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Health Care Expenditures in Maine 1978 : A Funds Flow Analysis

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HEALTH CARE EXPENDITURES MAINE 1978

August, 1981
Maine Department of Human Services
Bureau of Health Planning and Development

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HEALTH CARE EXPENDITURES

IN MAINE

1978

A Funds Flow Analysis

by

Bruce Armstrong, Research Consultant

Maine Department of Human Services
Bureau of Health Planning and Development
Division of Data and Research

August, 1981

PREFACE

Health Care Expenditures, Maine 1978^{1/} is part of an ongoing series of reports designed to provide an overview of the flow of funds through the health care delivery system in Maine. Previous reports^{2/} included data for more than one year juxtaposed with similar data for the U.S. and Rhode Island. This report is limited to data for Maine in 1978.

Trends in Health Care Expenditures, Maine 1974-1978, scheduled to be published concurrently with this report, contains revised data^{3/} for Maine in the years 1974-1977 plus data from this report. These data are presented with similar data for the U.S.

This report was prepared by Bruce Armstrong, Research Consultant, under the general supervision of Ellen Naor, Director, Division of Data and Research. Sue Whitley and Barbara Webster typed the report and helped prepare the charts contained within it.

^{1/} All data in this publication have been adjusted to calendar years.

^{2/} Health Care Expenditures, Maine 1974-1975. September, 1979.
Health Care Expenditures, Maine 1976-1977. October, 1980.
Health Care Expenditures, Maine 1974-1979. November, 1980.

^{3/} The revisions were based on figures considered to be more reliable than the data previously gathered. The original methodology was applied to the new data for 1974-1978 and to data for this publication. (For complete methodology see Health Care Expenditures, Maine 1974-1975, Appendix A.)



HIGHLIGHTS

In 1978 the total Maine personal health expenditures were \$778 million. This compares to a total of \$681 million in 1977.

Per capita personal health expenditures in 1978 were \$712.70, an increase of 13.5 percent over 1977 levels.

Per capita health expenditures as a percent of per capital personal income was 11.3 percent, up from 10.9 percent in 1977.

Hospitals were the largest expenditure item: 41.9 percent of all health expenditures in 1978.

Medicare and Medicaid accounted for 29.6 percent of all funding for health care services.

Of total public dollars spent on health care, 51.8 percent of the funds went for hospital expenditures.

Public sources financed 19.6 percent of all nursing home expenditures.

Consumer out-of-pocket payments accounted for 30.6 percent of all sources of funds.

Third party payors accounted for 69.4 percent of every health dollar spent.

From 1974 to 1978, health expenditures in Maine increased by 62.3 percent while income increased by only 40.9 percent.



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INTRODUCTION

The National Health Planning and Development Act of 1974¹ required that the Secretary of the Department of Health and Human Services² establish and issue, to each state, guidelines concerning "the appropriate supply, distribution and organization of health resources".³ The law also required the Secretary to establish an agreement with the Governor of each state to designate a State health planning and development agency to implement and maintain the guidelines. In Maine the Department of Human Services was agreed on as the designated State Agency. The duties of the "Agency" were then allocated within the Department of Human Services to the Bureau of Health Planning and Development.

One of the requirements established by the guidelines was to create a system which would demonstrate "that increases in cost of the provision of health care have been restrained."⁴ A method known as funds flow analysis was adopted by the Bureau to determine (1) the total investment for health services, (2) the proportion spent for different services, and (3) the sources of financing for these services.

By cross-tabulating expenditures and sources of funds, the funds flow analysis will answer some basic questions:

What is the total investment for health care in Maine?

What major health services are we buying?

How are the services financed - who pays?

What are the various proportions for different services,
and for different sources of funds?

¹Originally P.L. 93-641; amended by P.L. 96-79 "Titles XV and XVI of the Public Health Service Act as Amended by the Health Planning and Resources Development Amendments of 1979" (Washington, D.C.: Government Printing Office, 1979).

²Formerly the Department of Health, Education and Welfare.

³P.L. 96-79, Sec. 1501(b)1.

⁴P.L. 96-79, Sec. 1535(c)7.

What are the trends in health expenditures?

What is the relationship between health costs and the income of Maine residents?

How do health expenditures in Maine compare to those of other states and the nation?

Used as a data base, a funds flow analysis can be useful in analyzing the fiscal impact of policy decisions on a broad level. Attempts can be made to identify those costs involved with gross changes in services (acute hospital care, nursing homes, etc.) and roughly measure the impact on the sources of funds. This approach is analogous to the financial management of a business entity. One must study the business operation as a whole as well as its major components in order to make basic management decisions. In addition, data refinement and further analysis of individual components will enhance the value of such undertakings. A funds flow analysis in itself can highlight or flag certain areas that might deserve further study. As component breakdowns are made, gaps existing in the financing system may be exposed.

Along with providing basic data for planners, funds flow analysis can serve as a valuable educational tool for providers, legislators, other public officials, and the public. It is one means of viewing a complex system, characterizing it on a fundamental financial level. As in any educational model, however, care must be exercised in clearly establishing definitions of the data to avoid misinterpretation.

Perhaps the most important contribution funds flow analysis can make in addressing cost containment and accessibility is at that point where expenditures/source data link to utilization statistics. It is here that one can begin to focus on cost containment. This economic evaluation of health services can provide the information with which one can assess the appropriateness of expenditure levels, identify a specific population's ability to pay, identify funding priorities, and review reimbursement policies.

DEFINITIONS

The following definitions used in this analysis for the classification of expenditures and sources are basically adapted from those used by the Health Care Financing Administration which reports national expenditures. Please note that this report excludes non-personal expenditures such as construction, research and manpower training. Also excluded in our classification are expenditures related to boarding care and mental retardation custodial care.

Classification of Types of Health Expenditures

1. Hospitals

Funds expended for medical services delivered in public and private institutions licensed as hospitals. Includes hospital based salaried physicians. Excludes Home Health Agencies, SNFs, ICFs, and ambulance service that are classified elsewhere.

2. Physicians

Expenditures for services of all licensed, active M.D.'s and D.O.'s, excluding hospital based physicians and state and federally employed physicians.

3. Dentists

Expenditures for services of all licensed, active dentists, excluding state and federally employed dentists.

4. Other Professionals

Funds expended for private duty nurses, chiropractors, optometrists, and other undesignated health professionals as defined by the Internal Revenue Service. Excludes a portion of optometrists' expenditures for eyeglasses.

5. Drugs

Expenditures for all prescription, non-prescription drugs, and drug sundries. Excludes drugs provided in hospitals, nursing homes, and physician offices as these drugs are included in those categories.

6. Eyeglasses and Appliances

Expenditures for outpatient eyeglasses, contact lens, and related supplies dispensed by optical goods stores. Includes optometrists receipts for eyeglasses. Also expenditures for braces or other orthopedic devices.

7. Nursing Home Care

Expenditures for both private and public facilities certified by Medicare and/or Medicaid as intermediate or skilled nursing. Includes all hospital based SNFs and ICFs. Excludes boarding care and mental retardation facilities.

8. Prepayment and Administration

Prepayment expenditures are defined as the difference between earned premium income and benefit expenditures of private insurers.

Administrative expenses are those costs associated with federal and state health insurance programs. Includes administrative expenses of Medicare, Medicaid, Workmen's Compensation, and the Bureau of Insurance.

9. Government Public Health Activities (G.P.H.A.)

This category is composed of funds expended by the state and local governments other than those expenditures that are actually sources of funds for the other categories (such as vendor payments and grants to facilities and organizations). G.P.H.A. includes all "in house" and direct consumer health service expenditures of the Department of Human Services and Mental Health and Corrections, as well as a portion of local government expenditures.

10. Other Health Services

Included in this category are expenditures for the following:

- Ambulatory Care Centers
- Community Mental Health Centers
- Private Ambulance Service
- Home Health Agencies
- Industrial In-plant Health Services
- Military
- Schools, Colleges
- Family Planning
- Other Community Health Services

Classification of Sources of Funds

A. Public Sources

1. Federal Funds

- a. Medicare
 - (1) Part A Hospital Insurance
 - (2) Part B Supplementary Medical Insurance
- b. Medicaid
- c. Defense Department - Military expenditures
- d. Veterans Administration - Hospital
- e. Federal Grants to State Agencies
- f. Direct Grants to Facilities and Organizations

2. State Funds

- a. Medicaid
- b. Provider payments under other public programs
- c. State institutions
- d. Direct grants
- e. Other Health Services: Dep't. of Human Services, Dep't. of Mental Health and Corrections, Dep't. of Education

3. Local Funds

- a. Municipal Health Departments
- b. Clinics
- c. Municipal Ambulance
- d. Other Health Services
- e. Grants

B. Private Sources

1. Private Insurance

- a. Blue Cross/Blue Shield
- b. Commercial Insurance
 - (1) Accident and Health
 - (2) Workmen's Compensation
 - (3) Automobile Liability

2. Federal Private Insurance

- a. Medicare Part B financed by consumer premiums
- b. Federal Employees Program (FEP)
- c. Civilian Health and Medical Program of the Uniform Services (CHAMPUS)

3. Consumer and Other

- a. Industrial In-plant
- b. Philanthropy
- c. Direct consumer out-of-pocket - This is a residual category, derived from subtracting estimates of all other known sources of funds. Consumer out-of-pocket represents 99 percent of the Consumer and Other category.

HEALTH CARE EXPENDITURES

Maine, 1978

Table 1
HEALTH EXPENDITURES BY TYPE OF EXPENDITURE AND SOURCES OF FUNDS
Maine, 1978
\$(000's)

Type of Expenditure	Total	1978 Source of Funds						
		Public			Private			
		Total Public	Federal	State and Local	Total Private	Federal Insurance	Private Insurance	Consumer and Other
	777,911	325,089	252,198	72,891	452,822	22,763	192,021	238,038
Hospitals	326,318	168,547	143,551	24,996	157,771	9,637	117,038	31,096
Physicians	131,542	26,328	21,969	4,359	105,214	11,474	40,039	53,701
Dentists	35,256	2,328	1,616	712	32,928	-	3,651	29,277
Other Professionals	15,953	2,581	2,349	232	13,372	375	2	12,995
Drugs and Sundries	64,551	7,442	5,156	2,286	57,109	68	2,077	54,964
Eyeglasses & App.	15,612	664	487	177	14,948	-	-	14,948
Nursing Home Care	97,154	63,576	42,905	20,671	33,578	29	8	33,541
Prepayment/Admin.	37,127	9,933	6,722	3,211	27,194	246	26,948	-
GPHA*	17,405	17,405	11,252	6,153	-	-	-	-
Other Health Services	36,993	26,285	16,191	10,094	10,708	934	2,258	7,516

*Government Public Health Activities

HEALTH EXPENDITURES

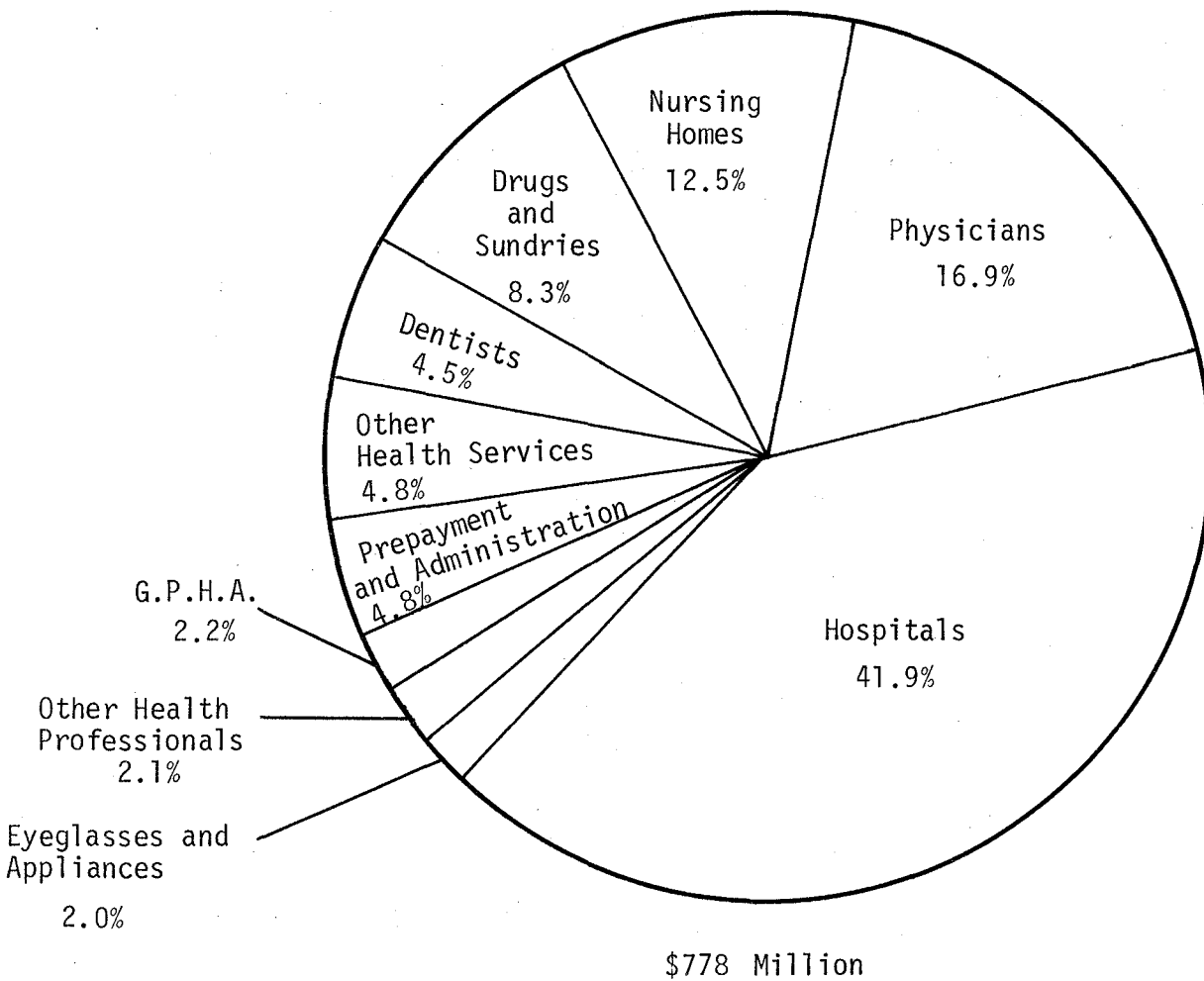
Table 1 shows the total flow of funds through the health delivery system for 1978. Of the total expenditures of \$778 million, hospitals accounted for \$326 million, followed by physicians at \$132 million, and nursing home care at \$97 million. Of the total sources of funds, federal was the largest at \$252 million, followed by consumer and other expenditures of \$238 million.

In this same table we can look at funding sources for each type of expenditure. For example, of total hospital expenditures of \$326 million, public sources accounted for \$169 million while private sources funded \$158 million. Or, if we look at nursing home care expenditures of \$97 million, almost one-half or \$43 million was financed by federal dollars.

Another way of viewing this table is to look at the distribution of a specific funding source. Of total consumer and other sources of funds of \$238 million, \$55 million went for drugs and sundries and \$54 million went for physician services. State and local funding of \$73 million was expended foremost to hospitals at \$25 million, followed by nursing home care at \$21 million.

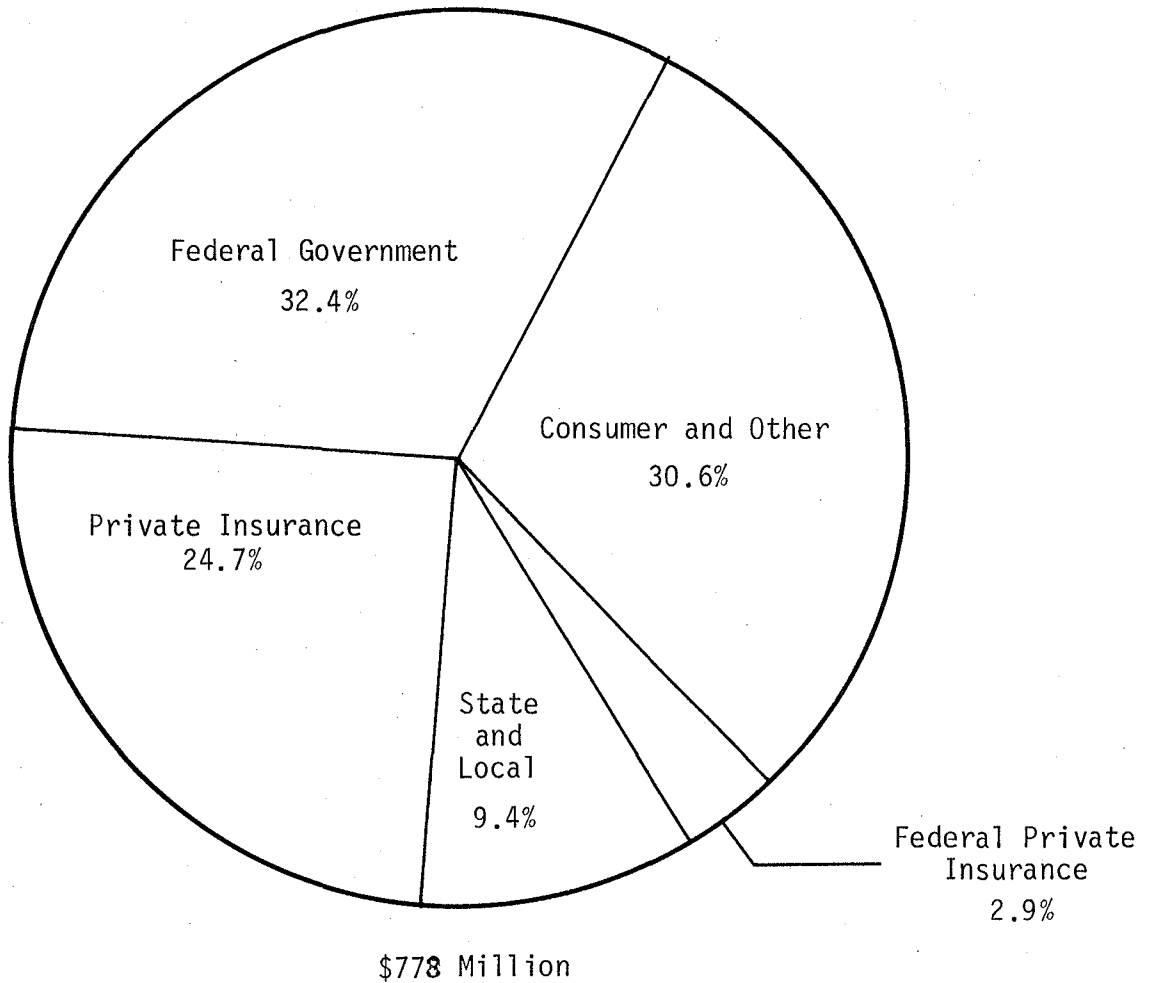
Figures 1 and 2 on the next two pages illustrate the percentage breakdown by expenditure types and sources of funds.

Figure 1
 Distribution of Health Expenditures, by Type of Expenditure
 Maine, 1978



The above figure is a graphic representation of the relative distribution of health expenditures by type of expenditure. In 1978, hospitals were the largest expenditure item at 41.9 percent.

Figure 2
Distribution of Health Expenditures, by Source of Funds
Maine, 1978



Looking at the relative distribution of the sources of funds for health expenditures in 1978, the federal category was the largest funding source at 32.4 percent.

Table 2
 HEALTH EXPENDITURES BY TYPE OF EXPENDITURE AND SOURCES OF FUNDS
 Maine, 1978
 Percent of Expenditure Financed by Specified Source of Funds

Type of Expenditure	% Total	1978 Source of Funds						
		Public			Private			
		Total Public	Federal	State and Local	Total Private	Federal Insurance	Private Insurance	Consumer and Other
	100	41.8	32.4	9.4	58.2	2.9	24.7	30.6
Hospitals	100	51.7	44.0	7.7	48.3	3.0	35.9	9.5
Physicians	100	20.0	16.7	3.3	80.0	8.7	30.4	40.8
Dentists	100	6.6	4.6	2.0	93.4	-	10.4	83.0
Other Professionals	100	16.2	14.7	1.5	83.8	2.4	-	81.5
Drugs and Sundries	100	11.5	8.0	3.5	88.5	0.1	3.2	85.2
Eyeglasses and App.	100	4.3	3.1	1.1	95.8	-	-	95.8
Nursing Home Care	100	65.4	44.2	21.3	34.6	-	0.1	34.5
Prepayment/Admin.	100	26.8	18.1	8.7	73.3	0.7	72.6	-
GHPA*	100	100.0	64.7	35.3	-	-	-	-
Other Health Services	100	71.0	43.8	27.2	29.0	2.5	6.1	20.3

*Government Public Health Activities

SOURCES OF FUNDS

Table 2 displays the percent of each type of expenditure financed by the specific source of funds for 1978. For example, of total hospital expenditures, 44.0 percent were financed by federal sources, 7.7 percent by state and local, 35.9 percent by private insurance, 3.0 percent by Federal private insurance, and 9.5 by consumer and other. Unlike hospitals, only 16.7 percent of expenditures for physician services were funded by federal dollars, while consumer and other sources accounted for 40.8 percent of physician expenditures.

Nursing home care was financed primarily through public sources (65.4 percent). In contrast, it is interesting to note that expenditures for drugs and sundries were financed by only 11.5 percent through public sources and 85.2 percent by consumer and other.

Another way to view Table 2 is to look at a specific source of funds. While consumer and other financed 30.6 percent of total health expenditures, this source accounted for only 9.5 percent of hospital expenditures, but 95.8 percent of eyeglasses and appliances. Private insurance financed 35.9 percent of hospital expenditures and 30.4 percent of physician expenditures, but only 0.1 percent of nursing home care.

A graphic representation of the sources of funds for hospitals, physicians, nursing homes and drugs and sundries appears in Figures 3 through 6 on the following pages.

Figure 3
Source of Funds for Hospital Expenditures
Maine, 1978

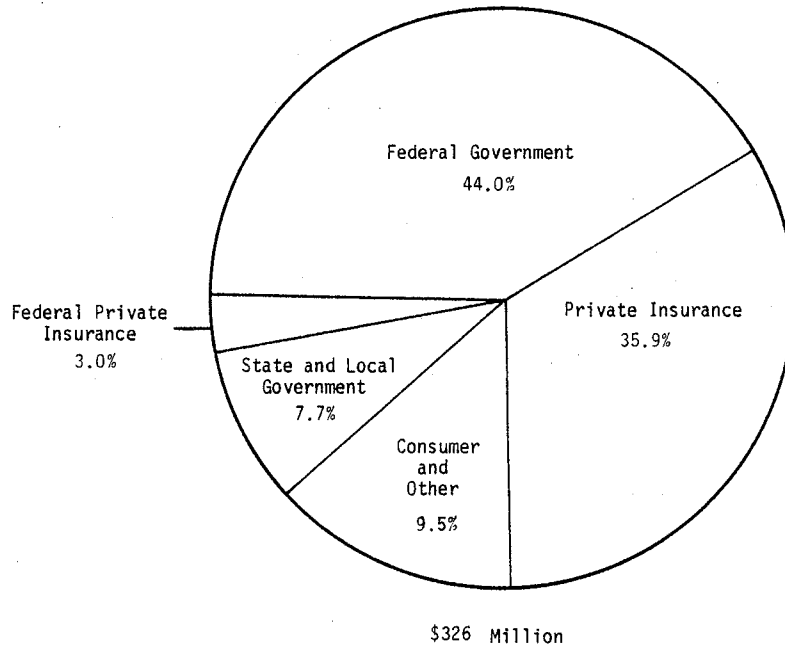


Figure 4
Source of Funds for Physician Expenditures
Maine, 1978

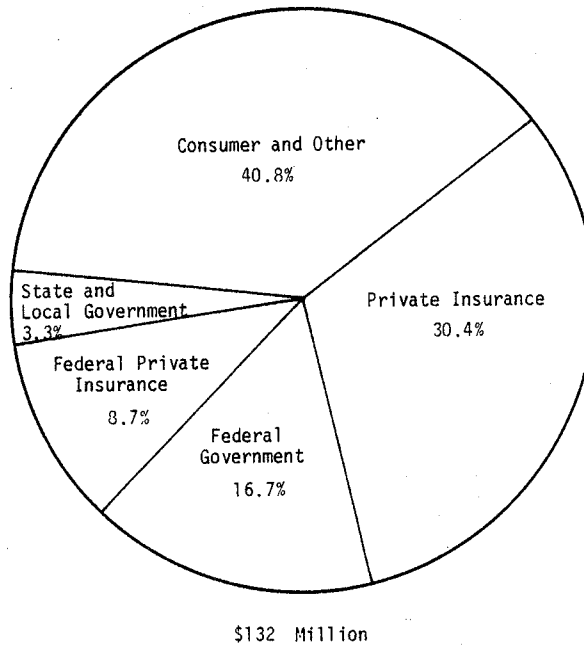


Figure 5
Source of Funds for Nursing Home Expenditures
Maine, 1978

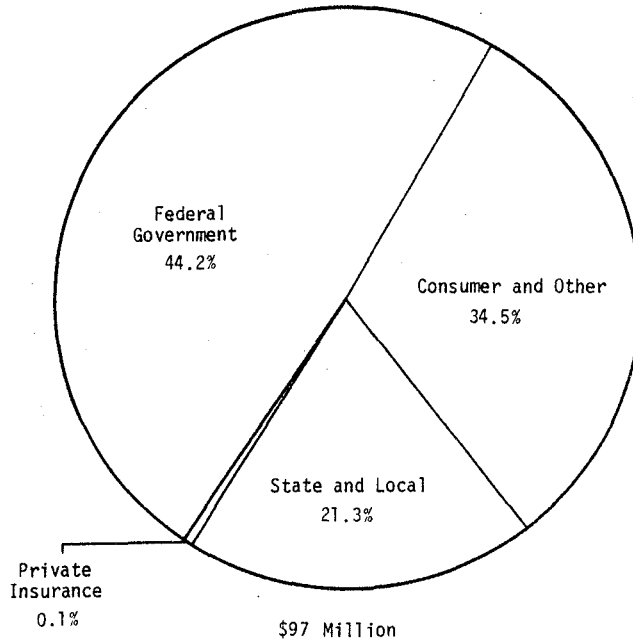


Figure 6
Source of Funds for Drugs and Sundries Expenditures
Maine, 1978

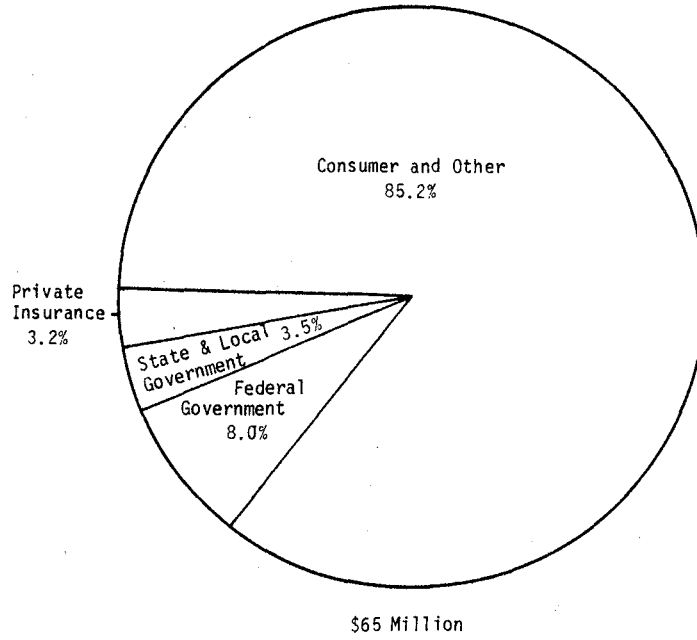


Table 3
 HEALTH EXPENDITURES BY TYPE OF EXPENDITURE AND SOURCES OF FUNDS
 Maine, 1978
 Percent of Funding Source by Type of Expenditure

Type of Expenditure	% Total	1978 Source of Funds						
		Public			Private			
		Total Public	Federal	State and Local	Total Private	Federal Insurance	Private Insurance	Consumer and Other
	100	100	100	100	100	100	100	100
Hospitals	41.9	51.8	56.9	34.3	34.8	42.3	61.0	13.1
Physicians	16.9	8.1	8.7	6.0	23.2	50.4	20.9	22.6
Dentists	4.5	0.7	0.6	1.0	7.3	-	1.9	12.3
Other Professionals	2.1	0.8	0.9	0.3	3.0	1.6	-	5.5
Drugs and Sundries	8.3	2.3	2.0	3.1	12.6	0.3	1.1	23.1
Eyeglasses and App.	2.0	0.2	0.2	0.2	3.3	-	-	6.3
Nursing Home Care	12.5	19.6	17.0	28.4	7.4	0.1	-	14.1
Prepayment/Admin.	4.8	3.1	2.7	4.4	6.0	1.1	14.0	-
GHPA*	2.2	5.4	4.5	8.4	-	-	-	-
Other Health Services	4.8	8.1	6.4	13.8	2.4	4.1	1.2	3.2

*Government Public Health Activities

TYPE OF EXPENDITURE

Table 3 shows the distribution of each funding source to each expenditure type. In other words, it shows where each source allocated its dollars. For example, consumer and other spent 13.1 percent of their health care dollars on hospitals, 22.6 percent on physician, 12.3 percent on dentists, and so forth. Private insurance, on the other hand, expended 61.0 percent on hospitals, 20.9 percent on physicians, and 1.9 percent on dentists.

It is interesting to note where federal dollars were spent in comparison to state and local dollars. Of all federal expenditures, 56.9 percent went for hospitals while 34.3 percent of state and local dollars went for hospitals. And while more than one quarter or 28.4 percent of state and local expenditures went for nursing home care, only 19.6 percent of federal dollars were expended on this category.

The distribution of each funding source is presented graphically starting with Figure 7 below.

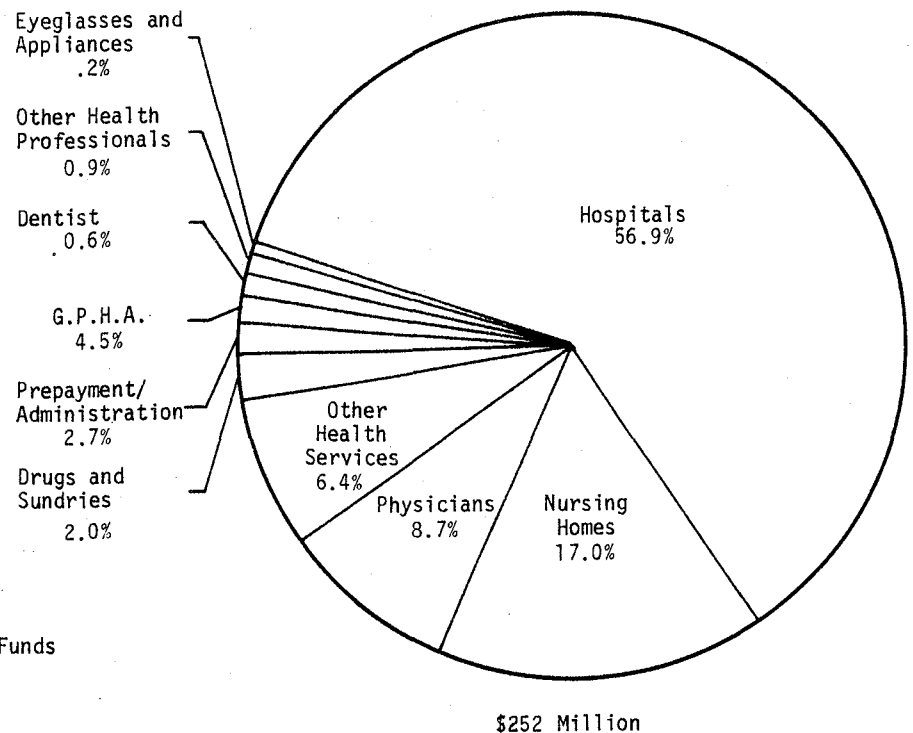


Figure 7.
 Distribution of Federal Sources of Funds
 for Health Care Expenditures
 Maine, 1978

Figure 8
 Distribution of State and Local Government Source
 of Funds for Health Care Expenditures
 Maine, 1978

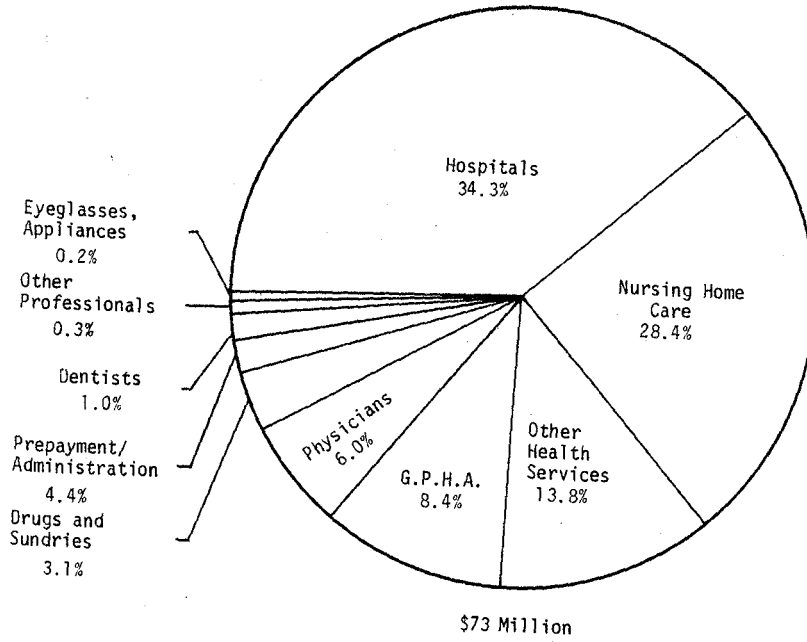


Figure 9
 Distribution of Federal Private Insurance
 Funds for Health Care Expenditures
 Maine, 1978

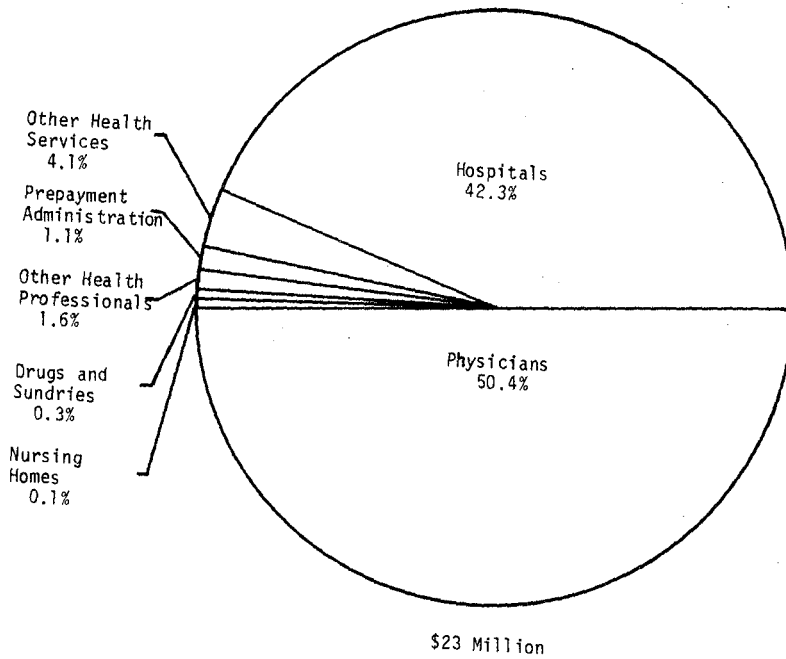


Figure 10
 Distribution of Private Insurance Funds
 for Health Care Expenditures

Maine, 1978

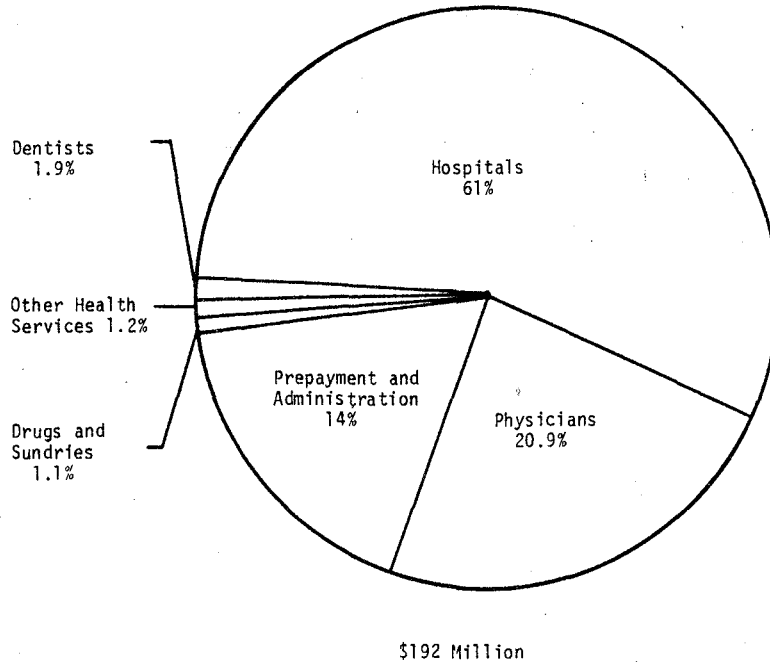
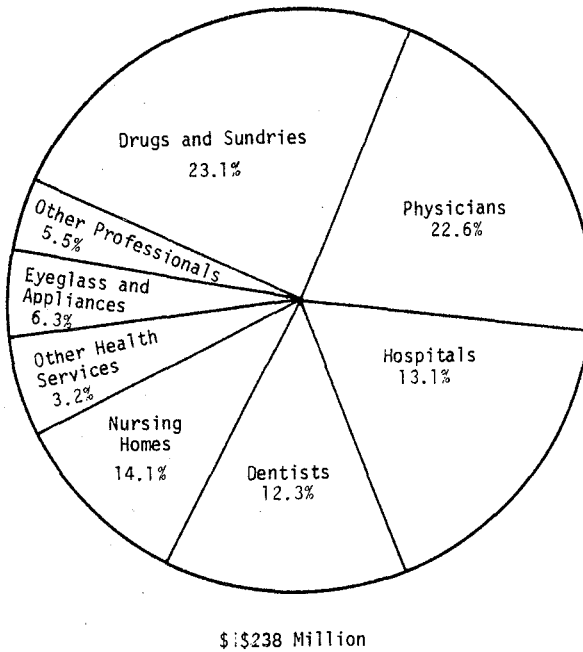


Figure 11
 Distribution of Consumer and Other Funds
 for Health Care Expenditures

Maine, 1978



COMPARISON OF MAINE AND U.S. PER CAPITA EXPENDITURES

The preceding tables and graphs have described health care expenditures for Maine in 1978; the next two tables provide superficial comparisons with the U.S.^{1/} for 1978 and Maine in 1977.

If no further data were provided, Table 4 could suggest that health care expenditures in Maine are, in most categories, less expensive than the U.S..

But, when compared to per capita income -

1978 Maine \$6,335^{2/}

1978 U.S. \$7,840^{3/}

-the numbers can be seen in a different light and any conclusions which one might draw from the juxtapositions of these data become tenuous at best.

This caveat is provided not to discourage the use of these data but rather to encourage judicious use of these limited comparisons.

Table 5, on the other hand, provides data which is more concrete in nature; it displays per capita expenditures and sources of funds, defines the relationship of each part as a percent of the whole (e.g. hospitals represent 41.9% of total health care expenditures) and then reports the percent of increase over 1977.

Total expenditures, for example, were 13.5% more in 1978 than they were in 1977.

The tables which provided statistics for the United States in this report did not include a category for Federal Private Insurance, so for purposes of comparison, the dollar amounts in that category for Maine were included in the Consumer and Other source of funds category.

^{1/} Source: Robert M. Gibson, "National Health Expenditures",
Health Care Financing Review, Summer, 1980.

^{2/} Maine Bureau of Economic Analysis.

^{3/} Survey of Current Business, April 1980.

Table 4

PER CAPITA HEALTH CARE EXPENDITURES AND SOURCES OF FUNDS
Maine and U.S., 1978

Expenditures	Maine	U.S.
Totals	712.70	802.81
Hospitals	298.96	339.94
Physicians	120.51	160.47
Dentists	32.30	53.31
Other Professionals	14.62	18.29
Drugs and Sundries	59.14	68.91
Eyeglasses and Appliances	14.30	17.68
Nursing Home Care	89.01	67.69
Prepayment/Administration	34.01	32.28
GPHA*	15.95	23.68
Other Health Services	33.89	20.56

Sources of Funds

Totals	712.70	802.81
Total Public	297.84	335.53
Federal	231.06	223.31
State and Local	66.78	112.22
Total Private	414.86	467.28
Private Insurance	175.92	218.35
Consumer and Other	238.93	248.93

*Government Public Health Activities

Table 5
 PER CAPITA AMOUNTS, PERCENT DISTRIBUTION AND
 PERCENT OF INCREASE SINCE 1977
 Maine, 1978

Expenditures	\$ Per Capita	% Distri- bution	% In- crease
Totals	712.70	100.0	13.5
Hospitals	298.96	41.9	12.8
Physicians	120.51	16.9	8.6
Dentists	32.30	4.5	7.9
Other Professionals	14.62	2.1	11.2
Drugs and Sundries	59.14	8.3	17.7
Eyeglasses and Appliances	14.30	2.0	10.0
Nursing Home Care	89.01	12.5	27.3
Prepayment/Administration	34.01	4.8	1.8
GPHA*	15.95	2.2	35.6
Other Health Services	33.89	4.8	11.9

Source of Funds

Totals	712.70	100.0	13.5
Total Public	297.84	41.8	10.8
Federal	231.06	32.4	9.3
State and Local	66.78	9.4	16.0
Total Private	414.86	58.2	15.6
Private Insurance	175.92	24.7	9.7
Consumer and Other	283.93	33.5	20.3

*Government Public Health Activities

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