COMPUTER SERVICES MARKETS IN GOVERNMENT FUNDED HEALTH INSURANCE

ABOUT INPUT

THE COMPANY

INPUT provides planning information, analysis, and recommendations to managers and executives in the information processing industries. Through market research, technology forecasting, and competitive analysis, INPUT supports client management in making informed decisions. Continuing services are provided to users and vendors of computers, communications, and office products and services.

The company carries out continuous and in-depth research. Working closely with clients on important
members analyze and
data, then develop
innovative ideas to
Clients receive r
access to data on wh
and continuous consu

Many of INPUT's pro
have nearly 20 yec
areas of specializa
senior management
marketing, or plar
enables INPUT to su
to complex business

Formed in 1974,
leading internatio
Clients include ov
largest and most
companies.

UNITED STATES, West Coast
2471 East Bayshore Road
Suite 600
Palo Alto, California 94303
(415) 493-1600
Telex 171407

UNITED STATES, East Coast
Park 80 Plaza West-1
Saddle Brook, New Jersey 07662
(201) 368-9471

UNITED KINGDOM
INPUT Europe
Airwork House (4th Floor)
35 Piccadilly

ice Company, Ltd.
No. 12-7 Kita Aoyama
U

-9 Merriwa Street
on N.S.W. 2072

COMPUTER SERVICES MARKETS IN GOVERNMENT FUNDED HEALTH INSURANCE

INDUSTRY REPORT #21

NOVEMBER 1979

COMPUTER SERVICES MARKETS IN GOVERNMENT FUNDED HEALTH INSURANCE

TABLE OF CONTENTS

COMPUTER SERVICES MARKETS IN GOVERNMENT FUNDED HEALTH INSURANCE

LIST OF EXHIBITS

I INTRODUCTION

- This report is produced by INPUT as part of the Market Analysis Service (MAS), and analyzes computer services markets in government funded health insurance.

- This topic was selected because of client interest in the insurance sector, the fifth largest computer services market area.

- The purpose of this study is to analyze both present and future markets and to provide basic technical background and recommendations for both market entry and expansion.

- Before research in the insurance sector began, interested INPUT clients were contacted for specific areas of interest.

- Selected vendor interviews were conducted in October 1979.

- The research conducted in this report revises and expands the research listed in Appendix A. Principal reference sources are listed in Appendix B.

- Definition of terms used in this report appear in Appendix C.

- The forecasts included in this report include a 6% factor for inflation. The difference between 6% and the annual increase in the Consumer Price Index (CPI) is assumed to be offset by technology.

- Inquiries and comments on the information presented in this report are invited from clients.

II EXECUTIVE SUMMARY

II EXECUTIVE SUMMARY

A. COMPUTER SERVICES MARKETS IN GOVERNMENT FUNDED HEALTH INSURANCE

1. SCOPE OF THE STUDY

- This report is meant to amplify and support the insurance sector analysis presented in INPUT's "Computer Services Industry 1978 and 1979 Annual Reports."

- The insurance sector has been directed into four subsectors:

  - Life/Health Insurance.
  - Property/Casualty Insurance.
  - Government Funded Health Insurance.
  - Insurance Agents and Brokers.

- The types of firms included in each subsector according to their Standard Industrial Classification (SIC) designation are shown in Appendix D.

- A prior report, "Computer Services Markets in Insurance Companies" (see Appendix A), covered the first two subsectors, Life/Health and Property/Casualty Insurance.

- This report covers only the computer services markets in government funded health insurance subsector.

- A future report will cover the insurance agents and brokers subsector.

2. MARKET STRUCTURE

- Total health care expenditures (over $160 billion in 1977 - nearly 9% of GNP) are rising at a rate (13% AAGR) faster than the consumer price index (CPI).

- Personal health care expenditures (95% of the total) is currently over 40% government (federal, state, and local) funded.

- Federal expenditures for personal health care ($43 billion in 1977 have risen from just over 7% of the total federal budget in 1970 to nearly 11% currently.

- The major portion (74% or $32 billion) of the total 1977 federal personal health care budget was disbursed through three government funded health insurance plans:

  - Medicare.

  - Medicaid.

  - CHAMPUS.

- Medicaid is technically a social welfare program, but is so closely allied to health insurance (in fact, at times Medicaid is "underwritten") that it is considered as "health insurance."

- Medicaid, guided by The Health Care Financing Administration (HCFA), HEW, is administered through individual states which either administer the plan directly (invariably with help from computer software products and professional services vendors), or contract part or all of the program administration to Blue Cross/Blue Shield plans, commercial insurance companies, and increasingly, to computer services vendors. Computer services vendors also participate as subcontractors primarily through facilities management (FM) arrangements.

- Medicaid costs are shared between the federal, state, and local governments.

  - Federal reimbursement varies between 50% and 83%.

  - The Federal Government provided over $12 billion of the nearly $20 billion total 1978 Medicaid costs.

- Medicaid expenditures are growing at 18% annually, 3 times the rate of the number of recipients. These were 25 million recipients in 1978.

- Medicare, directly administered by the Federal Government (Health Care Financing Administration, HEW) through contractors, primarily Blue Cross/Blue Shield plans and commercial insurance companies, has two components.

  - Hospitalization coverage (Part A of Medicare) is administered by Blue Cross plans and insurance companies. More manual than EDP processing is involved. Computer services vendor involvement is low.

  - Physician Care (Part B) is administered by Blue Shield plans and insurance companies. The data processing component is significant. Computer services vendors are frequently involved, primarily on an FM basis.

- Medicare expenditures ($26 billion in 1978 with over a 19% AAGR) are growing at a much higher rate than the total enrollment (3% AAGR) of nearly 27 million, or about 12% of the total U.S. population.

- The Department of Defense administers the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) through contractors, primarily Blue Cross/Blue Shield plans.

  - Computer services vendor involvement is currently limited to subcontract EDP processing of CHAMPUS claims. Formerly, they were involved as prime contractors.

- National Health Insurance (NHI) is the major issue influencing the marketplace. Because of the difficulty of implementation in an economy that is both inflationary and recessionary, NHI is still considered to be at least five years from inaugeration. The two major bills under congressional consideration both make major use of the private sector in underwriting and administering the ultimate plan.

  - Implementation of any NHI plan will drastically revise Medicaid.

- The lead time and development cost to prepare for NHI are so great that insurance companies and computer services vendors are already positioning themselves in anticipation of NHI processing.

- In preparation for NHI, HCFA and DOD are improving Medicare, Medicaid, and CHAMPUS claims administration. Efforts, including consideration of using single contractors for larger states, regionilization for smaller states, and making procurements openly competitive, give computer services vendors new opportunities to win significant claims administration contracts, as witnessed by a number of new contract awards; e.g:

  - Computer Sciences Corporation for California Medicaid.

  - Bradford National Corporation for New York Medicaid.

- Electronic Data Systems for Illinois Part B Medicare.

3. MARKET FORECAST

- As shown in Exhibit II-1, computer services expenditures (over $375 million in 1978) will increase to nearly $840 million in 1984.

- CHAMPUS is a small (2%) and limited market segment.

- Although Medicaid and Medicare market segments are nearly equal now, Medicaid with a 16% AAGR is forecast to become the major (52%) market segment by 1984.

- Improvement in computer systems utilization through the use of on-line systems for data entry, inquiry, and data base management has held total computer services growth (14% AAGR) below Medicare and Medicaid program cost growth.

- The forecast assumes that NHI will not greatly impact the marketplace within the next five years. By shifting $116 billion from the private to the public sector, and adding an additional $29 billion in federal expenditures by 1983, NHI could more than double the government funded health insurance subsector.

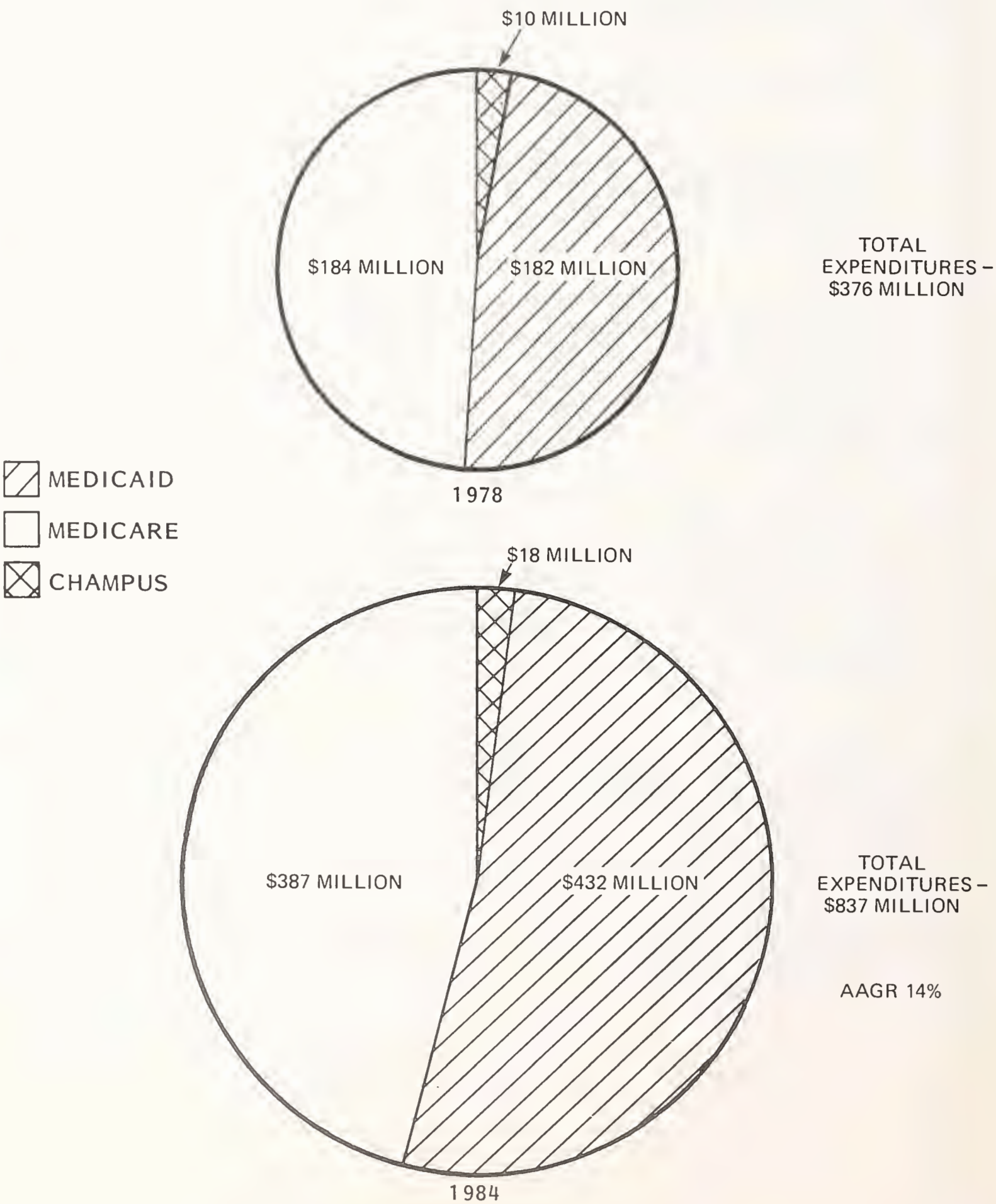
- Processing services for the market are entirely "industry specialty" and the delivery mode is predominately facilities management.

  - FM constitutes 88% of the total market.

- RCS through on-line services, though small ($15 million), is growing most rapidly (25% AAGR).

EXHIBIT II-1

FORECAST OF GOVERNMENT FUNDED HEALTH INSURANCE EXPENDITURES FOR COMPUTER SERVICES, 1978-1984

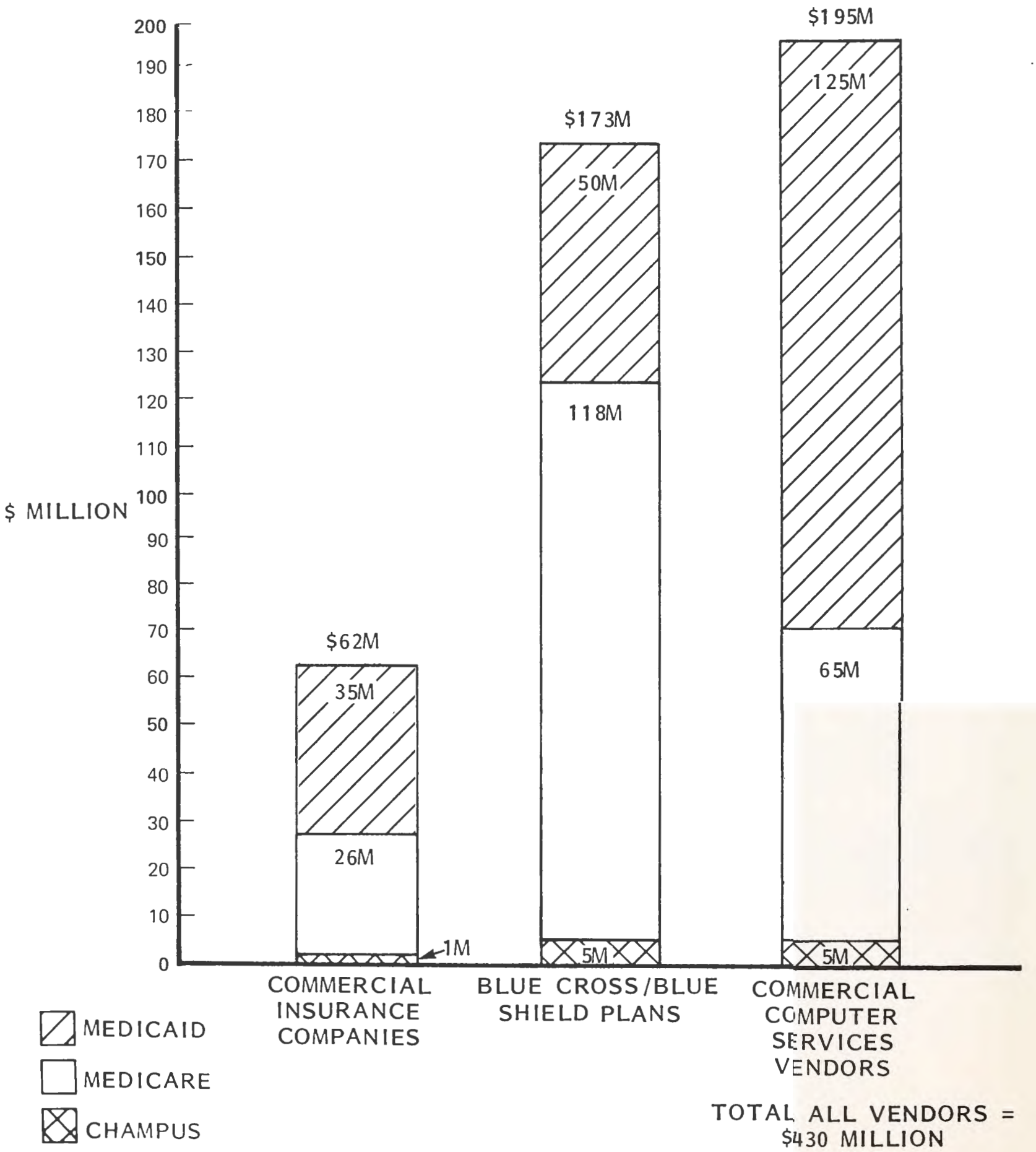


4. COMPETITIVE STRUCTURE

- Over 100 vendors serve this specialized marketplace.
  - Eighty Blue Cross/Blue Shield and prepaid health plans.
  - Fifteen insurance companies.
  - Twenty commerical computer services vendors.
- Among vendor types, market share is divided with:
  - Blue Cross/Blue Shield plans holding a decreasing 40% of the market.
  - Commercial insurance companies holding a decreasing 14% share.
  - Commerical computer services vendors having an increasing 46% market share.
- As shown in Exhibit II-2, Blue Cross/Blue Shield plans currently dominate (56%) the Medicare market segment, whereas commercial computer services vendors control the major portion (60%) of the more rapidly growing Medicaid segment.
- With 1979 government funded health insurance revenues of $112 million, EDS dominates (57%) the commercial computer services vendors market share.
- EDS is successfully competing with Blue Cross/Blue Shield plans as a fiscal agent/intermediary.
  - EDS has become the administrator for Medicare Part B for Illinois.

EXHIBIT II-2

VENDOR SHARE OF COMPUTER SERVICES REVENUES FOR THE GOVERNMENT FUNDED HEALTH INSURANCE MARKET IN 1979



TOTAL ALL VENDORS = $430 MILLION

- EDS formed National Heritage Insurance Company, and became the underwriter and administrator of Medicaid for Texas.

- Other large commercial computer services vendors have recently successfully penetrated the market.

  - Bradford National Corporation is the Medicaid fiscal intermediary for New York City and fiscal agent for the remainder of New York State.

  - Computer Sciences Corporation (CSC) is the Medicaid fiscal intermediary for all of California.

- Other commercial computer services vendors of significance are:

  - System Development Corporation (SDC) as Medicaid fiscal agent for Florida.

  - The Computer Company (TCC) as fiscal agent for Virginia, and specialist in Medicaid Management Information Systems (MMIS) development.

  - Optimum Systems, Inc. (OSI) as Medicare Part B processor and Medicaid PSRO processor.

B. RECOMMENDATIONS

- The government funded health insurance market is a specialized field. Entry is very costly, but growth potential is high for the right combination of data management and technical expertise.

- The key variables for decision making are:

  - When will NHI impact the marketplace?

  - What will be the best method of participation in NHI?

- Prudent vendors will closely monitor evolving plans and programs of HFCA as well as congressional activity on NHI.

- Take the subcontract route for initial market entry. Explore joint venture relationships with Blue Cross/Blue Shield plans and insurance companies as a first avenue of approach.

- Obtain technical expertise through acquisition of specialized software and processing vendors.

- Large RCS vendors should consider forming or acquiring an insurance company to bid as combined underwriter and prime fiscal agent/intermediary.

III MARKET ANALYSIS AND FORECAST

III MARKET ANALYSIS AND FORECAST

A. MARKET STRUCTURE

1. OVERVIEW

- In 1977 total expenditures for health care in the U.S. were nearly 9% of the Gross National Product (GNP).

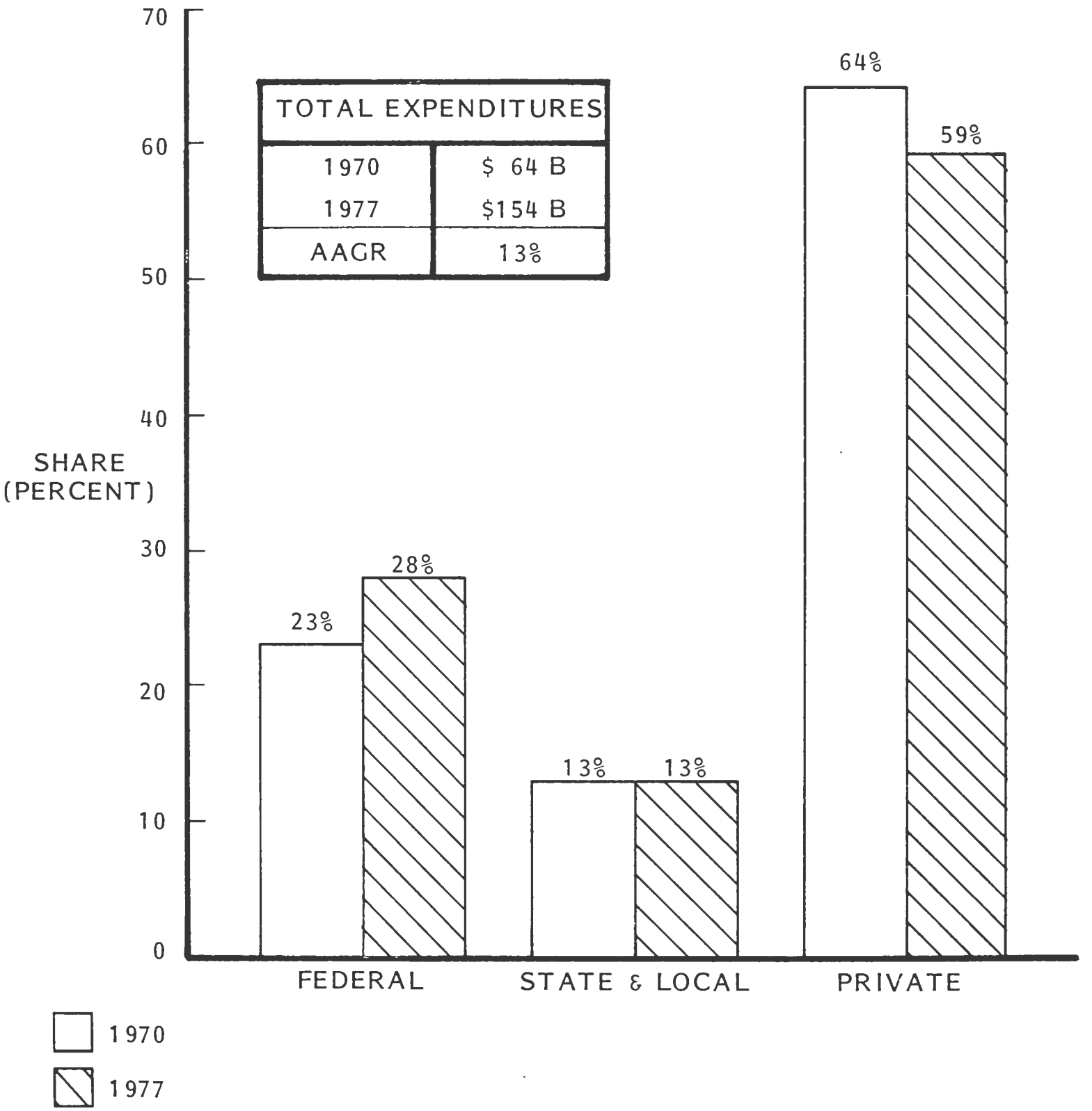
- Total expenditures (nearly $163 billion) have been growing at a 13% AAGR over the past seven years, rising faster than the Consumer Price Index (CPI).

- The major portion (95%) of total health care expenditures was for personal health services including supplies and administration. Governments funded over 40% of nearly $154 billion in personal health expenditures. The remainder came from the private sector including payments by consumers and third parties such as Blue Cross/Blue Shield plans and commercial insurance companies.

- As shown in Exhibit III-1, in 1977 the Federal Government provided 28% or nearly $43 billion of total expenditures for personal health care.

EXHIBIT III-1

GOVERNMENT AND PRIVATE SECTOR SHARE OF
PERSONAL HEALTH CARE EXPENDITURES, 1970-1977



- The portion funded by the Federal Government is slowly rising at the expense of the private sector, due in part to increased individual FICA deductions, an increase in the population eligible for Social Security, and an extension of welfare recipient eligibility.

- Federal personal health care expenditures ($14.5 billion in 1970 or 7.4% of the total federal budget) have risen to nearly $43 billionn or 10.6% in 1977.

- Government funded health insurance encompasses three major programs:

  - Medicare.

  - Medicaid.

  - CHAMPUS.

- Medicare was administered by the Social Security Administration (SSA). In 1977 responsibility for Medicare was transferred to the Health Care Financing Administration (HCFA), Department of Health, Education, and Welfare (HEW). Medicare is primarily for retired persons.

- Medicaid, also administered by HCFA, is really a social welfare program, but is so closely allied to health care administration systems that it is included here. The major portion of Medicaid expenditures is financed by the Federal Government and supplemented by individual state health expenditures.

- CHAMPUS, the Civilian Health and Medical Program for the Uniformed Services, is administered by the Department of Defense and covers military dependents and retired military personnel.

- In 1977 federal expenditures for Medicare and Medicaid approached $32 billion or 74% of the total federal budget for personal health care.

- As shown in Exhibit III-2, the major portion (72%) of Medicare payments are for hospital care, whereas the major portion of Medicaid expenditures are divided between hospital care (35%) and nursing home care (37%). Medicare and Medicaid administration, which includes claims processing, utilizes between 4-5% of total program costs.

2. MEDICARE

- Medicare is a federal insurance program composed of two parts:

  - Hospital Insurance (HI) covering hospital care, nursing home care, and home health benefits financed by compulsory contributions from employers and employees.

  - Claims for the Medicare hospital insurance are submitted as Part A.

  - Supplementary medical insurance (SMI) covering physician and other outpatient services, financed by voluntary monthly premiums shared by the recipient (or Medicaid) and the Federal Government.

  - Claims for the supplementary medical insurance are submitted as Part B.

- The insurance (both Part A and B) is administered primarily through private insurance companies, including:

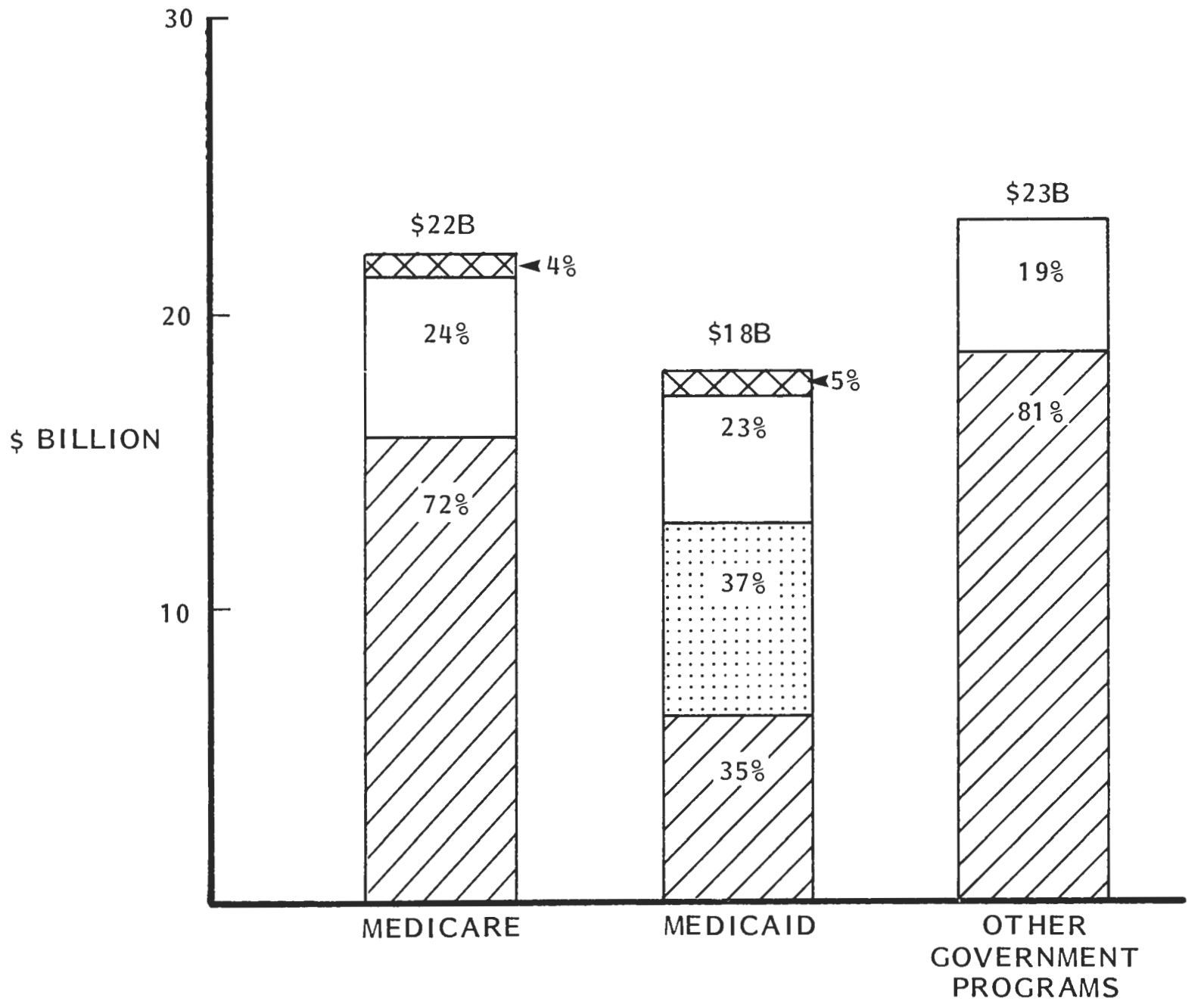
  - All 78 Blue Cross/Blue Shield plans.

  - Public insurance companies, such as Prudential, Metropolitan, Aetna, and Connecticut General.

- The initial contracts to administer this insurance were negotiated. Hospitals can nominate administration of Part A claims. More recently, contract awards for Part B have been made on a competitive bid basis.

EXHIBIT III-2

GOVERNMENT PROGRAM FUNDING OF
PERSONAL HEALTH CARE SERVICES IN 1977



TOTAL EXPENDITURES - $63 BILLION

- Computer services vendors (notably EDS) are now competing as Medicare contractors.

- As shown in Exhibit III-3, Medicare costs for 1978 were forecasted at $26 billion.

- Currently, nearly 27 million people (about 12% of the population) are enrolled under Medicare but the number is increasing at a 3% AAGR.

- In 1976 approximately 55% of the people who were eligible had claims paid under Medicare.

3. MEDICAID

- Under Medicaid (Title 19 of the Social Security Act), the Federal Government supplements states' funds to provide medical assistance to the "needy." Federal reimbursement varies between 50% and 83%.

- Administration of Medicaid is a state responsibility under federal guidelines.

- Some states have their own health program names, such as MediCal in California. Nevertheless, they all come under the Medicaid umbrella.

- States contract with Blue Cross/Blue Shield plans, insurance companies, and computer services vendors for administration of the program.

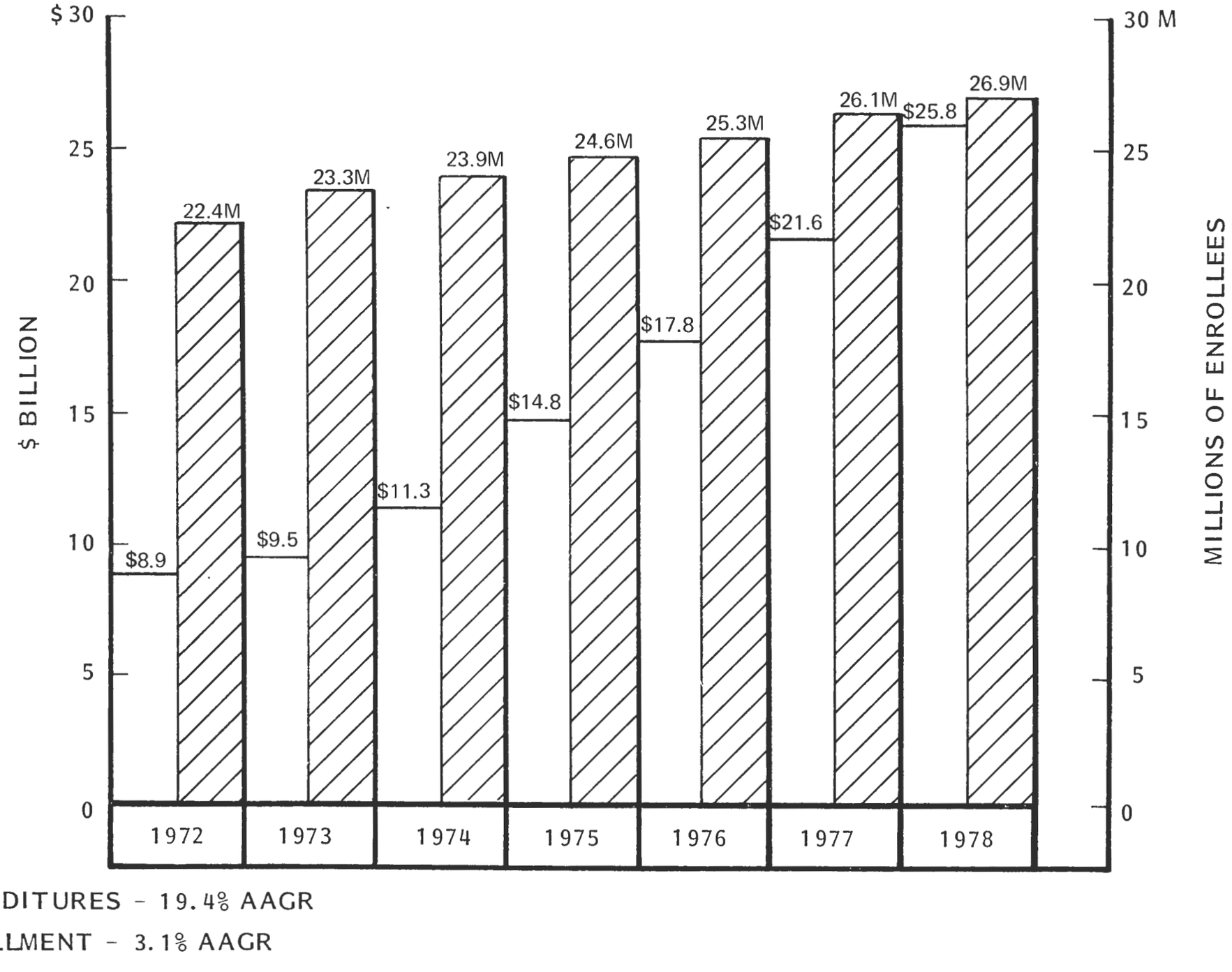
- Dental and drug programs are frequently contracted for on a separate basis. The trend is for states to contract for both drug and dental programs on a capitation basis.

- Eligibility for Medicaid generally relates to people receiving cash payments under Social Security Act welfare programs:

  - Aid to Families with Dependent Children (AFDC).

EXHIBIT III-3

GROWTH IN MEDICARE ENROLLMENT AND EXPENDITURES



- Supplemental Security Income (SSI) for the aged, blind, and disabled.

- Eash state generally determines the scope of its Medicaid program. Variables include:

  - Services offered.

  - Groups covered.

  - Income standards.

  - Levels of provider reimbursement.

- Types of services offered under Medicaid are listed in Exhibit III-4. Some services such as the Early Periodic Screening, Diagnostic and Treatment Program (EPSDT) are required. Delivery of optional services varies widely among states, greatly increasing the complexity of claims processing.

- Medicaid operates as a vendor payment program. Payments are made directly to the provider as services paid in full for an eligible recipient. There are instances (drugs and extended care facilities) where recipient co-payments are required.

- Many Medicaid recipients are also covered under Medicare. All but five states pay for Medicare supplementary medical insurance (SMI) premiums, deductibles, and co-payments not provided by Medicare.

- Exhibit III-5 contrasts growth in both Medicaid recipients and expenditures. Currently, Medicaid covers part, if not most, of the medical bills for over 25 million people. Recipient growth (5.6%) exceeds that of the general population.

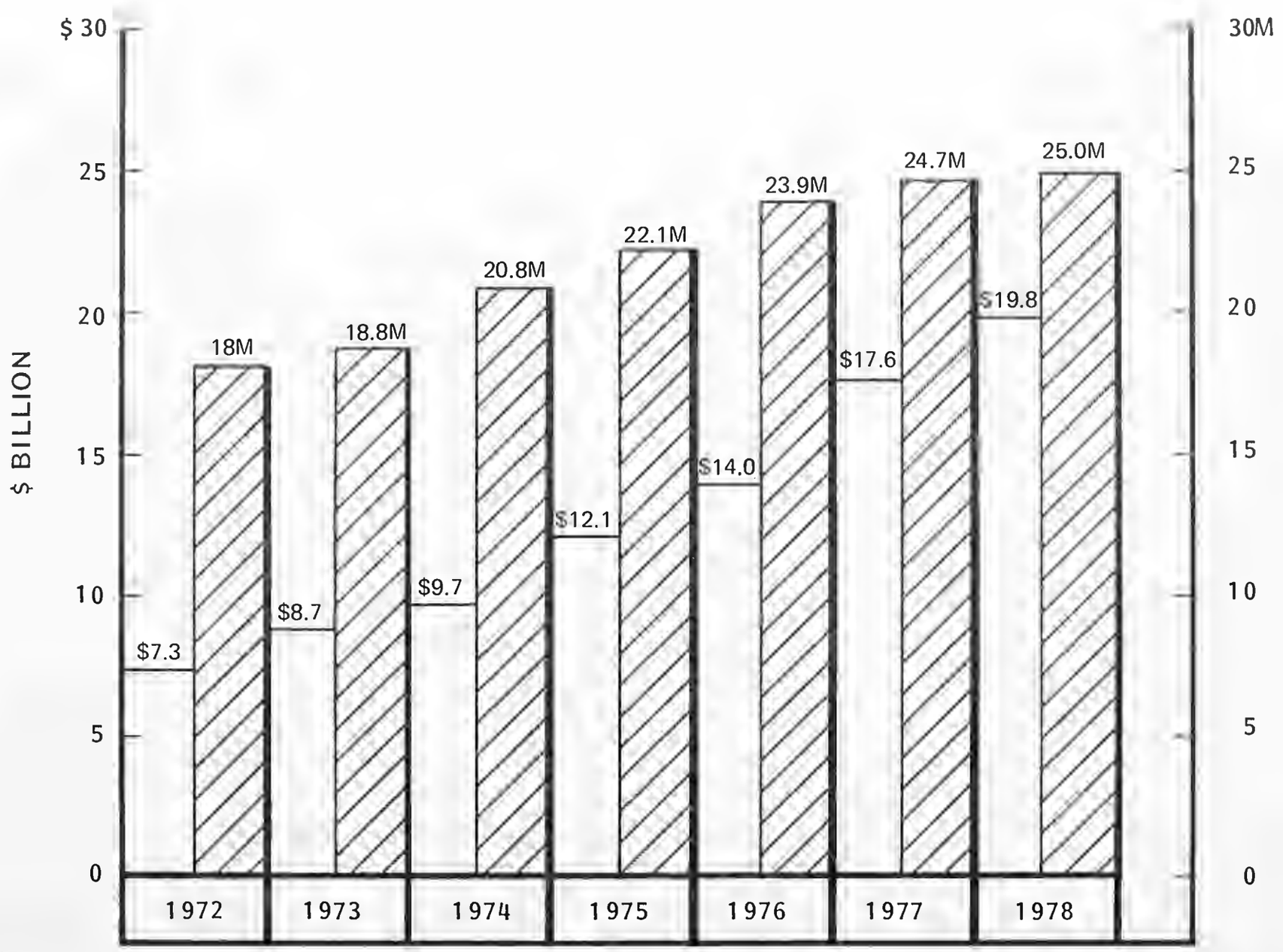
EXHIBIT III-4

SERVICES PROVIDED BY MEDICAID

SERVICE TYPE	REQUIRED	OPTIONAL
INPATIENT HOSPITAL	X	
OUTPATIENT HOSPITAL	X	
PHYSICIANS	X	
SKILLED NURSING FACILITIES (SNF)	X	
LABORATORY AND X-RAY	X	
HOME HEALTH	X	
EARLY AND PERIODIC SCREENING, DIAGNOSTIC AND TREATMENT (EPSDT)	X	
FAMILY PLANNING	X	
TRANSPORTATION		X
PRESCRIBED DRUGS		X
DENTAL		X
CLINIC		X
CHIROPRACTORS		X
PODIATRISTS		X
OPTOMETRISTS		X
EYEGLASSES		X
AUDIOLOGY AND SPEECH		X
PROSTHETIC DEVICES		X
PHYSICAL THERAPY		X
OCCUPATIONAL THERAPY		X
PRIVATE DUTY NURSING		X
INTERMEDIATE CARE FACILITIES (ICF)		X
OTHER DIAGNOSTIC, SCREENING SERVICES		X
EMERGENCY HOSPITAL SERVICES		X
PATIENTS UNDER 21 IN SNF		X
PATIENTS UNDER 21 IN PSYCHIATRIC HOSPITALS		X
PATIENTS 65 AND OVER IN MENTAL HOSPITALS		X
PATIENTS 65 AND OVER IN TUBERCULOSIS HOSPITALS		X

EXHIBIT III-5

GROWTH IN MEDICAID RECIPIENTS AND EXPENDITURES 1972–1978



- The total cost of Medicaid in 1978 was $20 billion. Expenditure growth (18%) greatly exceeds the Consumer Price Index. Three states accounted for nearly 41% of the total Medicaid expenditures in that year:

  - New York, with 22%.

  - California, with 13%.

  - Illinois, with 6%.

- Administrative and training costs (including data processing) averaged 4.6% of the total program costs (over $900 million).

- Administrative and data processing costs are reimbursed by the Federal Government; the level depending on the certification of the Medicaid Management Information System (MMIS).

  - The Federal Government will reimburse 90% of the development and implementation cost of an approved MMIS.

4. CHAMPUS

- The Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) provides selected dependents and members of the uniformed services with private health care reimbursement on a cost sharing basis when care is not obtainable from a uniformed services Medicaid facility. Those eligible are:

  - Dependents of active duty members.

  - Retired members and their dependents.

  - Dependents of deceased active or retired members.

- Eligibility is determined by the responsible uniformed service (i.e., Army, Coast Guard, etc.).

- CHAMPUS eligibility is lost when participants become eligible for Medicare.

- CHAMPUS is under the jurisdiction of DOD which contracts with vendors for program administration.

- Four western states (California, Nevada, New Mexico, and Arizona) account for nearly 40% of CHAMPUS benefit payments (California alone accounts for 30%).

- The total DOD 1978 budget for CHAMPUS is estimated to be over $800 million.

5. ADMINISTRATIVE STRUCTURE

- The Federal Government uses contractors as fiscal intermediaries (FI) to administer Medicare (Part A) and CHAMPUS. Contractors as carriers are used to administer Medicare (Part B).

- Both fiscal intermediaries and carriers deal directly with health care providers (hospitals, physicians, etc.) and recipients (patients). They pay the claims and then are reimbursed by the government for the claim amount plus administrative expenses. Fiscal intermediaries have no liability or financial responsibility with respect to claim payments.

- Validity of claims payment by fiscal intermediaries is audited by Professional Services Review Organizations (PSRO) for Medicare Part A.

- Carriers do their own utilization review for eligibility and payment.

- The Federal Government deals with the states in the Medicaid program. States are responsible for implementing Medicaid under federal guidelines.

- The state can act as its own fiscal agent or contract part or all of claims administration to contractors.

  - Sixteen states act as their own fiscal agents getting some form of computer services help for claims data processing.

  - Arizona is the only state without a Medicaid program.

  - The remaining states use contractors who act as Fiscal Intermediaries (FI) or Fiscal Agents (FA).

- In addition to intermediary responsibilities, fiscal agents take varying degrees of responsiblity for the correct payment of claims. On occasion, fiscal agents take on the role of underwriter for part (drugs) or all of the program.

- Fiscal agents receive funds in advance from states on a quarterly basis making use of a "float" in the reimbursement process.

- The Federal Government for the most part reimburses the state for a major portion of claims payments according to a formula (federal medical assistance percentage) related to state per capita income. The portion varies from 50% for high per capita income states to 83% for low income states.

- The reimbursement level for administrative expenses is generally on a matching (50%) basis. There are important exceptions:

  - Ninety percent reimbursement for development and certification of a Medicaid Management Information System (MMIS).

  - Seventy-five percent of EDP costs (vs. 50%) in operating a certified MMIS.

  - Ninety percent for family planning administration.

- One hundred percent for skilled nursing inspectors.

- Seventy-five percent for professional medical administrative personnel.

- Insurance contractors frequently subcontract Medicare, Medicaid, and CHAMPUS medical claims processing to computer services vendors.

B. MARKET FORECAST

- Expenditures for computer services for government funded health insurance will increase from $376 million in 1978 to $837 million in 1984, an AAGR of 14% (Exhibit III-6).

- This forecast is based on:

  - Four percent of total Medicare costs are for contractor administrative expenditures.

  - Twenty percent of Medicare contractor administrative expenditures are for EDP claims processing.

  - Four and six-tenths percent of total Medicaid costs are for administration and training.

  - Nineteen percent of the contractor administrative portion is for EDP claims processing.

- The forecast is consistent with an average EDP cost per claim of between $0.90 and $1.10.

- Data processing revenues from Medicare Part A are a relatively small part of the total computer services expenditures (less than 10%). Processing for Part

EXHIBIT III-6

COMPUTER SERVICES EXPENDITURES
FOR GOVERNMENT FUNDED HEALTH
INSURANCE BY PROGRAM, 1978-1984

PROGRAM	EXPENDITURES ($ MILLION)			AAGR 1979-1984 (PERCENT)
	1978	1979	1984	
MEDICARE CONTRACTORS				
PART A	$ 32	$ 36	$ 70	14%
PART B	101	114	199	12
MEDICARE SUB-CONTRACTORS	51	59	118	15
CHAMPUS	10	11	18	11
MEDICAID CONTRACTORS AND SUB-CONTRACTORS	182	210	432	16
TOTAL	$ 376	$ 430	$ 837	14%

A is heavily administrative and mostly manual. The claim volume is small with many items per claim.

- Improvement in computer systems utilization through the use of on-line systems for data entry, inquiry, and data base management systems has held the AAGR for computer services (14%) below growth in program costs (19% for Medicare and 18% for Medicaid).

- Computer services expenditures for Medicaid have the largest growth (16%) due to:

  - A 5.6% AAGR in recipients for Medicaid versus 3.1% in Medicare.

  - Continued shift of Medicaid administration by states from in-house to contractors.

- The forecast assumes that national health insurance will not greatly impact the marketplace within the next five years. Enactment of NHI will more than double the government funded health insurance market subsector, at some expense to EDP expenditures for in-house processing of private health insurance.

- The market is highly specialized and is considered an "industry specialty" within the computer services industry.

- The market is predominantly Facilities Management (FM) oriented. Systems contracts for all administrative services (including data processing) are let for three to five years.

  - Data processing is usually subcontracted for a similar period.

  - FM constitutes 88% of the total market.

- As shown in Exhibit III-7, RCS through on-line services is the most rapidly growing mode (AAGR 25%).

- Some firms are specializing in software products oriented towards developing medical management information systems for Medicare, Medicaid, and CHAMPUS.

- Professional services are being used to support those states where claim processing is in-house.

C. INFLUENCING FACTORS

1. NATIONAL HEALTH INSURANCE (NHI)

- The major industry issue is National Health Insurance (NHI).

- There are two major plans before Congress:

  - Kennedy-Waxman Health Care for All Americans Act.

  - Carter Administration National Health Care Plan.

- A basic comparison of the two plans is found in Exhibit III-8.

- Both plans use the private sector, commercial insurance carriers, Blue Cross/Blue Shield, and prepaid medical plans to insure recipients and administer claims processing.

- The Kennedy-Waxman plan emphasizes cost containment through negotiated rates and budget targets, rather than "as customary" payments based on past year actual costs.

EXHIBIT III-7

COMPUTER SERVICES MARKET FORECAST FOR
GOVERNMENT FUNDED HEALTH INSURANCE BY SERVICE MODE,
1978-1984

COMPUTER SERVICE		USER EXPENDITURES ($ MILLION)			
MODE	TYPE	1978	1979	1984	AAGR 1979-1984 (PERCENT)
REMOTE COMPUTING SERVICES	GENERAL BUSINESS	–	–	–	–
	INDUSTRY SPECIFIC	$ 15	$ 19	$ 57	25%
	UTILITY	–	–	–	–
SUBTOTAL		15	19	57	–
FACILITIES MANAGEMENT	GENERAL BUSINESS	–	–	–	–
	INDUSTRY SPECIFIC	329	374	702	13
	UTILITY	–	–	–	–
SUBTOTAL		329	374	702	13
BATCH	GENERAL BUSINESS	–	–	–	–
	INDUSTRY SPECIFIC	–	–	–	–
	UTILITY	–	–	–	–
SUBTOTAL		–	–	–	–
TOTAL PROCESSING	GENERAL BUSINESS	–	–	–	–
	INDUSTRY SPECIFIC	344	393	759	14
	UTILITY	–	–	–	–
TOTAL		$ 344	$ 393	$ 759	14%
SOFTWARE PRODUCTS	SYSTEM	6	7	15	16
	APPLICATION	14	16	34	16
TOTAL		20	23	49	16
PROFESSIONAL SERVICES		12	14	29	16
GRAND TOTAL		$ 376	$ 430	$ 837	14%

EXHIBIT III-8

COMPARISON OF MAJOR FEDERAL PLANS FOR NATIONAL HEALTH INSURANCE

PLAN SPONSOR/NAME	KEY PROVISIONS	FUNDING	ADDITIONAL COST
KENNEDY-WAXMAN HEALTH CARE FOR ALL AMERICANS ACT	• FULL COVERAGE FOR ALL U.S. RESIDENTS FOR HOSPITAL, PHYSICIAN AND DRUG BILLS • LIMITED COVERAGE OF DRUGS AND NURSING HOME COSTS • PHYSICIAN AND HOSPITAL FEES SET BY NEGOTIATION AT STATE LEVEL • MEDICARE EXPANDED TO INCLUDE ALL PEOPLE OVER 65 AND MOST DISABLED UNDER 65 • EMPLOYERS BUY INSURANCE FROM COMMERCIAL CARRIERS. EMPLOYEES PAY UP TO 35% OF PREMIUMS • UNEMPLOYED PREMIUMS COVERED BY EMPLOYER-EMPLOYEE PREMIUM POOL	• 40% FROM GENERAL TAX REVENUE • 60% FROM EMPLOYER-EMPLOYEE PREMIUMS	• $28.6 BILLION IN ADDITIONAL FEDERAL FUNDS IN 1983 • $11.4 BILLION IN ADDITIONAL PRIVATE FUNDS IN 1983
CARTER ADMINISTRATION NATIONAL HEALTH PLAN PHASE I	• COVERAGE FOR ALL CITIZENS AGAINST CATASTROPHIC ILLNESS-IN EXCESS OF MAXIMUM OF $2,500 OR 60 HOSPITAL DAYS • MEDICAID AND MEDICARE EXPANDED, STREAMLINED UNDER FEDERAL ADMINISTRATION • CASH INCENTIVES FOR JOINING HMOS • PILOT PROGRAM IN PREVENTATIVE HEALTH CARE	• FEDERAL GOVERNMENT PROVIDES MAJOR PORTION OF NEW FUNDING • EMPLOYERS WOULD PROVIDE ADDITIONAL COVERAGE TO FULL TIME EMPLOYEES AND DEPENDENTS	• $15-$20 BILLION IN ADDITIONAL FEDERAL AND PRIVATE FUNDS IN 1983

- Carriers negotiate with doctors and hospitals at the state level to set fees and charges as full payment for services.

- The Carter Administration plan addresses catastrophic illness and extends medical coverage to the poor in Phase I, extending more comprehensive coverage in Phase II over a seven year period.

- The Kennedy-Waxman plan offers comprehensive coverage, phased in over five years with most groups covered by 1983.

- The most ambitious plan (Kennedy-Waxman) would increase 1983 personal health care expenditures by nearly $29 billion to $367 billion.

  - Private sector expenditures would drop from its non-NHI level of $186 billion to $74 billion (19% of the total).

  - Public sector expenditures would increase from $152 billion to $297 billion (81% of the total).

- The implementation of any NHI system would greatly revise Medicaid.

  - Both plans streamline Medicaid administration with a strong implication of direct federal control as in Medicare.

- For NHI to become viable, some resolution of the abuse and fraud issue is needed. This involves the controversial issues of:

  - A national identification system.

  - Privacy of files in government hands.

- It is difficult to implement a national health insurance system in an economy that tends to be both inflationary and recessionary. For this reason, INPUT believes that NHI is still five years away.

2. EXISTING PROGRAM REVISIONS

- There are a number of actions being taken to streamline federally financed health insurance programs in preparation for national health insurance.

- The Federal Government (HCFA) is putting pressure on states to open up the bidding process to enable contractors to have a fair chance of competing for Medicaid fiscal intermediary/agent awards. By proper advertising and by increasing the response time to bid (often 30 days or less to 90 days or more), computer services vendors have a real opportunity to alter the status quo, wherein Blue Cross/Blue Shield plans have been awarded selected state contracts year after year.

- In an attempt to combat abuse and fraud, HCFA is trying to reduce the number of vendors authorized to accept Medicare Part A and Part B claims in selected states.

  - This trend will result in one contractor per large state. For example, in Illinois EDSF won the contract to process Medicare Part B for the entire state, eliminating multiple Blue Cross/Blue Shield plans.

- HCFA is also trying to regionalize claims administration for less populous states. An RFP is underway to combine Medicare Part A and B claims administration for Colorado, Wyoming, and Utah under a single contractor.

  - Part A is currently done by nomination by the hospitals. Aetna, Prudential, Mutual of Omaha, and the state Blue Cross plans are all claims contractors.

  - Part B for Wyoming is done by Equitable; for Colorado and Utah by their respective Blue Cross/Blue Shield plans.

  - The award will probably be challenged in the courts because of the right of nomination provided by the Social Security Act.

- Attempts at regionalization of CHAMPUS using computer services vendors have not been successful thus far.

  - Dikewood Corporation gave up the Northwest region of Washington, Oregon, and Alaska.

  - Planning Research Corporation dropped out of Illinois and Kentucky.

- Contractors cited low claims volume, excessive reimbursement delays, and overly complex administrative procedures. Computer services vendors have pretty much abandoned CHAMPUS to Blue Cross/Blue Shield plans.

  - As a consequence, claims costs are high. Congress has asked DOD to develop new guidelines for CHAMPUS administration. New competitive procurements, perhaps on a national level, should offer computer services vendors a better opportunity to re-enter the CHAMPUS subsegment of the marketplace.

- The growth of prepaid health insurance plans in the form of Health Maintenance Organizations (HMOs) is altering the system, affording new opportunities for computer services.

3. COMPETITION

- Major vendors are positioning themselves to become prime contractors to administer National Health Insurance as it evolves.

  - EDS has formed National Heritage Insurance to underwrite Texas Medicaid.

  - Bradford National Corporation has become the fiscal agent for New York State (other than New York City). Bradford recently acquired Eagles National Life Insurance Company.

  - Computer Sciences Corporation (CSC) and System Development Corporation (SDC) are positioning themselves to process Medicare claims.

- Occidental, Aetna, Metropolitan, and other insurance carriers are bidding on both Medicare and Medicaid contracts to expand claims processing capabilities.

- Large computer services vendors, particularly EDS, are competing directly with Blue Cross/Blue Shield plans as fiscal intermediaries/agents, giving other computer services vendors the opportunity to bid with Blue Cross/Blue Shield plans on a subcontract basis.

IV USER ANALYSIS

IV USER ANALYSIS

A. APPLICATIONS

- Major applications accomplished under Medicare, Medicaid, and CHAMPUS are shown in Exhibit IV-1.

- For each application, estimates are provided for mode of service delivery, specifically:

  - The portion accomplished in the batch mode.

  - The portion accomplished on-line with respect to:

    . Data entry.

    . Inquiry.

    . File update.

- For example, Exhibit IV-1 indicates that provider eligibility is accomplished under all three government funded insurance programs. The application is accomplished in the batch mode more than 60% of the time; data entry

EXHIBIT IV-1

EDP UTILIZATION FOR GOVERNMENT FUNDED HEALTH INSURANCE APPLICATIONS

APPLICATION	PROGRAM APPLICABILITY			MODE OF SERVICE DELIVERY			
					ON LINE		
	MEDICARE	MEDICAID	CHAMPUS	BATCH	DATA ENTRY	INQUIRY	FILE UPDATE
BENEFICIARY ELIGIBILITY	YES	YES	YES	XXX	XX	X	X
PROVIDER ENROLLMENT	NO	YES	NO	XXXX	XXX	XX	X
PROVIDER ELIGIBILITY	YES	YES	YES	XXXX	XXX	X	X
CLAIMS ENTRY	YES	YES	YES	XXX	XX	XX	XX
CLAIMS PROCESSING	YES	YES	YES	XXX	X	X	XX
MANAGEMENT AND ADMINISTRATION REPORTING	YES	YES	YES	XXXX	X	XX	X
UTILIZATION REVIEW	YES	YES	NO	XXXX	–	X	–
PSRO REPORT	NO	YES	NO	XXXX	–	X	–

– = NOT AVAILABLE
X = LESS THAN 1%
XX = BETWEEN 10 AND 20%
XXX = BETWEEN 20 AND 60%
XXXX = GREATER THAN 60%

functions are accomplished on-line between 20% and 60% of the time, whereas inquiry and file update are currently accomplished on-line less than 10% of the time.

- Batch is the predominant mode of service delivery, accounting for over 60% of EDP utilization. The use of on-line systems is rapidly increasing, however, both in FM and RCS environments.

B. USE OF COMPUTER SERVICES

1. MEDICARE

- Medicare is administered through contractors.

- Administration of Part A (hospitalization) is primarily with Blue Cross plans and a few large commercial carriers.

  - Aetna.
  - Mutual of Omaha.
  - Nationwide.
  - Prudential.
  - Travelers.

- EDP for Part A is, with the exception of FM, accomplished in-house.

- Administration of Part B (physicians) is currently accomplished through a combination of Blue Cross/Blue Shield plans and commercial insurance companies (plus a few others) as shown in Exhibit IV-2.

EXHIBIT IV-2

COMMERCIAL INSURANCE COMPANIES AND OTHER THAN BLUE CROSS/BLUE SHIELD PLANS INVOLVED IN MEDICARE PART B CLAIMS ADMINISTRATION

TYPE	NAME	STATES
INSURANCE	AETNA LIFE AND CASUALTY	CONNECTICUT, ARIZONA, HAWAII, NEVADA, OKLAHOMA, OREGON, ALASKA
	CONNECTICUT GENERAL	CONNECTICUT
	EQUITABLE	NEW YORK, NEW MEXICO, IDAHO, TENNESSEE, WYOMING
	GREAT AMERICAN	MISSOURI
	GROUP HEALTH	NEW YORK, FLORIDA
	METROPOLITAN LIFE	NEW YORK, KENTUCKY
	MUTUAL OF OMAHA	NEBRASKA
	NATIONWIDE	OHIO, WEST VIRGINIA
	OCCIDENTAL LIFE	CALIFORNIA
	PAN AMERICAN	(NATIONAL)
	PRUDENTIAL	NEW JERSEY, NORTH CAROLINA, GEORGIA
	TRAVELERS	MINNESOTA, MISSISSIPPI, VIRGINIA
	UNION MUTUAL LIFE	
OTHER	STATE OF OKLAHOMA	OKLAHOMA
	RAILROAD RETIREMENT BOARD	(NATIONAL)

- EDP for Part B is done both in-house and on a subcontract basis with computer services vendors. A complete list of Part B contractors/EDP subcontractors by state is shown in Appendix E.

- HCFA is attempting to consolidate and regionalize Medicare administration.

  - EDS recently won the Part B contract for all of Illinois.

  - An RFP is underway for Part A and B administration for a three state region (Colorado, Wyoming, Utah).

- Opportunities are increasing for large computer services vendors (i.e., EDS, CSC, Bradford) for direct administration of claims processing (including EDP) for Medicare.

2. MEDICAID

- Medicaid administration is accomplished in a variety of ways:

  - Seventeen states do it themselves (e.g., Kentucky).

  - Some states remain the fiscal agent and contract claims administration to Blue Cross/Blue Shield plans, commercial insurance companies, and computer services vendors.

  - Many states contract the entire Fiscal Agent administration responsibility to Blue Cross plans, commercial insurance companies, and increasingly to computer services vendors.

  - Some states contract separately for drug and for dental claims administration.

- A complete list of Medicaid fiscal intermediaries/agents appears in Appendix F.

- The trend in Medicaid is to contract on a competitive basis for all program administration within a state. When the bid process is really competitive (i.e., good specifications and sufficient bid time) computer services vendors are successful.

  - In Texas, EDS administers the program.

  - CSC administers the program in California.

  - In New York, it is Bradford.

- The trend is both toward increased automation and the use of contractors to do program administration (Exhibit IV-3).

3. CHAMPUS

- CHAMPUS is also administered through contractors.

- Except for Mutual of Omaha, CHAMPUS claims administration has fallen to Blue Cross/Blue Shield plans.

  - Management Data Communications Corporation (MDCC) processes CHAMPUS claims for Blue Cross/Blue Shield in 12 states.

  - EDS does CHAMPUS claims processing for California Blue Shield.

- Dikewood Industries, Planning Research Corporation, and Health Applications Systems (HAS) have all left the CHAMPUS marketplace.

- New procurement action is expected to result in a major shift in market share to computer services vendors.

EXHIBIT IV-3

DISTRIBUTION OF EDP
UTILIZATION FOR MEDICAID, 1976-1978

METHOD OF ACCOMPLISHMENT	PORTION OF STATES IMPLEMENTING	
	1976 (PERCENT)	1978 (PERCENT)
IN-HOUSE	24%	18%
COMPUTER SERVICES	57	66
NOT AUTOMATED	19	16
TOTAL	100%	100%

C. EXISTING PRODUCTS

- Standards for administering Medicare claims are:
  - Medicare Intermediaries Manual for Part A.
  - Medicare Carrier Manual for Part B.
- There is, however, no federal EDP standard for Medicare.
- However, there are a number of de facto standards for Medicare EDP.
  - The Blue Cross Association (BCA) has a model system for Part A, which is used by 25 Blue Cross plans and some other commercial carriers.
  - The Federal Model Systems for Part B is used by 27 carriers. It is available through the National Technical Information Service (NTIS).
  - McDonnell Douglas Automation (McAUTO) has an on-line version of the model for Part B.
  - EDS has a system for Part B that is used by 12 contractors.
  - Optimum Systems, Inc. (OSI) has a model system for Part B that is used on-line by nine states, and is developing a model system for Part A.
- Medicaid has a federal standard for development of Medicaid Management Information Systems (MMIS).
  - The Federal Government pays 90% of the cost to develop and implement the system.

- The government will also pay 75% versus 50% of administrative costs when the system is used.

- Development time can be up to two years and cost upwards to $10 million.

- A Model MMIS is available from the National Technical Information Service (NTIS).

- Other certified MMISs are operated by:

  - Electronic Data Systems (EDS).

  - The Computer Company (TCC).

  - Management Data Communications Company (MDCC).

D. NEEDED PRODUCTS

- There is a need to develop on-line systems to reduce the escalating cost of labor, particularly:

  - Data entry.

  - Inquiry.

- There is also a need to develop the means to update central files in real time to determine:

  - Recipient eligibility.

  - Provider enrollment and eligibility.

- There is a need to develop a subsystem to discover and reduce fraud and abuse.

E. INDUSTRY ISSUES

1. GOVERNMENT

- Medicare administration is becoming regionalized, offering new computer services opportunities.

- In larger states, HCFA is trying to combine Medicare Part A and Part B claims administration under single contractor responsibility. Competitive procurements offer:

  - Major opportunities for aggressive computer services vendors to win prime contracts.

  - New opportunities for other computer services vendors for joint ventures and for subcontracting claims processing.

- CHAMPUS administration is also becoming regionalized perhaps on a national basis; again offering computer services new opportunities for re-entering the market profitably.

- Both Medicare and Medicaid program administration is now open to competitive bidding. RFPs are better specified and allow more adequate bid response time.

- States are shifting from multiple to single contractors for Medicaid administration.

- States are shifting from in-house to outside program administration.

- Statewide beneficiary identification systems are under development.
  - This is an attempt to clean up Medicaid abuse and fraud.
  - The privacy issue has been a major stumbling block in developing eligibility systems.
- National health insurance is likely to provide:
  - An electronic interface with the Social Security Administration.
  - Major opportunities for systems contractors to handle this business.

2. DISTRIBUTED DATA PROCESSING (DDP)

- Health programs as currently structured tend toward high centralization - providing little need for DDP.
- The regionalization of Medicare, however, could offer opportunities for DDP in satellite data entry and inquiry.
- The advent of NHI will require a new and more probing look at how to provide data access and processing on a regional or national basis from local centers.

3. FACILITIES MANAGEMENT (FM)

- Government funded health insurance programs are good candidates for FM arrangements.
  - These programs have a heavy clerical component.
  - Huge transaction loads are involved - currently, 360 million Medicaid claims per year - which favor batch operation.

- Nearly 90% of current services are FM oriented.

4. USER SITE HARDWARE SERVICES (USHS)

- Health programs as currently structured have little need for computer services vendor networking.

- The advent of NHI will require network access on a national basis, opening up possibilities for USHS.

5. TURNKEY SYSTEMS

- The magnitude and complexity of health program applications are not compatible with a turnkey approach.

- There is little repeat business for Medicaid MIS developed for state in-house use.

V COMPETITIVE ENVIRONMENT

V COMPETITIVE ENVIRONMENT

A. COMPETITIVE STRUCTURE

- Providing computer services to government financed health insurance is a large and specialized market area.

- Over 100 vendors serve the marketplace.
  - Eighty Blue Cross/Blue Shield and prepaid medical plans.
  - Fifteen insurance companies.
  - Twenty commercial computer services vendors.

- Computer services for government financed health insurance are divided into three segments:
  - Medicare (Parts A and B), comprising 48% of the 1979 market, is currently dominated by the Blue Cross/Blue Shield plans. Computer services vendors provide FM and act as subcontractors for Part B processing.

- Medicaid comprises 49% of the 1979 market and is dominated by computer services vendors acting as fiscal intermediaries and more recently, as fiscal agents.

- CHAMPUS comprises nearly 3% of the 1979 market and is currently dominated by Blue Cross/Blue Shield plans. This market segment will be taken over by computer services vendors as a result of new procurement action.

- The three types of vendors are shown in Exhibit V-1.

  - Blue Cross/Blue Shield plans hold a decreasing 40% of the market.

  - Commercial insurance companies hold a decreasing 14% of the market.

  - Computer services vendors hold an increasing 46% of the market.

B. COMPUTER SERVICES VENDORS

1. ELECTRONIC DATA SYSTEMS CORPORATION (EDS)

- Through its subsidiary, E.D.S. Federal Corporation, EDS is the largest computer services vendor doing data processing for government funded health insurance programs. EDS' total 1979 revenues for systems contracts in this area are $112 million or 57% of the total commercial computer services vendors' revenues in this market.

- A breakdown of EDS' revenues from government programs is as follows:

EXHIBIT V-1

COMPUTER SERVICES VENDORS' SHARE OF THE

GOVERNMENT-FUNDED HEALTH INSURANCE MARKET IN 1979

VENDOR TYPE	$ MILLION				PORTION (PERCENT)
	PROGRAM			TOTAL	
	MEDICARE	MEDICAID	CHAMPUS		
BLUE CROSS/BLUE SHIELD PLANS	$ 118	$ 50	$ 5	$ 173	40%
COMMERCIAL INSURANCE COMPANIES	26	35	1	62	14
COMMERCIAL SERVICES VENDORS					
• EDS	53	55	4	112	
• BRADFORD	-	34	-	34	
• CSC	-	10	-	10	
• SDC	-	6	-	6	
• OSI	6	4	-	10	
• TCC	-	8	-	8	
• OTHERS	6	8	1	15	
SUB-TOTAL	65	125	5	195	46
TOTAL	$ 209	$ 210	$ 11	$ 430	100%

Medicare	-	$ 53
Medicaid	-	55
CHAMPUS	-	4
		$112 million

Most of EDS' contracts are for facilities management of data processing. However, EDS is extending its market share by bidding against Blue Cross/Blue Shield plans for the entire program administration.

- EDS formed National Heritage Insurance Company to become the underwriter and administrator for the total Medicaid program in Texas (earning revenues of $750 million over 32 months, $52 million of which is for program administration).

- EDS recently became the Medicare Part B contractor for Illinois.

- EDS Federal has developed its own certified MMIS software program.

- EDS Federal has also developed its own Medicare Part B software program.

2. COMPUTER SCIENCES CORPORATION (CSC)

- In August 1978, CSC was awarded the contract for administering the Medicaid programs for the state of California. The contract was for $129 million and runs for 5½ years.

- CSC used The Computer Company (TCC) as a subcontractor for development of the MMIS.

- CSC will take over claims administration and processing from Blue Cross/Blue Shield - then from EDS early in 1980.

- In February 1978, CSC acquired the claims processing operations of Paid Prescriptions, Inc. Paid Prescriptions is a prepaid drug fiscal agent under Medicaid for several states.

3. BRADFORD NATIONAL CORPORATION

- In April 1977, Bradford became the Medicaid data processing contractor for New York City. The contract covered a three-year period and was for $32 million per year.

- Early in 1979, Bradford became the Medicaid fiscal agent and data processor for the rest of New York State. The $13.4 million contract runs for four years.

- Bradford used TCC as the subcontractor to develop the MMIS software.

- Coupled with its financial market FM capability, Bradford's Medicaid contract positions the company for participation in NHI.

- Bradford recently acquired Eagles National Life Insurance Company.

4. SYSTEM DEVELOPMENT CORPORATION (SDC)

- In 1978, SDC replaced Blue Cross/Blue Shield as the Medicaid fiscal agent for Florida. Revenues under this contract are $6 million per year.

- SDC used TCC as the subcontractor for installation of the MMIS.

- SDC is a sizable government systems contractor and is in a good position to participate in NHI.

5. OPTIMUM SYSTEMS, INC. (OSI)

- OSI offers Medicare (Part B) processing on-line and in RCS mode.

- OSI also does Professional Standard Review Office (PSRO) processing to uncover potential abuse and fraud in Medicaid claims payments.

- OSI also leases their Medicare (Part B) software package to Blue Cross/Blue Shield plans and commercial insurance carriers.

- OSI is also developing a software package for processing Medicare Part A claims.

- Estimated 1979 revenues for OSI in this area are:

Medicare	$ 6 million
Medicaid (PSRO)	4 million
	$10 million

6. THE COMPUTER COMPANY (TCC)

- TCC is the Medicaid fiscal agent for Virginia.

- TCC is developing an MMIS for Maryland.

- TCC was the subcontractor for the MMIS for:

  - CSC in California.

  - SDC in Florida.

  - Bradford National in New York.

- TCC's related 1979 revenues are:

Medicaid	$ 8 million
Software and Consulting Services	4 million
	$12 million

7. PILGRIM HEALTH APPLICATIONS, INC.

- Pilgrim Health Applications, Inc., a subsidiary of Arthur D. Little, Inc., originally handled drug, dental, and optical claims for Massachusetts Medicaid. In 1979, Pilgrim became the Medicaid fiscal agent for Massachusetts.

- Pilgrim Health Applications also does PSRO processing for Massachusetts and Connecticut.

- Estimated 1979 related revenues exceed $6 million.

8. CONSULTEC

- CONSULTEC, a privately held Atlanta firm, does consulting and software development of MMIS for states (i.e., Nebraska) who run their own Medicaid processing system.

- CONSULTEC's estimated Medicaid related revenues exceed $1 million.

9. INFORMATICS INC.

- Informatics is a subcontractor to Equitable Life Assurance Company for Medicare Part B processing for Tennessee, Idaho, and New Mexico.

- Estimated related revenues of this company exceed $1 million.

10. DIKEWOOD CORPORATION

- Dikewood Corporation is the Medicaid fiscal agent for Montana.

- Estimated Medicaid processing revenues are less than $1 million.

11. MANAGEMENT DATA COMMUNICATIONS CORPORATION (MDCC)

- MDCC is a joint venture of three Blue Shield plans. MDCC originally did Medicare Part B processing for part of Illinois, Wisconsin, and North Dakota, but only North Dakota remains.

- MDCC does CHAMPUS processing for Blue Cross/Blue Shield plans in some 12 states.

- MDCC's estimated revenues are over $2 million.

VI PRODUCT AND MARKETING ISSUES

VI PRODUCT AND MARKETING ISSUES

A. PRODUCT STRATEGIES

- Acquire or participate in the development of an approved Medicaid Management Information System (MMIS). Use the model system available from National Technical Information Service (NTIS) as a guide.

- Acquire or develop a Medicare Part B Management Information System.

- Acquire or develop a Medicare Part A Management Information System to meet long range goal of participating in National Health Insurance (NHI).

- Possess the capability to do FM of large data processing operations.

- Concentrate on on-line systems to handle data entry and inquiry.

- Develop data base management systems capability.

B. MARKETING STRATEGIES

- Carefully plan market entry as the market is specialized and the cost of entry is very high.

- Develop the capability to competitively bid and negotiate large government contracts.

- Look for joint ventures with Blue Cross/Blue Shield plans and with selected insurance companies to do claims administration, including data processing, for government funded health insurance programs.

- Establish a separate division or subsidiary in preparation for participating in the emerging National Health Insurance (NHI) market.

- Continuously monitor congressional activity on National Health Insurance (NHI).

- Monitor Health Care Financng (HCFA) plans and programs to improve Medicare and Medicaid program administration.

- Acquire specialized Medicare/Medicaid software and processing vendors before entering the market.

- Hire or contract for required professional medical personnel for such functions as medical procedures and utilization review.

- Consider forming or acquiring an insurance company to underwrite and administer Medicare/Medicaid/CHAMPUS programs for complete states or regions.

APPENDIX A: RELATED INPUT REPORTS

APPENDIX A: RELATED INPUT REPORTS

Title	Publication Date	Price
Computer Services Industry 1978 Annual Report	November 1978	Out Of Print
Computer Services Industry 1979 Annual Report	November 1979	$ 4,000
Computer Services Markets In The Government Funded Health Insurance Industry	January 1977	Out Of Print
Computer Services Markets In Insurance Companies	November 1979	$ 1,500

Contact: Walter P. Smith, Vice President at (415) 493-1600.

APPENDIX B: PRINCIPAL REFERENCE SOURCES

APPENDIX B: PRINCIPAL REFERENCE SOURCES

U.S. Department of Health, Education and Welfare. Health Care Financing Administration. Data on the Medicaid Program Eligibility/Service/Expenditures; Fiscal Years 1966-1977. 1977.

U.S. Department of Health, Education and Welfare. Health Care Financing Administration. Data on the Medicaid Program Eligibility/Service/Expenditures; Fiscal Years 1966-1978. 1978.

U.S. Department of Health, Education and Welfare. Health Care Financing Administration. Data on the Medicaid Program Eligibility/Service/Expenditures; Fiscal Years 1966-1979. 1979.

U.S. Bureau of the Census. Statistical Abstract of the United States: 1976. (97th edition.) Washington, D.C., 1976.

U.S. Bureau of the Census. Statistical Abstract of the United States: 1977. (98th edition.) Washington, D.C., 1977.

U.S. Bureau of the Census. Statistical Abstract of the United States: 1978. (99th edition.) Washington, D.C., 1978.

U.S. Department of Health, Education and Welfare. Social Security Administration. Social Security Bulletin. (Various monthly issues, 1976-1979.) Washington, D.C.

U.S. Department of Health, Education and Welfare. Social Security Administration. Annual Statistical Supplement to the Social Security Bulletin. Washington, D.C., 1978.

APPENDIX C: DEFINITION OF TERMS

APPENDIX C: DEFINITIONS

- **COMPUTER SERVICES**

  These are services provided by vendors which perform data processing functions using vendor computers, or assist users to perform such functions on their own computers.

- The following are definitions of the modes of service used in this report.

- **REMOTE COMPUTING SERVICES (RCS)**

  Provision of data processing to a user by means of terminals at the user's site(s) connected by a data communications network to the vendor's central computer. The three sub-modes of RCS are:

  1. INTERACTIVE (timesharing) is characterized by interaction of the user with the system, primarily for problem solving timesharing, but also for data entry and transaction processing; the user is "on-line" to the program/files.

  2. REMOTE BATCH is where the user hands over control of a job to the vendor's computer which schedules job execution according to priorities and resource requirements.

3. DATA BASE is characterized by the retrieval of information from a vendor-maintained data base. This may be owned by the vendor or a third party.

- **BATCH SERVICES**

This includes data processing performed at vendors' sites of user programs and/or data which are physically transported (as opposed to electronically by telecommunications media) to and/or from those sites. Data entry and data output services, such as keypunching and COM processing, are also included. Batch services include those expenditures by users which take their data to a vendor site which has a terminal connected to a remote computer used for the actual processing.

- **FACILITIES MANAGEMENT (FM)**

(Also referred to as "Resource Management" of "Systems Management.") The management of all or part of a user's data processing functions under a long-term contract (not less than one year). To qualify as FM, the contractor must directly plan and control as well as operate the facility provided to the user on-site, through communications lines, or mixed mode. Simply providing resources, even though under a long-term contract and/or for all of a users' processing needs, does not necessarily qualify as FM.

- **PROFESSIONAL SERVICES**

Management consulting related to EDP, systems consulting, systems design and programming, and other professional services are included in this category. Services can be provided on a basis of: "Time and Materials," whereby the user pays for the time used of an individual on a daily or other fixed rate, or "Fixed Price," where the user pays a fixed fee for a specific task or series of tasks.

• SOFTWARE PRODUCTS

This category is for users' purchases of systems and applications packages for use on in-house computer systems. The figures quoted include lease and purchase expenditures, as well as fees for work performed by the vendor to implement and maintain the package at the users' sites. Fees for work performed by organizations other than the package vendor are counted in professional services. The two sub-categories are:

1. SYSTEMS PACKAGES are operating systems, utilities, and language routines that enable the computer/communications system to perform basic functions. This software is provided by the mainframe manufacturers with their hardware; other vendors provide improved versions of this and special-purpose routines. This classification includes compilers, data base management software, communications packages, simulators, performance measurement software, diagnostic software, and sorts.

2. APPLICATIONS PACKAGES are software which perform processing to service user functions. They consist of general purpose packages, such as for accounting and inventory control, and special purpose packages, such as personal trust, airline scheduling, and demand deposit accounting.

• PROCESSING SERVICES

Processing services encompass FM, RCS, and batch services: they are categorized by type of service, as distinguished from mode of service, bought by users as follows:

- GENERAL BUSINESS services are processing services for applications which are common to users across industry categories. Software is provided by the vendor; this can be a complete package, such as a payroll package, or an application "tool," such as a budgeting model,

where a user provides much of the customizing of the finished product it uses. General business processing is often repetitive and transaction oriented.

- SCIENTIFIC AND ENGINEERING services are the processing of scientific and engineering problems for users across industries. The problems usually involve the solution of mathematical equations. Processing is generally problem solving and is non-repetitive, except in the sense that the same packages or "tools" are used to address different, but similar, problems.

- INDUSTRY SPECIALTY services provide processing for particular functions or problems unique to an industry or industry group. The software is provided by the vendor either as a complete package or as an application "tool" which the user employs to produce its unique solution. Specialty applications can be either business or scientific in orientation; data base services where the vendor supplies the data base and controls access to it (although it may be owned by a third party) are also included under this category. Examples of industry specialty applications are: seismic data processing, numerically-controlled machine tool software development, and demand deposit accounting.

- UTILITY services are those where the vendor provides access to a computer and/or communications network with basic software that enables any user to develop its own problem solution or processing system. These basic tools include terminal handling software, sorts, language compilers, data base management systems, information retrieval software, scientific library routines, and other systems software.

- **DISTRIBUTED DATA PROCESSING (DDP)**

  - INPUT was unable to find a consensus among both users and vendors as to a definition of DDP. It appears to be a concept that is uniquely structured to satisfy individual vendor and user requirements.

  - Nonetheless, as a result of extensive work in this area, INPUT offers the following hybrid definition:

    "Distributed processing is the deployment of programmable intelligence in order to perform data processing functions where they can be accomplished most effectively, through the electronic interconnection of computers and terminals, arranged in a telecommunications network adapted to the user's characteristics."

- **AN END USER** may buy a system from the hardware supplier(s) and do his own programming, interfacing and installation. Alternately, he may buy a turnkey system from a manufacturer, systems house or hardware integrator.

- **SOFTWARE PRODUCTS** are systems and applications packages that are sold to computer users by equipment manufacturers, independent vendors, and others. They include fees for work performed by the vendor to implement a package at the user's site.

- **A SYSTEMS HOUSE** integrates hardware and software into a total turnkey system to satisfy the data processing requirements of the end user. It may also develop system software products for license to end users.

- **A TURNKEY SYSTEM** is composed of hardware and software integrated into a total system designed to fulfill completely the processing requirements of a single application, usually on a standalone basis.

- **USER SITE HARDWARE SERVICES (USHS)**

  - These are offerings, typically from RCS vendors, which place programmable hardware on the user site (as compared to the EDP center).

    . Offer access to communications network.

    . Offer access through the network to the RCS vendor's larger computers.

    . Offers significant software as part of the offering.

APPENDIX D: STANDARD INDUSTRIAL CLASSIFICATION (SIC) INDUSTRIES INCLUDED IN INSURANCE SUBSECTORS

APPENDIX D

STANDARD INDUSTRIAL CLASSIFICATION (SIC) INDUSTRIES INCLUDED IN INSURANCE SUBSECTORS

STANDARD INDUSTRIAL CLASSIFICATION			INSURANCE SUBSECTORS				
GROUP NUMBER	INDUSTRY NUMBER	INDUSTRY NAME	LIFE/HEALTH	PROPERTY/ CASUALTY	GOVERNMENT FUNDED HEALTH INSURANCE	OTHER	AGENTS AND BROKERS
631	6311	LIFE INSURANCE	X				
632	6321	ACCIDENT AND HEALTH INSURANCE	X				
	6324	PRIVATE HOSPITAL AND MEDICAL SERVICE PLANS				X	
633	6331	FIRE, MARINE AND CASUALTY INSURANCE		X			
635	6351	SURETY INSURANCE		X			
636	6361	TITLE INSURANCE		X			
637	6371	PENSION, HEALTH AND WELFARE FUNDS				X	
639	6399	MISCELLANEOUS INSURANCE CARRIERS				X	
641	6411	INSURANCE AGENTS AND BROKERS					X
–	–	GOVERNMENT FUNDED HEALTH AND WELFARE INSURANCE			X		

APPENDIX E: MEDICARE PART B EDP CONTRACTORS/SUBCONTRACTORS, 1979

APPENDIX E

MEDICARE PART B EDP CONTRACTORS/SUBCONTRACTORS

1979

STATE	CONTRACTOR	EDP SUBCONTRACTOR
ALABAMA	Blue Cross/Blue Shield	
ALASKA	Aetna	
ARIZONA	Aetna	
ARKANSAS	Blue Cross/Blue Shield	Optimum Systems, Inc.
CALIFORNIA	Blue Cross/Blue Shield (Northern California) Occidental Life (Southern California	E.D.S. Federal Corp.
COLORADO	Blue Cross/Blue Shield	
CONNECTICUT	Connecticut General	Optimum Systems, Inc.
DELAWARE	Blue Cross/Blue Shield	
DISTRICT OF COLUMBIA	Blue Cross/Blue Shield	
FLORIDA	Blue Crosss/Blue Shield (Northern Florida) Group Health (Southern Florida)	E.D.S. Federal Corp.
GEORGIA	Prudential	
GUAM	Blue Cross/Blue Shield	
HAWAII	Aetna	
IDAHO	Equitable	Informatics, Inc.
ILLINOIS	EDS. Federal	
INDIANA	Blue Cross/Blue Shield	

APPENDIX E (CONT.)

MEDICARE PART B EDP CONTRACTORS/SUBCONTRACTORS

1979

STATE	CONTRACTOR	EDP SUBCONTRACTOR
IOWA	Blue Cross/Blue Shield	E.D.S. Federal Corp.
KANSAS	Blue Cross/Blue Shield	
KENTUCKY	Metropolitan Life Insurance	
LOUISIANA	Blue Cross/Blue Shield	
MAINE	Blue Cross/Blue Shield	
MARYLAND	Blue Cross/Blue Shield	
MASSACHUSETTS	Blue Cross/Blue Shield	E.D.S. Federal Corp.
MICHIGAN	Blue Cross/Blue Shield	
MINNESOTA	Blue Cross/Blue Shield, Travelers	Optimum Systems, Inc.
MISSISSIPPI	Travelers	
MISSOURI	General American	
MONTANA	Blue Cross/Blue Shield	
NEVADA	Aetna	
NEW HAMPSHIRE	Blue Cross/Blue Shield	
NEW JERSEY	Prudential	
NEW MEXICO	Equitable	Informatics, Inc.
NEW YORK	Blue Cross/Blue Shield (NYC) Metropolitan	E.D.S. Federal Corp.
NORTH CAROLINA	Prudential	

APPENDIX E (CONT.)

MEDICARE PART B EDP CONTRACTORS/SUBCONTRACTORS

1979

STATE	CONTRACTOR	EDP SUBCONTRACTOR
NORTH DAKOTA	Blue Cross/Blue Shield	Management Data Communications Corp.
OHIO	Nationwide	E.D.S. Federal Corp.
OKLAHOMA	Aetna	
OREGON	Aetna	
PENNSYLVANIA	Blue Cross/Blue Shield	
PUERTO RICO	Blue Cross/Blue Shield	E.D.S. Federal Corp.
RHODE ISLAND	Blue Cross/Blue Shield	
SOUTH CAROLINA	Blue Cross/Blue Shield	
SOUTH DAKOTA	Blue Cross/Blue Shield	
TENNESSEE	Equitable	Informatics, Inc.
TEXAS	Blue Cross/Blue Shield	
UTAH	Blue Cross/Blue Shield	
VERMONT	Blue Cross/Blue Shield	
VIRGIN ISLANDS	Blue Cross/Blue Shield	
VIRGINIA	Travelers	
WASHINGTON	Blue Cross/Blue Shield	
WEST VIRGINIA	Nationwide	E.D.S. Federal Corp.
WISCONSIN	Blue Cross/Blue Shield	
WYOMING	Equitable	Informatics, Inc.

APPENDIX F: MEDICAID FISCAL INTERMEDIARIES/AGENTS AND HEALTH INSURING AGENCIES

APPENDIX F

MEDICAID FISCAL INTERMEDIARIES/AGENTS AND HEALTH INSURING AGENCIES

STATE	NAME OF FISCAL AGENT(S) OR HEALTH INSURING AGENCIES	TYPES OF CLAIMS HANDLED
ALABAMA	Blue Cross/Blue Shield of Alabama	All services.
ALASKA	Delta Dental Plan of Alaska Incorporated	Dental.
ARIZONA	No Medicaid Program	
ARKANSAS	Arkansas Blue Cross/Blue Shield	
CALIFORNIA	Computer Sciences Corporation (CSC)	All services.(1)*
COLORADO	Colorado Hospital Service, Incorporated	All claims except drugs.
	Colorado Medical Service, Incorporated (Blue Cross/ Blue Shield)	
CONNECTICUT	In-house	
DELAWARE	Blue Cross/Blue Shield of Delaware, Incorporated	All services.
DISTRICT OF COLUMBIA	In-house	
FLORIDA	System Development Corporation (SDC)	All services including payment of Part A and B deductible and co-insurance. (2)*
	Integrated Services, Incorporated	
GEORGIA	In-house	
GUAM	In-house	

* SEE NOTES AT END OF APPENDIX F

APPENDIX F (CONT.)

MEDICAID FISCAL INTERMEDIARIES/AGENTS AND HEALTH INSURING AGENCIES

STATE	NAME OF FISCAL AGENT(S) OR HEALTH INSURING AGENCIES	TYPES OF CLAIMS HANDLED
HAWAII	Hawaii Medical Services Association (Blue Cross/ Blue Shield)	All services.
IDAHO	Delta Dental Plan of Idaho, Incorporated	Dental.
	Electronic Data Systems Federal (ESDF)	All other services.
ILLINOIS	Health Care Service Corporation (Blue Cross)	Crossover claims for Medicare Part A services (Inpatient hospital services only).
INDIANA	Blue Cross/Blue Shield of Indiana	All services.
IOWA	Blue Cross/Blue Shield of Iowa	All services except ICFs.
KANSAS	Kansas Hospital Service Association, Incorporated (Blue Cross) and Kansas Blue Shield	All services except ICFs and SNFs; also handles Medicare SNF crossover claims.
KENTUCKY	In-house	
LOUISIANA	Electronic Data Systems Federal (EDSF)	All services.
MAINE	Paid Prescriptions	Drugs.
	Blue Cross	Crossover claims for Medicare Part A services.
MARYLAND	In-house	

APPENDIX F (CONT.)

MEDICAID FISCAL INTERMEDIARIES/AGENTS AND HEALTH INSURING AGENCIES

STATE	NAME OF FISCAL AGENT(S) OR HEALTH INSURING AGENCIES	TYPES OF CLAIMS HANDLED
MASACHUSETTS	Blue Cross/Blue Shield of Massachusetts	Crossover claims for Medicare Part A and B; services for those over 65.
	Pilgrim Health Applications, Incorporated	All services including drugs, dental, and durable medical equipment.
MICHIGAN	In-house	
MINNESOTA	In-house	
MISSISSIPPI	Blue Cross/Blue Shield of Mississippi, Incorporated	All services.
MISSOURI	In-house	
MONTANA	Dikewood Corporation	All services.
NEBRASKA	In-house	
NEVADA	Nevada Blue Shield	All services.
NEW HAMPSHIRE	In-house	
NEW JERSEY	Hospital Service Plan of New Jersey (New Jersey Blue Cross)	Inpatient and outpatient hospital (3)*, and drugs.
	Prudential Insurance Company of America	All services, including some hospital (3)*, except drugs, SNFs, ICFs, and institutions for tuberculosis and mental disease.
NEW MEXICO	Electronic Data Systems Federal (EDSF)	All services.

* SEE NOTES AT END OF APPENDIX F

APPENDIX F (CONT.)

MEDICAID FISCAL INTERMEDIARIES/AGENTS AND HEALTH INSURING AGENCIES

STATE	NAME OF FISCAL AGENT(S) OR HEALTH INSURING AGENCIES	TYPES OF CLAIMS HANDLED
NEW YORK	The Bradford National Corporation	Clinics and physicians. Drug claims scheduled to enter system March 1978; inpatient hospital, SNF, ICF, HIP, and HMO in June 1978. All other claims in September 1978.
NORTH CAROLINA	Electronic Data Systems Federal (EDSF)	All services except drugs.
	The Computer Company (TCC)	Drugs.
NORTH DAKOTA	Blue Cross/Blue Shield of North Dakota	Crossover claims for Medicare Part A and B; services for recipients 65 and over.
OHIO	In-house	
OKLAHOMA	In-house	
OREGON	In-house	
PENNSYLVANIA	Capital Blue Cross (4)*	All pharmaceutical, medical supplies, equipment and prosthesis devices.
	Inter-County Hospitalization Plan, Inc. (4)*	Inpatient hospital claims for Philadelphia area (Blair, Chester, and Montgomery Counties, etc.).
	Pennsylvania Blue Cross (4)*	Other inpatient hospital claims.

* SEE NOTES AT END OF APPENDIX F

MEDICAID FISCAL INTERMEDIARIES/AGENTS AND HEALTH INSURING AGENCIES

STATE	NAME OF FISCAL AGENT(S) OR HEALTH INSURING AGENCIES	TYPES OF CLAIMS HANDLED
PENNSYLVANIA (contd)	Blue Shield (4)*	Physicians inpatient care (medical and surgical) and emergency room services.
PUERTO RICO	In-house	
RHODE ISLAND	In-house	
SOUTH CAROLINA	Blue Cross/Blue Shield of South Carolina	All services except in-patient and outpatient hospital, drugs, SNFs and ICFs.
SOUTH DAKOTA	Associate Hospital Services (Blue Cross)	Inpatient hospital and home health.
TENNESSEE	E.D.S. Federal Corp.	All services including payment of Parts A and B coinsurance and deductible.
TEXAS	National Heritage Insurance Company (Electronic Data Processing, Inc.)	All services except dental services recognized under Medicare; drugs, SNFs, ICFs, crossover claims.
UTAH	Delta Dental Corporation	Dental.
VERMONT	New Hampshire/Vermont Hospitalization Service (Blue Cross/Blue Shield)	All services except SNFs and ICFs.
VIRGIN ISLANDS	In-house	
VIRGINIA	The Computer Company (TCC)	All services.
WASHINGTON	E.D.S. Federal Corp.	All services.

* SEE NOTES AT END OF APPENDIX F

APPENDIX F (CONT.)

MEDICAID FISCAL INTERMEDIARIES/AGENTS AND HEALTH INSURING AGENCIES

STATE	NAME OF FISCAL AGENT(S) OR HEALTH INSURING AGENCIES	TYPES OF CLAIMS HANDLED
WEST VIRGINIA	The Computer Company (TCC)	
WISCONSIN	E.D.S. Federal Corp.	All services.
WYOMING	Wyoming Dental Services Incorporated	Dental.

(1) Shift from Electronic Data Systems Federal (EDSF) first quarter 1980.

(2) Medicare crossover claims are for recipients who are eligible for both Medicare and Medicaid. Medicare benefits consist of two parts. Part A, or hospital insurance, covers inpatient hospital and posthospital care. Part B, or medical insurance, covers physicians, home health, outpatient hospital, therapy, medical equipment and supplies and some other services. Medicaid pays for those costs not covered by Medicare: that is, the deductible and co-insurance under Part A and Part B.

(3) Hospitals may contract to send their claims to either Fiscal Agent.

(4) These Fiscal Agents only do claims processing. Verification of the recipient eligibility and payment of claims are handled by the State.