United States General Accounting Office

GAO

Report to the Honorable
Daniel K. Inouye, U.S. Senate

May 1993

MEDICAID

Data Improvements Needed to Help Manage Health Care Program

GAO/IMTEC-93-18

GAO

United States
General Accounting Office
Washington, D.C. 20548

Information Management and
Technology Division

B-252374

May 13, 1993

The Honorable Daniel K. Inouye
United States Senate

Dear Senator Inouye:

As you know, Medicaid is a federally aided, state-run medical assistance program serving low-income people. The cost of the program now exceeds $100 billion annually. The Department of Health and Human Services (HHS) and the states rely heavily on automated information systems to manage the program. The data in these systems are important to aiding the Congress and HHS in assessing the program's cost and performance.

In your June 1992 letter to us, you expressed concerns about the quality of data in these systems. Accordingly, you requested that we determine if HHS' Health Care Financing Administration (HCFA) is adequately ensuring that states are reporting quality data from their Medicaid information systems.[1] Details of our objective, scope, and methodology are provided in appendix I.

Results in Brief

Although high-quality data are needed to help manage the Medicaid program and to provide critical input to urgent national health care issues, HCFA has done little to ensure the data's accuracy and completeness. Numerous studies have shown that the data states are reporting from their Medicaid information systems are often inaccurate, inconsistent, and incomplete. HCFA has not fixed these problems because it has not viewed resolution of data deficiencies to be a high priority. As a result, the lack of quality data has made it difficult to determine how well people are being served by Medicaid.

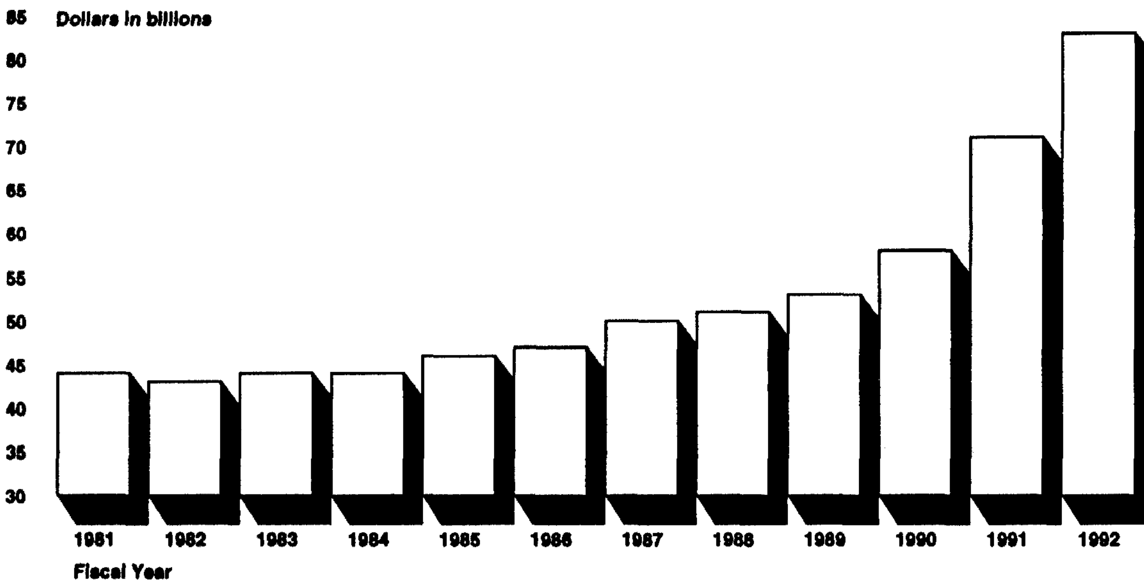
Background

Medicaid, authorized in 1965 under Title XIX of the Social Security Act, is a state-run program that provides medical care to low-income people. At the federal level, HCFA is responsible for establishing policy, developing operating guidelines, and ensuring states' compliance with Medicaid regulations.

[1]According to the American National Standard for Information Systems Dictionary, data quality is defined as the correctness, timeliness, accuracy, completeness, relevance, and accessibility that make data appropriate for use.

The federal government matches states' Medicaid expenditures at rates ranging from 50 to 79 percent for medical benefits, and from 50 to 100 percent for administrative costs. Total federal and state expenditures for Medicaid medical services are rising dramatically. Figure 1 below shows this increase in constant 1987 dollars using the implicit price deflator for the medical component of personal consumption expenditures.

Figure 1: Medicaid Medical Payments for Fiscal Years 1981 to 1992 in Constant 1987 Dollars



During fiscal year 1992, about $116 billion in total Medicaid services was provided to about 31 million people. The federal share of this amount was $67 billion and the states' share was $49 billion.

States Operate Automated Systems to Process Claims and Help Manage the Program

To encourage the development of automated information systems for Medicaid, in 1972 the Congress authorized HCFA to pay (1) 90 percent of states' costs to design, develop, and install mechanized claims processing and information retrieval systems; and (2) 75 percent of states' costs to operate these systems. These automated systems, known as Medicaid Management Information Systems (MMIS), are used by states to process

claims and to capture and report the data HCFA and the states need to administer the program. HCFA requires each state's MMIS to include 122 standard data elements. In fiscal year 1992 HCFA paid the states about $441 million to help operate the systems.

Title XIX of the Social Security Act gives the Secretary of HHS broad authority to require states to report data that HCFA needs to administer the Medicaid program. According to the act, a state plan must "provide that the State agency will make such reports, in such form and containing such information, as the Secretary may from time to time require, and comply with such provisions as the Secretary may from time to time find necessary to assure the correctness and verification of such reports."

To implement this authority, HCFA requires states to report Medicaid cost and programmatic information, based on data from their MMISs, via three key reports. First, states submit a quarterly report known as the HCFA-37, or Medicaid Program Budget Report, which is used by HCFA as the basis for providing federal Medicaid funds to the states. For this report, states are required to estimate annual and quarterly Medicaid expenditures for the current and subsequent federal fiscal year.

Second, states are required to submit a quarterly report, called the HCFA-64 or Quarterly Medicaid Statement of Expenditures for the Medical Assistance Program, to report actual Medicaid expenditures. HCFA uses this information to determine whether a state's expenditures were in accordance with applicable laws and regulations, and to reconcile reported actual expenditures against prior federal payments.

Third, HCFA requires states to submit a statistical report known as the HCFA-2082 or Statistical Report on Medical Care Eligibles, Recipients, Payments, and Services, which provides descriptive data on Medicaid expenditures and utilization. To comply with this requirement, states have the option of either submitting annual summary reports on paper or sending quarterly magnetic tapes containing more detailed individual claims and eligibility data. The magnetic tapes include 28 required data elements as well as 27 data elements that states have the option of submitting. Both the required and optional data elements are included within the 122 data elements that states' MMISs are required to contain. Appendix II provides a listing of these required and optional data elements.

HCFA relies extensively on the 2082 data submitted by states to

- respond to external requests on wide-ranging programmatic aspects of Medicaid,[2] such as the number of recipients who obtain prescription drugs;
- estimate the costs of periodic congressional proposals to expand Medicaid benefits; and
- prepare future budget estimates for the Medicaid program.

Studies Have Shown That Medicaid Data Are Often Inaccurate and Incomplete

Since 1987 several reports and studies have identified serious problems with the quality of Medicaid data. For instance, a 1987 HCFA study noted that many agency personnel did not believe the data states were submitting on the HCFA-2082 reports were accurate. A 1990 HCFA report stated that the uncertain quality of Medicaid data was a continuing problem, and a 1992 HCFA internal study further reiterated that the data were of poor quality.

Studies have also pointed out that data submitted by states are inconsistent. A 1991 contractor study found that many states were submitting data that were inconsistent with information from other federal reports. For example, according to the study, the fiscal year 1990 HCFA-2082 report for Hawaii reported fewer than 200 enrollees that were either aged or disabled, while data from the Social Security Administration showed that Hawaii averaged about 5,500 aged and 7,800 disabled enrollees in 1990. The 1991 contractor study also noted that data were inconsistent from year to year. For example, according to the study, Delaware's 2082 data for 1990 reported 79 percent fewer adults receiving assistance than what was reported in 1989, while showing a 28 percent increase in children.

The 1987 HCFA study also pointed out that the reported cost of Medicaid was different on states' HCFA-64 reports and HCFA-2082 reports. For instance, in fiscal year 1987, states' HCFA-64 reports identified the total cost of Medicaid medical assistance payments to be about $48 billion, but the HCFA-2082 reports showed the costs to be about $45 billion, or $3 billion less. Over the last 5 years, the discrepancy between these two reports has worsened—the states' fiscal year 1991 HCFA-64 reports totaled about $90 billion, while the fiscal year 1991 HCFA-2082 reports were about $77 billion, or $13 billion less. Officials from several states we contacted said that they were not aware of these differences.

[2] During fiscal year 1992, about 1,150 external requests were received by HCFA, including 48 from congressional committees and members.

While HCFA officials could not provide documentation explaining the discrepancy between the two reports, they said the difference is due to lump sum payments to hospitals, known as disproportionate share payments, for the treatment of indigent patients who were not covered by health insurance. According to HCFA's written comments on a draft of this report, these lump sum payments are not shown in the HCFA-2082 reports because they are not payments directly related to recipients. Therefore, the total amount of costs shown in the 2082 reports is less than that shown in the HCFA-64 reports. In some cases, however, certain medical service categories have higher dollar amounts in the 2082 reports than in the HCFA-64 reports. For example, the HCFA-64 reports present only about $1 billion in home health services while the HCFA-2082 reports show about $4 billion for these services. HCFA officials could not explain why these differences existed.

Along with these accuracy and consistency problems, the data HCFA obtains from the states are also not always sufficiently detailed or complete to allow meaningful analyses, according to agency researchers and studies. During fiscal year 1992, 27 states submitted their 2082 data using the annual summary report format rather than via magnetic tape. Because these paper reports only provide summary information, information on the required and optional data elements (listed in app. II) was not available for these states. These states accounted for about 68 percent of total Medicaid expenditures during fiscal year 1992.

During fiscal year 1992, 23 states submitted their 2082 data quarterly via magnetic tapes. However, not all of these states submitted the optional data elements. According to HCFA researchers and a 1992 internal HCFA study, both the required and optional data elements are needed from all states in order to perform constructive and predictive nationwide analyses of the Medicaid program.

HCFA officials stated they have not required all states to supply the data elements because they do not want to impose additional reporting requirements. However, all of these data elements already reside in each state's MMIS. Without these data, thorough and supportable analyses of the program will continue to be difficult.

Lack of Quality Data Prevents Sound Analyses of the Medicaid Program

HCFA's lack of quality Medicaid data has contributed to budget estimates that have substantially underestimated the cost of the Medicaid program, and has resulted in the inability to provide comprehensive information on Medicaid issues. A 1991 joint HHS and Office of Management and Budget task force identified the poor quality of Medicaid data as a major cause of the federal budget underestimating the actual cost of the Medicaid program. During fiscal year 1991, this underestimation was about $8 billion.[3] A 1992 internal HCFA study also stated that the gathering of reliable Medicaid data is urgent in order to evaluate proposals and their costs on reforming delivery of health care.

The lack of complete and accurate HCFA-2082 data has also resulted in HCFA's inability to provide comprehensive information on emerging Medicaid and health care issues. For example, HHS' Centers for Disease Control recently requested national information on the number of Tuberculosis and AIDS patients served by the states' Medicaid program. HCFA, however, could only provide information on 21 states' Medicaid programs due to the lack of complete data.

According to HCFA research personnel, the absence of comprehensive data has also resulted in HCFA not being able to provide information on the number of pregnant women and newborn babies covered under the Medicaid program. Improving and increasing medical services to low-income pregnant women and children has been the focus of numerous legislative changes to Medicaid. Without complete and reliable data, however, HCFA has been unable to identify the extent to which these program changes are accomplishing their objectives. A 1990 HCFA report also noted that more reliable data are needed to evaluate efforts to address issues, such as AIDS and infant mortality. At the conclusion of our review, HCFA research personnel added that the lack of quality data has made it difficult for the agency to determine if people are obtaining appropriate and adequate medical services under the Medicaid program.

[3]The President's fiscal year 1991 budget estimated the federal cost of the Medicaid program to be about $45 billion, whereas actual federal costs were about $53 billion.

HCFA Is Not Taking Needed Action to Improve Programmatic Data Quality

Because agency officials have not made resolution of widespread programmatic data problems a priority, HCFA has not yet adequately acted to resolve them. Specifically, HCFA (1) does not sufficiently review the quality of states' data, and (2) has not told states that the data being supplied are often inaccurate and incomplete.

Up until 1987 HCFA had an organizational component dedicated to assessing the quality of HCFA-2082 data. This branch worked several years with the states to identify data reporting errors and processing problems. According to a June 1992 internal HCFA proposal to address data problems, this function did more to improve HCFA-2082 data quality than any other review performed in the last decade. However, a reorganization of HCFA in 1987 eliminated this function for Medicaid data. According to a HCFA systems analyst, HCFA did not consider this to be a high-priority function and therefore discontinued it.

HCFA's review of data is now primarily limited to using agency-established error tolerance standards for those states who submit their HCFA-2082 data via magnetic tapes. HCFA does not use any error tolerance standards for states who submit data via annual paper reports. Furthermore, the error tolerances for states submitting magnetic tapes can vary dramatically from state to state. For example, the error tolerance for the race ethnicity data element ranges from 3 percent to 100 percent for various states. In this case, if a state had a 100 percent tolerance, it could leave this data element blank for all of its records and HCFA would still consider the tape to be acceptable.

Pursuant to legislative mandate, HCFA does perform reviews of states' MMISs.[4] However, these reviews do not include procedures to determine if a state's MMIS contains complete and accurate data.

HCFA has also not told the states that the Medicaid data they submit are often inaccurate, inconsistent, and incomplete. According to officials from each of the 12 states we contacted, HCFA had not informed them of any quality problems with their 2082 data. According to the Director of the Medicaid Statistics Division, HCFA has not exercised its legal authority to require states to submit needed data because they believe this would infringe on states' rights. Accordingly, states are not penalized if they do not report complete and accurate information.

[4] The Social Security Act requires HCFA to review a state's MMIS at least once every 3 years to ensure the system is meeting HCFA's prescribed functional requirements, such as paying 90 percent of error-free claims within 30 days of receipt. If a state fails the review, HCFA can reduce the state's federal funding to operate its MMIS by 10 percent annually.

HCFA Acknowledges Data Quality Problems

HCFA has recognized its data problems. In December 1991, the Secretary of HHS identified in his Federal Managers' Financial Integrity Act report that the lack of accurate Medicaid programmatic and financial data constituted a high-risk area. In response to the Secretary's report, HCFA took steps to improve the HCFA-37 state budget reports and the Medicaid budget estimating process.

HCFA, however, has not yet implemented sufficient actions to improve programmatic data. In June 1992, HCFA developed an internal proposal to address these data problems. According to the proposal, a comprehensive national Medicaid database is needed in order to address current and emerging health care issues, such as

- explaining and containing the rising cost of health care in the Medicaid program,
- evaluating current and future proposals for national health care reform, and
- responding to Medicaid and health care issues of interest to the Congress.

The proposal also noted that since major initiatives and decisions would be evaluated using the national Medicaid database, erroneous data could cost the public in terms of money and medical care many times the cost of obtaining accurate data.

To address longstanding data deficiencies, the proposal recommended defining the data elements needed from the states, creating a HCFA organization responsible for ensuring data quality, and providing feedback to states on the quality of their data. These are all key factors in fixing the data problems. The proposal, however, did not address how HCFA would enforce state reporting of the required data elements.

At the conclusion of our review, HCFA officials indicated that it would be 3 to 4 months before the new Administration would address the June 1992 proposal. In its subsequent written comments on a draft of this report (see app. III), HCFA stated that some activities included in the proposal, such as addressing the validity and comprehensiveness of data, were now beginning to be implemented.

Conclusions

Unreliable and incomplete data continue to plague the Medicaid program. However, HCFA has not viewed resolution of these data deficiencies as a high priority. As a result, although the agency has prepared a proposal that

could help remedy many of the data deficiencies, it has not fully implemented this proposal. Without stronger federal leadership, critical data reliability shortcomings will continue to be unresolved, and the Congress will not possess sound data to help make upcoming decisions on national health issues.

Recommendations to the Administrator of HCFA

We recommend that the Administrator

- identify the Medicaid data elements needed from the states to meet the nation's information needs and require the states to supply these data elements;
- develop sound data quality standards and implement a regular review of data quality as part of the systems performance review process; and
- inform states of data deficiencies and enforce corrective actions to improve data quality.

Agency Comments and Our Evaluation

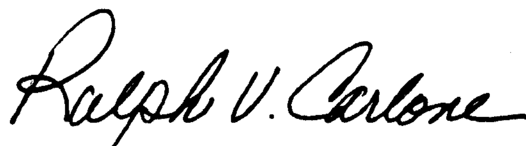
In commenting on a draft of this report, HCFA agreed with our recommendations and stated that the facts presented were correct. However, it noted that the tone of the report was quite negative and that HCFA has been working to address our recommendations. HCFA's comments are reprinted in appendix III.

Regarding the tone of the report and HCFA's actions to improve data quality, we point out in the report that the agency has recognized its data quality problems and that it developed an internal proposal in June 1992 to address these problems. However, we also note that HCFA has not taken any action to correct these problems, even though it had been aware of them since 1987. We commend HCFA's commitment, as stated in its written comments, to begin implementing both the June 1992 proposal and our recommendations.

We conducted our review between August 1992 and February 1993, in accordance with generally accepted government auditing standards. We are sending copies of this report to the Secretary of Health and Human Services; the Administrator of HCFA; the Director, Office of Management and Budget; and interested congressional committees. Copies will also be made available to others upon request.

This report was prepared under the direction of Frank Reilly, Director, Human Resources Information Systems, who can be reached at (202) 512-6408. Other major contributors are listed in appendix IV.

Sincerely yours,



Ralph V. Carlone
Assistant Comptroller General

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Abbreviations

GAO	General Accounting Office
HHS	Department of Health and Human Services
HCFA	Health Care Financing Administration
IMTEC	Information Management and Technology Division
MMIS	Medicaid Management Information System

Objective, Scope, and Methodology

At the request of Senator Daniel K. Inouye, we reviewed HCFA's management of the quality of Medicaid data. Our specific objective was to determine if HCFA is adequately ensuring that states are reporting quality data from their Medicaid information systems.

To accomplish our objective, we reviewed federal laws and regulations pertaining to Medicaid, and HCFA's guidelines and procedures for state reporting of Medicaid data. We also analyzed agency and contractor studies and correspondence on the quality of states' Medicaid data. In addition, we analyzed HCFA error reports on states' Medicaid data, and reviewed HCFA's draft proposal to improve and enhance its national Medicaid database. We discussed the quality of Medicaid data with officials from HCFA's Medicaid Bureau, Bureau of Data Management and Strategy, Office of Research and Demonstrations, Office of the Actuary, Office of Budget and Administration, and Office of Legislation and Policy. We performed this work at HCFA headquarters in Woodlawn, Maryland; and at HCFA regional offices in Kansas City, Missouri; and Philadelphia, Pennsylvania.

To identify if HCFA had told states of data quality problems, we contacted officials from the ten states with the largest Medicaid expenditures: California, Florida, Illinois, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, and Texas. We also visited a state with moderate Medicaid expenditures—Missouri—and one with smaller expenditures—Nebraska.

The views of HCFA officials, including the Director of the Division of Program Performance, were sought during the course of our work and their comments have been incorporated where appropriate. In addition, we obtained comments from HCFA on a draft of this report. These comments are presented and evaluated in our report.

Listing of Required and Optional Data Elements Submitted by States Via Magnetic Tape

Required Data Elements

Identification Number - Claims
Identification Number - Eligibility
Date of Birth
Sex Code
Race Ethnicity Code
Social Security Number
Type of Record
Federal Fiscal Year Quarter
Days of Eligibility
Maintenance Assistance Status
Basis of Eligibility
Health Maintenance Organization Enrollment
Type of Claim
Type of Coverage
Type of Service
Beginning Date of Service
Ending Date of Service
Medicare Deductible Payment
Medicare Coinsurance Payment
Medicaid Amount Paid
Date of Payment Adjudication
Medicaid Covered Inpatient Days
Skilled Care Days
Intermediate Care Days
State-specific Service Code
State-specific Service Code Modifier
Quantity of Service
State-specific Service Code Flag

Optional Data Elements

Date of Death
County Code
ZIP code
Dual Eligibility Flag
State-specific Eligibility Group
Health Insurance
Early and Periodic Screening, Diagnosis, and Treatment Flag
Place of Service
Amount Charged
Other Third Party Payment
Date Claim Received
Provider Identification Number

Admission Date
Discharge Status
Primary Diagnosis Code
Secondary Diagnosis Code
State-specific Principal Procedure Code
Principal Procedure Category
Principal Procedure Date
Accommodation Charges
Leave Days
Drug Code
State-specific Principal Procedure Code Flag
State-specific Principal Procedure Code Modifier
State-specific Secondary Procedure Code
State-specific Secondary Procedure Code Flag
State-specific Secondary Procedure Code Modifier

Comments From the Health Care Financing Administration

DEPARTMENT OF HEALTH & HUMAN SERVICES

Health Care
Financing Administration

Memorandum

Date APR 13 1993

From William Toby, Jr.
Acting Administrator

Subject General Accounting Office (GAO) Draft Report, "Medicaid: Data Improvements Needed to Help Manage Health Care Program" -- INFORMATION

To Ralph V. Carlone
Assistant Comptroller General
General Accounting Office

I am responding to your request for the Health Care Financing Administration's (HCFA's) comments on your draft report concerning the need for data improvements in the Medicaid program. You report, and we agree, that high quality data are needed to help manage the Medicaid program and to provide critical input to urgent national health care issues. However, you conclude that unreliable and incomplete data continue to plague the Medicaid program. As a result, you recommend that HCFA: identify the Medicaid data elements needed from the States to meet the nation's information needs and require the States to supply these data elements; develop sound data quality standards and implement a regular review of data quality as part of the Systems Performance Review (SPR) process; and, inform States of data deficiencies and enforce corrective actions to improve data quality.

We agree with GAO's recommendations. While the facts presented are correct, the tone of the report is quite negative and implies that HCFA is doing nothing in this area. In fact, HCFA has been addressing this concern in recent years and has been working to address GAO's recommendations.

Over the past 18 months, HCFA has been working to ascertain what additional Medicaid data are required to address programmatic and research needs and ways to improve existing data collection efforts. The result of these activities is a proposal to increase the number of States that submit claims and eligibility data, require additional data elements from States to supplement the currently submitted data, and to improve the quality of the data submitted by States. We should emphasize that virtually all data elements, including those considered "optional", are now being reported by all Medicaid Statistical Information System (MSIS) States. HCFA has been working very closely with MSIS States to improve the quality of their submissions.

Page 2 - Mr. Ralph V. Carlone

Several recent activities in HCFA are addressing all these concerns. Although HCFA is not mandating that all States submit MSIS data at this time, we are currently expanding the number of States that participate in MSIS. Particular emphasis will be given to large Medicaid population States that are not currently in MSIS that wish to voluntarily submit the data.

A second major activity that is underway is the formation of three workgroups to address MSIS data quality. We have formed workgroups to address coding of eligibility data, coding of service data, and the validity and comprehensiveness of all MSIS data submitted to HCFA. These workgroups are developing specific recommendations and a plan to implement the most important recommendations in a timely manner.

In addition, HCFA is implementing a Medicaid Data Quality committee to address the quality of Medicaid information collected by all HCFA components. This committee will utilize methods and procedures for improving quality that have been developed by a similar Medicare Data Quality committee over the past several years.

We would also offer the following technical comments for your consideration.

1. We suggest replacing the last sentence in the first full paragraph on page 6 ("For this report, States are . . .") with the following:

   "For this report, States are required to estimate annual and quarterly Medicaid expenditures for a 2-year period consisting of the current and subsequent Federal fiscal year."

2. The HCFA-64 form is mentioned in discussions on page 9 of the report. The HCFA-64, which is the responsibility of the Medicaid Bureau (MB), identifies actual payments made by the States. It is an accurate account of total Medicaid expenditures and includes disproportionate share payments. The HCFA-2082, which is the responsibility of the Bureau of Data Management and Strategy (BDMS), reflects vendor payments made for recipients. By definition this does not include disproportionate share payments which are not vendor payments directly related to recipients. MB will be pleased to highlight for GAO where the expenditures are reflected on the HCFA-64. BDMS can provide a complete explanation of what the HCFA-2082 captures.

Should you have any questions or require any additional information, kindly contact Ron Miller of the Executive Secretariat at (410) 966-5237.

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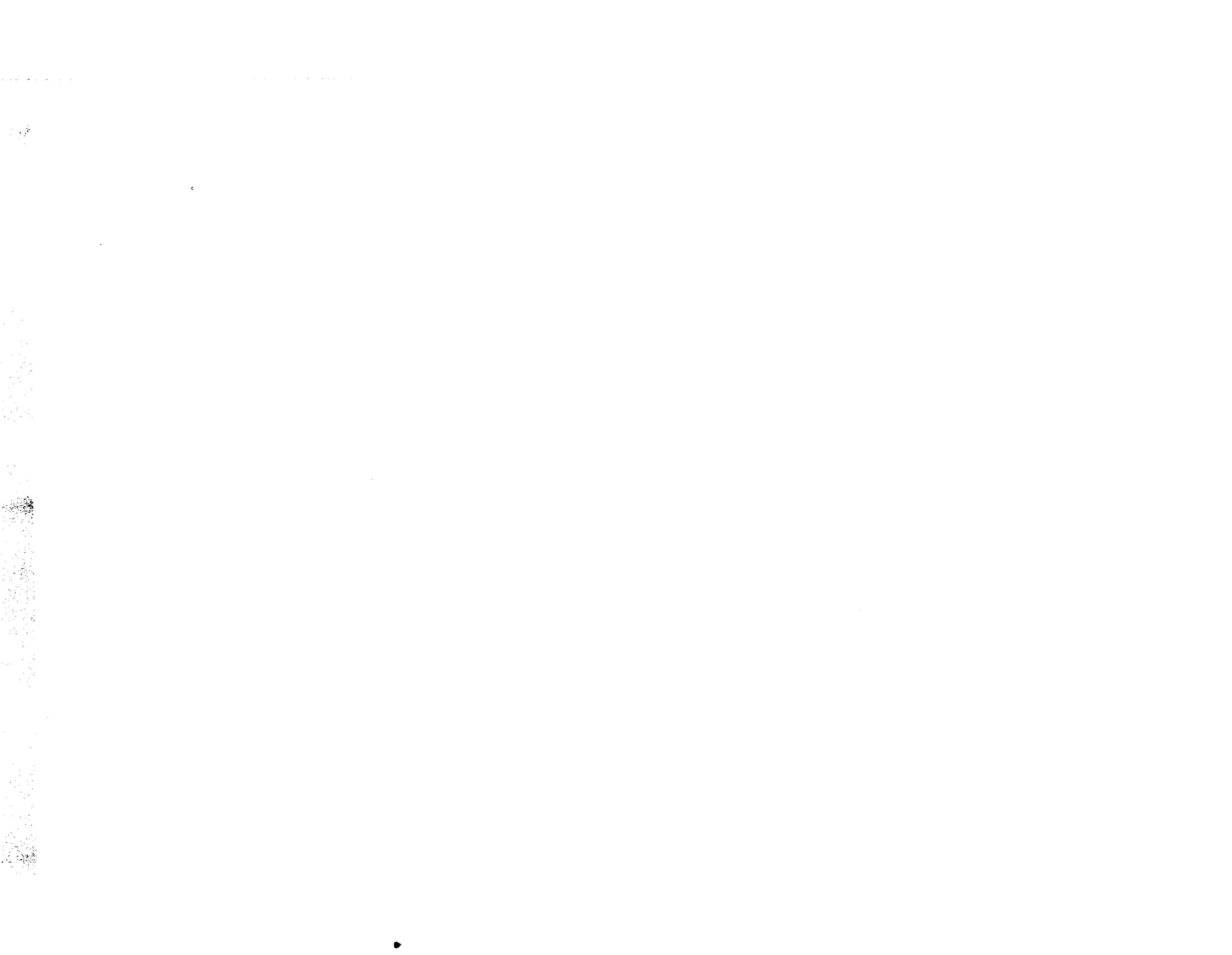

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