Ohio did not receive Medicare payment information through mechanized exchange computer tapes until September 1977. The Medicare carriers sent the State Medicaid agency the hard copy of the Medicare Explanation of Benefits after Medicare paid its share. Ohio entered the data through the manual entry process at considerable expense and in an incomplete manner (for example, diagnosis codes were eliminated).

Washington's contractor (EDSF) receives most claims (nearly 95 percent) via a computer tape from Medicare carriers. This tape is entered and processed through a computerized conversion program which converts Medicare codings to those used by Washington. The converted tape is then processed as a normal claims tape through EDSF's system. EDSF had and continues to have some difficulties in the conversion process--mostly because the two systems lack comparable procedure codes. However, the mechanized claim exchange reduces the necessity of manually entering claims and converting the Medicare coding to those used by Medicaid. Developing a conversion program can be complicated because States have several Medicare paying agents often using different coding schemes. For example, Washington has three Medicare Part B carriers and their procedure codes quite often differ, as illustrated on the following page.

Medicare/Medicaid Treatment
Coding Differences in Washington

Service definition	Procedure Code			
		Medicare Carrier		
	Medicaid	X	Y	Z
Limited service established patient	90005	9005 9620	9025	9008
Brief visit established patient	90040	9004	9024	0994
Brief service new patient	90000	9001	9002	-
Limited service new patient	90010	9000	9003	9001
Intermediate service new patient	90015	9034	9004	-

As shown, building a conversion table is possible but not simple; however, doing this manually when entering claim data can be expensive and introduces a greater possibility for error.

Also, there has been a lack of cooperation between Michigan and the Medicare intermediaries and carriers since Michigan took over the Medicaid claims processing function from Blue Cross/Blue Shield, which is a Medicare carrier and intermediary. Ohio also had problems in obtaining a usable payment tape from the Medicare Part B carrier (Nationwide Insurance Company).

LACK OF MECHANIZED CROSSOVER ADDS TO ADMINISTRATIVE COST

States that do not use mechanized data exchange for dual coverage claims incur additional administrative cost and/or reduce their ability to fully validate billing data.

We estimated that Ohio incurred additional costs of about $76,000 for the 12-month period ended June 30, 1977, to manually enter dual coverage claims. If a computer tape had been available, this data entry cost would have been eliminated and providers would probably have been paid quicker. Ohio has now developed a conversion program and substantial savings should be realized.

As stated earlier, Medicare does not exchange data with Michigan; providers bill the State directly for recovery of any remaining Medicaid liabilities. This method forces

providers to file two claims (dual cost for two bills and entry) and presents greater fraud possibilities since Medicaid cannot verify what Medicare has paid or will pay on the claim.

CONCLUSIONS

Approved information systems should utilize a mechanized means of obtaining Medicare crossover data. A systematic method is needed to verify claims data for dual coverage recipients. Furthermore, conflicts between Medicare claims payment agents and single State agencies involving the exchange of payment data cause providers and/or States to incur additional expenses.

RECOMMENDATIONS TO THE SECRETARY, HEW

We recommend that the Secretary, HEW, direct the Administrator, Health Care Financing Administration, to:

--Develop a uniform identification numbering system for providers and recipients and adopt standard coding systems for medical procedures, diagnoses, drugs, and medical supplies for use by the Medicare and Medicaid programs.

--Provide liaison between States and Medicare carriers to resolve conflicts which preclude free exchange of payment data.

--Enforce the requirement that Medicaid and Medicare information systems be compatible.

CHAPTER 6

SCOPE OF REVIEW

We conducted the review at HEW headquarters, Washington, D.C.; HEW's regional offices in Chicago, Illinois, and Seattle, Washington; and the State Medicaid agencies in Ohio, Michigan, and Washington.

At the State Medicaid agencies, we reviewed claims processing systems, their cost, and the use of S/UR and MAR reports. In Michigan, we also checked the accuracy of State-reported functional costs for processing Medicaid claims.

The review at HEW headquarters was limited to determining the procedures for reviewing information systems and discussing problems related to specific States reviewed.

The work also included a test of the claims processing subsystems in Michigan and Ohio. We selected four invoice types to be processed through the payment system: dental, outpatient hospital, pharmacy, and physician. These four invoice types account for approximately 30 percent of the total Medicaid dollars and 90 percent of total claims volume. We prepared invoices using State manuals and handbooks unique to each invoice type. Further, actual providers and recipients were used for preparing these test invoices. Each test invoice was entered into the State's computer payment system via optical character recognition machines.

STATES WITH CERTIFIED SYSTEMS

State	Effective date of approval
Arkansas	January 1976
California	(a)
Georgia	August 1977
Hawaii	January 1973
Indiana	January 1976
Louisiana	July 1977
Michigan	January 1976
Minnesota	July 1975
Montana	November 1974
New Hampshire	July 1975
New Mexico	June 1973
North Carolina	July 1977
Ohio	October 1975
Oklahoma	January 1973
Texas	b/June 1975
Utah	October 1975
Washington	July 1976

a/California has passed a certification review and is eligible to receive 75 percent Federal sharing for operational funding as soon as it meets the legal mandate to issue explanation of medical benefits to recipients.

b/Texas has only the in-house portion of its system certified. A contractor--EDSF--handles part of the services on an insuring arrangement.

MICHIGAN'S MEDICAID CLAIMS COST BY FUNCTION FOR FISCAL YEAR 1976 (note a)

Function	Equivalent fulltime employees	Function cost (000 omitted)	Michigan's reported cost per claim (note b)	GAO's calculated cost per invoice (note c)
A. Paper Processing				
Invoice processing (document control, suspended claims, technical service)	123	$3,097	$ .063	g/$ .116
Suspended claims (MDPH) (note d)	9	179	.004	g/.307
ADP invoice processing (key tape, optical scanner, hardware, EDP operations)	99	3,552	0072	g/.133
Provider enrollment	5	171	.003	g/.006
Explanation of benefits (postage)	-	375	.007	.014
Subtotal (A)	239	$7,374	$ .149	$ .476
B. Claims Direct Services				
Provider and recipient services	14	$ 420	$ .009	g/$ .016
Cost audit and rate setting	16	388	.008	.015
Investigation unit (excluding nursing homes and hospitals)	30	661	.014	.025
Third party liability	22	491	.010	g/.018
Utilization review (MDPH)	23	689	.014	g/.026
Subtotal (B)	105	$2,669	$ .055	$ .100
C. Claims Indirect Overhead				
Executive direction	-	$ 66	$ .001	$ .002
Accounting operations	-	100	.002	.004
Administrative support services	-	152	.003	.006
Subtotal (C)		$ 318	$ .006	$ .012
D. Administration (DMA) (note e)				
Director and management analysis	17	$ 681	$ .014	$ .026
Subtotal (D)	17	$ 681	$ .014	$ .026

APPENDIX II

Function	Equivalent fulltime employees	Function cost (000 omitted)	Michigan's reported cost per claim (note b)	GAO's calculated cost per invoice (note c)
E. Additional Claims-Related Cost				
Exception unit (BMA)	9	$ 208	$ .004	g/$ .008
Common audit (Blue Cross)		247	.005	.009
Bureau chief and staff (MDPH)	2	41	.001	.002
Policy and planning (MDSS) (note f)	25	743	.015	.027
Utilization review - S/UR (MDPH)	23	689	.014	g/.026
Cost audit and rate setting	16	388	.008	.015
Regulations and review	5	100	.002	.004
Investigation unit (nursing homes and hospitals)	2	40	.001	.002
Dental prior authorization (MDPH)	27	649	.013	g/.024
Nursing home rate setting	10	137	.003	.005
HMO development	6	116	.002	.004
Medical social workers	12	621	.012	.023
ADP - Client eligibility file	64	2,311	.047	g/.087
ADP - MAH	9	352	.007	g/.013
ADP - S/UR	12	438	.009	g/.016
ADP - Federal reporting	4	148	.003	g/.005
Subtotal (E)	226	$7,228	$ .146	$ .270
Total - Claims-Related Cost (Functions A through E)		$18,270	$ .370	$ .684
F. Other Medicaid Cost/ Non-Claims Processing				
Medical review and nursing home evaluation	25	$ 613	-	-
E/SDT administration (note h)	16	398	-	-
Crippled Children administration	25	628	-	-
Licensing and certification	44	1,093	-	-
Utilization review (hospital plans)	5	128	-	-
Michigan Department of State Police	-	244	-	-
Demonstration projects (MDSS)	-	248	-	-
Attorney General		13	-	-
Subtotal (F)		$3,365	$ .068	$ .126

APPENDIX II

Function	Equivalent full time employees	Function cost (000 omitted)	Michigan's reported cost per claim (note b)	GAO's calculated cost per invoice (note c)
G. Other Administrative Cost Not Identified		$47,703	$ .966	$1.790
Total Medicaid Administrative Cost Claimed (Functions A through G)		$69,338	$1.40	$2.60

a/The exhibit was based on actual costs claimed for Federal financial participation during fiscal year 1976 for the activities scheduled. Michigan based similar exhibits for previous years on budgetary appropriations.

b/About 49,394,000 claim lines were processed during fiscal year 1976.

c/About 26,699,000 invoices were processed during fiscal year 1976.

d/Michigan Department of Public Health.

e/Bureau of Medical Assistance, Michigan Department of Social Services.

f/Michigan Department of Social Services.

g/These functions were used to derive an estimated cost for claims more comparable to those available in Ohio and Washington.

h/Early and Periodic Screening, Diagnosis, and Treatment program.

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