Cost Estimates for National Health Insurance, 1948

by I. S. FALK*

Cost estimates for national health insurance based on 1945–46 price and income levels are now too low. A revision of these earlier estimates based on 1948 levels is presented in the pages that follow.

BEFORE the Social Security Board recommended health insurance, it made detailed studies of potential insurance specifications and costs. The results of these studies were made available to the Senate Committee on Education and Labor in 1946 and were the basis of a report published in July of that year.[1] The cost estimates[2] contained in that document were based on late 1945–early 1946 data and outlooks with respect to personnel, facilities, and income and price levels. Changes in price and income levels since then have, of course, made those estimates out of date.

The purpose of the present article is to present revised estimates of the probable cost of national health insurance both in its initial and early years and in later years, to express the revised insurance costs in terms of contribution rates that would be needed to finance the health insurance program, and to compare the cost estimates with the present level of private expenditures for medical care. The revised estimates are based on 1948 price and income levels.

It should be emphasized that the figures presented here do not necessarily apply to any specific legislative proposal.

Coverage and Scope of Benefits

Some comment is first indicated on the coverage and benefits assumed in the estimates, since costs cannot be estimated or projected without reference to these basic elements. The estimates have no particular meaning apart from the coverage and benefit assumptions.

The cost estimates relate only to the personal medical services that would be covered by the financial obligations of the insurance system. They do not include public expenditures financed out of general revenues for public health and related services, for mental and tuberculosis institutions, and for services furnished to the armed forces and to veterans.

The exclusion of expenditures incurred for services to veterans raises a special problem for the estimates. Nearly all these services are provided in Federal hospitals and institutions; a small proportion (especially those known as "home-town" services) is provided in localities throughout the country, through the same personnel, hospitals, and other facilities that serve the civilian population generally. If a national system of health insurance includes veterans and their dependents, there could be some shift of veterans' hospitalization and medical care, especially for non-service-connected cases. As a result, relatively more such service would come within the scope of health insurance costs and relatively less would remain outside the insurance system (furnished in Federal facilities and financed by general revenues). To the extent that this shift took place, the costs of the insurance system would be increased, but the increase would be offset by a reduction in Federal expenditures from general revenue for hospitalization and medical care of the veterans.

The coverage assumed for the insurance system is the labor force and the dependents of labor-force members. It is estimated that, with qualifying earnings of at least $150 a year and with dependency defined in terms of reliance on an earner for substantial support, about 85 percent of the population—125 million persons in 1948—could acquire protection under recent and current levels of economic activity.[3] Contracts between the insurance system and other public agencies could extend protection to many of the remaining 15 percent of the population.

The scope of the benefits is determined by the primary purpose of the program, namely, ready access for the insured population to all necessary preventive, diagnostic, and curative medical services—without financial barrier at the time the service is needed. Certain initial limitations in the scope of benefits are set by the personnel and facilities that may actually be available at the outset. For later years the estimates allow for expansion in both personnel and facilities, especially where there are now important shortages, and the scope of services is broader and the limitations are fewer and narrower.

The benefits to be provided in the initial or early years of the program to which the cost estimates apply are:

1. Physicians' services in office, home, and hospital, including both general practitioner and specialist services.

The general practitioner services to

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[1] *Medical Care Insurance: A Social Insurance Program for Personal Health Services*, Report from the Bureau of Research and Statistics, Social Security Board, to the Committee on Education and Labor, U. S. Senate, Committee Print No. 5 (79th Cong., 2d sess.), July 8, 1946.

[2] Summarized in the *Bulletin* for December 1946, pp. 17–23.

[3] About the same proportion of the population would be insured if qualified dependents were more narrowly defined to include wives, children under age 18 or totally disabled children of any age, disabled husbands, and dependent parents and if social insurance beneficiaries and their dependents were entitled to receive the health insurance benefits. These latter specifications are included in pending legislation.

be included as benefits are those which a legally qualified physician engaged in the general or family practice of medicine gives to his patients, including preventive, diagnostic, and therapeutic treatment and care and the prescribing of necessary drugs and appliances. No restriction on direct access to a general practitioner is assumed.

Specialist and consultant services, as benefits, are assumed to be available on the recommendation of the general practitioner or of an attending specialist, except as the referral requirement may be relaxed or omitted for particular fields of specialization (e. g., pediatrics and obstetrics) in which self-diagnosis and choice of specialist may be reasonably reliable.

2. Hospital and related services.

This benefit covers all necessary inpatient services for acute or semiacute illness in general or special hospitals, including the provision of bed and board in ward or in semiprivate accommodations; such medical and related services as are customarily furnished by the hospitals of an area as an accepted part of hospital care; general nursing care; special nursing care when essential to the patient's welfare; use of operating and delivery rooms and provision of anesthesia services; essential medications, dressings, and other customary supplies; laboratory, X-ray, and related auxiliary services; and essential ambulance services. The hospital benefit, at least initially, would presumably be limited to a maximum of 30 or—more probably—60 days a year.

3. Dental care.

Initially the benefits would include as complete a program for children as possible, but they would be confined to limited services for adults. The benefits for children are assumed to comprise emergency care to alleviate pain, extraction of nonrestorable teeth, and treatment of acute dental infections; periodic examinations and prophylaxis; care on a planned basis to keep the mouth healthy; and treatment of malocclusion when necessary for efficient mastication. The benefits for adults are expected to include examination and diagnosis, prophylaxis, extractions of teeth considered likely to be injurious to general health, and treatment of acute diseases of the teeth and supporting and adjacent structures.

4. Home nursing.

This benefit is defined as bedside nursing care of the sick in the home on the recommendation of the attending physician, limited, as necessary, by one method or another (e. g., by the type of illness for which care is provided, or to selected population groups, such as mothers and children, or to a maximum number of services per year, or—as a last resort—by requiring partial payments for the first or for each service in a period of illness).

5. Essential laboratory and related services, and unusually expensive prescribed medicines and appliances for nonhospitalized persons.

Laboratory service benefits include examinations or analyses of body fluids, excretions, tissues, or functional performances, for preventive, diagnostic, or therapeutic purposes. The term "laboratory services" is intended to include X-ray diagnosis and X-ray and radium therapy. Laboratory services are to be included as benefits only when provided on the direction of an attending practitioner.

Prescribed medicines and related supplies included in the benefits are restricted to those that are prescribed by physicians, dentists, and other licensed practitioners and that may involve burdensome costs. The classes of prescriptions and supplies comprehended are sera, vaccines, and other immunizing agents; expensive medicines and drugs prescribed for specific chronic diseases or long-continuing conditions; expensive antibiotics; and the like.

Appliances include eyeglasses, hearing aids, artificial limbs and members, artificial eyes, trusses, surgical corsets, braces, belts, crutches, and wheelchairs and other aids to locomotion.

6. Research and education.

This is properly not an individual benefit but a charge that might reasonably be made on the medical care insurance program for the support of research and education. Support could take the form of grants, stipends, and subsidies to professional participants in the insurance system to enable them to take postgraduate or refresher work; grants-in-aid to nonprofit agencies for the expansion of educational and training facilities in fields with personnel shortages and for the training of auxiliary personnel; and grants-in-aid to support studies, demonstrations, and experiments. The scope and content of this part of the program would be affected by other public provisions.

The principal increases in costs assumed for a later year, perhaps 5, 10, or 15 years after the start of the program, would result from expanded dental and home nursing services and possibly from a higher maximum limit on hospitalization. An increase in costs is also anticipated as the population-physician ratio is reduced, especially in States and localities that now have comparatively few practitioners. The length of the transition period from initial to later-year costs would depend on the rapidity with which shortages are overcome and maldistributions of personnel and facilities are corrected.

Basis of Cost Estimates

The estimates of national health insurance costs represent, in general, the product of the number of services expected to be used and the cost per unit or per man-year of service, increased by an allowance (5–7.5 percent) for the costs of administration additional to costs already incurred for such functions as collection of contributions and maintenance of earnings records. Utilization of personnel and facilities for the initial and early years is presumed to be at the current rate, with allowance for increased use as the economic barrier to medical services is removed. Payments to practitioners, institutions, and vendors of commodities are calculated so as to approximate average current rates for the same or comparable services and goods in noninsurance practice. The aim in each class of benefit is to use rates that would yield an income to the supplier at least equal, on the average, to his income today, and to provide increased incomes for practitioners, hospitals, and others providing more services than they do currently or improved or more expensive services.

The estimates relate to 1948 price and income levels. They were developed by applying to the 1945–46 estimates factors reflecting changes since then in national income and in

Table 1.—*Summary of illustrative health insurance costs at 1948 price and income levels* [1]

Assumed coverage: members of labor force and their dependents—about 125 million persons]

Item	Amount (in billions)		Percentage distribution	
	Initial or early year	195X	Initial or early year	195X
Total	$4.66	$6.31	100.0	100.0
Physicians' services	2.28	2.53	48.9	40.1
Hospital services	1.35	1.75	29.0	27.7
Dental care	.47	1.12	10.1	17.7
Home nursing	.08	.19	1.7	3.1
Laboratory, medicines, and appliances	.47	.60	10.1	9.5
Research and education	.01	.12	0.2	1.9

[1] For underlying assumptions and premises, see the text and *Medical Care Insurance: A Social Insurance Program for Personal Health Services*, Report from the Bureau of Research and Statistics, Social Security Board, to the Committee on Education and Labor, U. S. Senate, Committee Print No. 5 (79th Cong., 2d sess.), July 8, 1946. Estimates in table include administrative costs.

consumer prices. The earlier estimates may be found in the 1946 report, which also carries a detailed discussion of the basis of the original estimates.

The 1945–46 cost data were prepared early in 1946, on the basis of late 1945–early 1946 price and income data. Between 1945–46 and 1948, the population increased 3.6 percent, the consumers' price index of the Bureau of Labor Statistics went up 28 percent, and the national income, 25 percent. Revisions of the 1945–46 cost estimates, it was recognized, would have to take these changes into account. Several methods were tested, and selections made among them for use with respect to specific cost items.

One approach assumed that the cost of each type of service or commodity had increased in the same proportion that prices for identical or related items had risen in the consumers' price index. The items for which price changes were shown in the index were general practitioner services, hospital services, dental care and laboratory services, medicines, and appliances. Comparison of the results with other data suggested that use of the index (which refers to price per unit of service and cannot take account of number of services) yielded estimates which probably understated the increase in the incomes of physicians and dentists and overstated the increase in hospital costs. For laboratory services, medicines, and appliances, however, the index seemed a more reliable guide to changes than anything else available and was therefore used for deriving 1948 figures for this class of benefits.

Another method tested was the application to 1945–46 cost estimates of the percentage increase between 1945–46 and 1948 in personal consumption expenditures for medical care, as estimated by the Department of Commerce. This approach seemed most applicable to the hospital care item and is the basis for the estimate of hospital service costs in 1948.

Still another approach was to assume that costs went up at about the same rate as the national income, in the aggregate. The costs of physicians' services, dental care, and home nursing, as developed in 1946, represent substantially the estimated average income of practitioners multiplied by the full-time equivalent number of such practitioners participating in the program. It therefore seemed appropriate to use the percentage changes in national income to derive the 1948 costs for these three items.

The last cost item—research and education—was also increased in proportion to the change in national income.

The cost estimates for a later year, designated in the tables as "195X," represent percentage increases over the 1948 figures. The percentages, varying among benefits, were taken directly from the 1946 report. Thus, the 195X costs bear the same relation to the early-year costs in these revised estimates as they did in the 1945–46 estimates.

The estimates of aggregate health insurance costs were derived by applying to the number of persons in the labor force and their dependents the per capita costs calculated for the several benefits. It was assumed that the 85 percent of the population covered by the insurance system is like the total population with respect to average medical care needs.

Estimates of Total Costs

A national health insurance program providing the benefits listed earlier would probably entail an annual expenditure in its initial or early years of approximately $37.29 per person covered, or $4.7 billion at 1948 price and income levels, when coverage is defined as inclusive of the total labor force and the dependents of labor-force members (table 1). With this coverage the program would provide substantial protection against medical care costs for approximately 85 percent of the population—in mid-1948, some 125 million persons. This cost estimate, at 1948 price and income levels, for 125 million persons is about a third (36 percent) larger than the corresponding figure, $3.45 billion, at 1945–46 levels for 120 million persons.

Cost estimates for a year 5, 10, or 15 years after the beginning of the program, referred to in the tables as 195X, assume larger amounts of service and more adequate services than in the initial year, mainly as a result of increased effective demand and of

Table 2.—*Summary of illustrative per capita health insurance costs* [1]

[Price and income levels of 1945–46 and 1948]

Item	Initial or early-year costs (per capita)		195X costs (per capita)		Percentage increase between initial year and 195X
	1945–46	1948	1945–46	1948	
Total	$28.76	$37.29	$38.93	$50.47	35.0
Physicians' services	14.58	18.22	16.18	20.23	11.0
Hospital services	7.19	10.77	9.35	13.99	30.0
Dental care	3.00	3.75	7.13	8.93	138.0
Home nursing	.51	.63	1.24	1.54	143.0
Laboratory, medicines, and appliances	3.38	3.80	4.29	4.79	26.0
Research and education	.10	.12	.74	.99	[2]

[1] See table 1, footnote 1.
[2] Fixed at 2 percent of the total cost of the program for 195X.

improvements in the supply of personnel and in facilities. Some allowance is made for reduced need for certain kinds of service as conditions resulting from accumulated neglect are cleared up. The over-all increase in costs is 35 percent, but it is greater for some items than for others. At 1948 price and income levels, expenditures for 195X are estimated to approximate $6.3 billion for 125 million persons (table 1) or $50.47 per person (table 2). The total for 195X is 36 percent larger than the corresponding figure of $4.7 billion for 120 million persons at 1945–46 levels. In all these figures the population, price, and income levels have been held constant between the initial and later years, so that comparisons between costs for the initial or early year and the 195X costs will not be further complicated.

At first glance, these figures may seem large. They take on more modest proportions when seen in relation to the national income, which in 1948 was $226 billion. Estimated health insurance costs amount to 2.1 percent of this total for the initial year and 2.8 percent for a later year (table 3).

Estimates of Costs of Individual Items

Physicians' services.—At the outset, payments for physicians' services account for approximately one-half of total estimated expenditures under the health insurance program assumed here. The proportion is less—about 40 percent of the total—by 195X, when some of the other benefits that are limited at first have expanded. At 1948 price and income levels, the amount budgeted for physicians' services under a labor-force type of coverage would be nearly $2.3 billion for the initial year and over $2.5 billion for a later year. These figures are based on the country's current and prospective supply of physicians and on their average incomes, adjusted upward for an expected increase in the use of their working time. Expenditures at this level, after a deduction is made for administration, would permit, in the initial years of the program, an average payment of about $14,000 (gross) per general practitioner and about $28,000 (gross) per specialist in private practice for full-time service to insured persons.[4] A recent survey put expenses of practice at 40 percent of the average gross incomes of physicians. Under health insurance this cost should be lower. If it drops to 30 percent, the average net income of general practitioners would be about $9,800; of specialists, about $19,600. The incomes of individual practitioners would depend on the number of persons they serve and the amount and kinds of services they furnish and could presumably range up to two or two and one-half times these averages.

Hospital services.—The second largest item in the health insurance budget is hospital services, which represents over one-fourth of the total. The estimate reflects expected hospital utilization under health insurance and a unit rate calculated to cover costs for this type of care. The volume of service in general and special short-term hospitals, exclusive of Federal hospitals, averaged 1.067 days per person in the civilian population in 1945, 0.988 in 1946, 1.001 in 1947, and 0.977 in 1948. Some 15 to 25 percent of the volume of service represented care that was in excess of the 30-day maximum annual benefit that the insurance system might adopt in the early years of the program; some 5 to 10 percent if the maximum is set at 60 days in a year. On the other hand, an increase of 10 to 30 percent in the volume of hospital care may be anticipated when ability to pay is no longer a factor limiting hospital use. It is therefore reasonable to estimate the amount of insurance-compensated hospital care in the early years of the program at about 1 patient day per year per person covered. In relation to the $1.3 billion estimated for hospital care in table 1, this would permit, after allowing a deduction for administration, an average payment of about $10.25 per patient day to participating hospitals for the kinds and amounts of services covered by insurance obligations in the early years of the program.[5] The $1.7 billion budgeted for hospital care in a later year assumes an annual utilization rate of about 1.3 days per capita.

Dental care.—The limited program of dental care projected here for the early years of the insurance program would cost about $3.75 per capita, or $470 million. Laboratory services, office costs, salary costs for auxiliary personnel—constituting the usual "overhead" of the dentist in private practice—and administrative costs are estimated to take 40 percent of the total, and net payments to dentists, about 60 percent. On the basis of a net average payment of about $8,600 per dentist, an average calculated as in the case of physicians to give the practitioners an average return a little above that in private

[4] The calculation is based on an estimate of 138,000 physicians in private practice, on a full-time equivalent basis, serving the total population in 1948. The corresponding total payments to physicians, assuming coverage of the entire population, are $2.6 billion for the initial year and $2.9 billion for 195X.

Table 3.—*Summary of illustrative health insurance costs, and costs as percent of national income and earned income, at 1948 price and income levels* [1]

[Assumed coverage: members of labor force and their dependents—about 125 million persons]

Item	Initial or early year	195X
Health insurance costs (in billions):		
Total	$4.66	$6.31
All but dental and home nursing	4.11	5.00
Health insurance costs as percent of national income ($226 billion)	2.1	2.8
Health insurance costs as percent of earned income subject to the contribution rate: [2]		
Total	3.3	4.5
All but dental and home nursing	2.9	3.5

[1] See table 1, footnote 1.

[2] The percentages shown above assume that the contribution rate applies to earned income up to $4,800 per annum for an individual. With this upper limit, the total earnings subject to the contribution rate are somewhat more than $140 billion. If the individual limit on the contribution base is $4,200 instead of $4,800, the estimated earned income subject to contribution is about $2 billion less, and the corresponding percentages for the initial or early year and for 195X are 3.4 and 4.5 for "Total" costs, and 3.0 and 3.6 for "All but dental and home nursing." If the individual limit is $3,600, the estimate of earnings subject to the contribution rate is reduced about $5 billion more, and the corresponding percentages are 3.5 and 4.7, and 3.1 and 3.7, respectively.

[5] This payment is the average for inpatient services only, for ward and multiple-bed accommodations, and it applies to all kinds of general and special hospitals, including non-Federal governmental. It is about $2.75 per patient day less than the average for all hospitals (exclusive of all governmental), all kinds of accommodations, and some out-patient service costs covered by the data usually presented in the American Hospital Association *Directory* for short-term hospitals.

practice in 1948, the amount budgeted for payments to dentists in the early years of the program would enable the health insurance system to pay for the services of the full-time equivalent of about 32,000 dentists. As available personnel increases, more funds could be used to pay for dental service. The allowance for a later year assumes an increase in per capita expenditures to $8.93 and in total annual expenditures to $1.12 billion.

Home nursing.—The volume and character of home-nursing services envisaged as practicable in the early years of the program are also of a limited type, entailing an expenditure of about 63 cents per year per person covered. The amount set aside for this purpose, $79 million, less the cost of administration, would make it possible to pay for the services of about 30,800 nurses (full-time equivalent)—9,300 professional nurses, 18,500 practical nurses, and 3,000 supervisory nurses—at average annual salaries or incomes of approximately $3,000, $1,900, and $4,100, respectively. The cost estimate for a later year assumes an expanded service and per capita expenditure of about $1.54, or total costs of about $193 million.

Laboratory services, medicines, and appliances.—The $475 million item for this class of benefit in the initial-year estimate consists of $150 million for laboratory and related services, $100 million for medicines and related supplies, and $225 million for eyeglasses, optometric services, and orthopedic and prosthetic appliances. For a later year an increase of about 26 percent in expenditures for this group of benefits is assumed. These estimates are based on incomplete data on current expenditures for such purposes. Moreover, certain expenditures are excluded from the estimates—those for items considered not essential to good medical care, not a justifiable charge on the insurance system, or not adaptable to administrative or financial controls—since it is assumed that such items will not be provided as insurance benefits.

Research and education.—The allowance for research and education in the early years of the program is set, for illustrative purposes, at $14 million per annum. In a later year, 2 percent of total expenditures might be devoted to this function.

Financing the Insurance Program

Health insurance presumes a financial arrangement leaning heavily on the contributory principle, with auxiliary support out of general revenues for special functions or services to special groups in the population. What contribution rate does a program of the kind discussed in this article entail?

Earned civilian income in 1948, including the net income of self-employed persons, was $175 billion. Some limitation on the amount of an individual's earnings subject to contribution is desirable. If this upper limit is established at $4,800 a year, as suggested for old-age, survivors, and disability insurance, the base for contributions is about $145 billion. In relation to an estimated cost for health insurance of $4.66 billion for the initial year and $6.31 billion for a later year, expenditures for benefits and administration could be financed through contributions equal to 3.3 and 4.5 percent, respectively, of covered earnings. These figures apply whether the contributions are levied wholly on the insured persons, or are divided between them and their employers, or are covered in some part by Government contributions from general revenue. If dental and home-nursing benefits are excluded from the earmarked contributions and are charged to general revenues, as is sometimes proposed, the contribution rates fall to 2.9 percent for the initial year and 3.5 percent for a later year (table 3).

Upper limits other than $4,800 per annum are also under consideration in connection with old-age and survivors insurance. The approximate contribution rates that would result from limits fixed at $4,200 and $3,600 are given in table 3, footnote 2.

It should be clear, of course, that the earner's contribution would not be additional to his present outlays for medical care. Personal outlays would be largely replaced by the contributions under health insurance, especially in the later years when benefits become more comprehensive than they can be at first and substitute for a larger share of private purchases. Some individual expenditures would still be incurred to buy services not provided by the insurance system, to pay for hospital care in more expensive rooms or beyond the period to which the patient is entitled, or for drugs, medicines, and other commodities not included as benefits. This type of spending should, however, be relatively small in comparison with the amount the average person now spends for medical care. It should also be less of a burden to the extent that it is made for services or commodities that individually involve relatively small costs.

Comparison With Private Expenditures

How do anticipated disbursements under a national health insurance system compare with private spending for medical care, in the aggregate and as distributed among the several classes of expenditure?

Such a comparison can be made for 1948. The estimates of health insurance costs are those for 1948 summarized in the preceding pages. The estimates of private expenditures for medical care come from the Department of Commerce series on personal consumption expenditures,[6] with some specified adjustments. Both sets of estimates exclude expenditures for public health services, medical care furnished the armed forces and veterans, medical care under workmen's compensation, and care in mental and tuberculosis hospitals and other institutions providing long-term care.

Before the per capita comparisons in table 4 are inspected, the absolute figures deserve attention. The adjusted total for personal consumption expenditures, for the entire population in 1948, is $7.2 billion (table 4).[7] The

[6] *Survey of Current Business*, July 1949, p. 23.

[7] This total is about 33 percent above the comparable figure of $5.4 billion for 1945–46, reflecting the increases which occurred from 1945 to 1948 in private expenditures for medical care. It includes $200 million, estimated to have been spent by patients served in non-Federal government hospitals (general and special), and not included in the Department of Commerce figures; about $140 million for workmen's compensation included in Commerce figures is excluded here.

insurance cost estimates, at the price and income levels of the same year but applying only to the labor force and dependents, are $4.7 billion for an initial or early year and $6.3 billion for a later year, 195X (table 1).

The per capita comparisons in table 4 avoid differences due to the fact that the actual private expenditures, 1948, are for the total population and the insurance estimates are for a coverage of about 85 percent of the population. The private expenditures amounted to about $49 per capita; the insurance estimate for an initial or early year is about $37 (about 76 percent of the total private expenditure); for a later year (195X), however, it is slightly more than the 1948 private spending per capita.

These figures reflect many differences in the composition of the aggregates. For payments to physicians, for example, the insurance estimates include larger amounts in both the early and later-year budgets; for hospital care, they include smaller amounts at first and larger amounts later; and for drug preparations and sundries, much smaller amounts throughout. Such differences and changes result from the assumed insurance specifications and the limitations on benefits that were mentioned earlier.

Despite larger amounts budgeted for physicians under insurance than were spent in 1948 ($18.22 as against $14.77 per capita), the total per capita insurance budget for an initial or early year is less than the per capita total private expenditures — the result mainly of two differences in the two sets of figures. First, nothing comparable to the $518 million shown as private expenditures in 1948 for overhead and unexpended balances in hospital, health, and accident insurance, and for secondary or sectarian practitioners is included in the health insurance program. Second, the amount to be spent on auxiliary services and commodities (medicines, appliances, and laboratory services) is more than $1 billion lower in the insurance budget than in the Department of Commerce estimates of actual expenditures for these items. The initial health insurance expenditures are heavily concentrated on medical and hospital services, with only limited provisions for the other types of services and commodities currently purchased by the civilian population through personal expenditures.

For the later years of insurance operation the limited budgets for certain auxiliary services and commodities, and the omission of items for sectarian practitioners and for private insurance costs, offset the increased amounts budgeted for physicians, hospitals, dentists, and nurses. As a result, the per capita insurance estimate ($50.47) is, as noted earlier, only slightly more than the per capita private expenditures in 1948.

The per capita amount indicated as the probable disbursement to physicians in an initial or early year of a health insurance program is about 25 percent greater than per capita personal consumption expenditures shown for the same class of service. Since the Department of Commerce estimates of expenditures for this item include some nonpersonal payments for workmen's compensation cases and some personal disbursements for laboratory services, shown separately in the health insurance estimate, the increase for physicians in the insurance budget is relatively larger than the figures show. The difference in the two amounts comes about partly because more physicians' services per capita are assumed in the insurance estimate, and partly because physicians would not be called on to provide services without remuneration for any of the insured persons—they would receive payments through the insurance system for all the medical care they provide.

The per capita amount estimated for payments to hospitals in the initial or early years of the insurance system is 89 percent of the per capita amount calculated from personal consumption expenditures for hospital services in the Department of Commerce series (increased by $200 million for services in non-Federal governmental hospitals but not reduced for workmen's compensation payments). However, this insurance estimate compares more favorably with 1948 expenditures than these figures indicate be-

Table 4.—*Comparison of per capita private expenditures for medical care in 1948, based on Department of Commerce statistics, and estimated per capita expenditures under national health insurance at 1948 price and income levels*

Item	Personal consumption expenditures, total population		Per capita expenditures (estimated) under health insurance [2]		Ratio of health insurance estimates to actual expenditures per capita	
	Total [1] (in millions)	Per capita	Initial or early year	195X	Initial or early year	195X
Total	[3] [4] $7,157	$49.35	$37.29	$50.47	75.5	102.2
Physicians' services	2,141	14.77	18.22	20.23	123.4	137.0
Hospital services	[4] 1,764	12.17	10.77	13.99	88.5	115.0
Dental services	864	5.96	3.75	8.93	62.9	149.8
Nursing services	200	1.38	.63	1.54	45.7	111.6
Medicines, appliances, and laboratory	1,807	12.46	3.80	4.79	30.5	38.4
1. Drug preparations and sundries	1,391	9.59	.81	1.21	8.4	12.7
2. Ophthalmic products and orthopedic appliances	416	2.87	1.78	1.79	62.0	62.4
3. Laboratory	([5])	([5])	1.21	1.79	----	----
Osteopathic physicians, chiropodists and podiatrists, chiropractors, and miscellaneous healing and curing professions	273	1.88	----	----	----	----
Net payments (overhead and unexpended balance) to:						
1. Group hospitalization and health associations	88	.60	----	----	----	----
2. Accident and health insurance, mutual accident and sick benefit associations [6]	157	1.08	----	----	----	----
Student medical fees	3	.02	----	----	----	----
Research	----	----	.12	.99	----	----

[1] Data from *Survey of Current Business*, Department of Commerce, July 1949, p. 23.
[2] See table 1, footnote 1.
[3] Excludes $140 million for medical care payments under workmen's compensation.
[4] Includes $200 million (not in the source data) estimated to have been spent by patients for services in non-Federal governmental hospitals (general and special).
[5] Included in this series under either physicians or hospitals.
[6] Reduces to one-third the amount shown in the *Survey of Current Business* to omit estimated administrative expenses for cash sickness (wage loss) indemnity, death benefits, etc., which are included in the published figures but have no comparable representation in the estimated costs of health insurance.

cause it applies only to hospital services at ward or multiple-bed accommodation levels and is exclusive of out-patient services and of services for more than 60 days in a year. The personal consumption expenditures, on the contrary, include stays of all durations and in all kinds of accommodations, income from out-patient services, and amounts spent privately for laboratory work, shown elsewhere in the insurance estimate.

In other words, with the insurance system in operation, the hospitals would be expected to receive—in addition to the amount budgeted for hospital services—supplementary payments from patients and other sources for private-room care and for services beyond the maximum of 30–60 days, and from the insurance system for out-patient services. The per capita insurance budget for 195X is 115 percent of the per capita private expenditure for hospital services. In other words, after the insurance system had been in operation for a few years, payments to the hospitals for the limited insurance benefits would be substantially larger than the current per capita expenditures for all services received from the hospitals.

Estimates of insurance expenditures for dental care and for home nursing are considerably lower in the initial or early years than 1948 expenditures for these services because of the limitations placed, by reason of personnel shortages, on the kinds and amounts of such services to be provided as insurance benefits. However, the probable future insurance expenditures (195X) exceed the actual expenditures for 1948. For 195X, the insurance budget contains nearly $9 per capita for dental services, compared with less than $6 spent in 1948; and $1.54 per capita for home nursing, compared with $1.38.

Actual 1948 expenditures for drug preparations, prescriptions, and sundries are about 12 times the initial insurance estimates, because of the limitations put on these items in the assumed insurance benefits and the estimated costs. Many prescribed and all self-prescribed medicines and home remedies are excluded from the assumed insurance benefits.

The expenditure estimated for ophthalmological products (eyeglasses, for example) and orthopedic appliances is lower under the insurance program, mainly because the insurance assumptions allow only for supplies and services purchased on professional prescription and for those needed for medical reasons; they do not allow for additional costs resulting from personal inclinations as to style and aesthetic values.

Summary

A national health insurance program with liberal eligibility requirements and covering all earners and their dependents (about 85 percent of the population) would cost in its initial or early years about $4.7 billion a year at 1948 price, income, and population levels.

The benefits assumed in this estimate for the initial or early years are physicians' services in office, home, and hospital, including both general practitioner and specialist services; necessary in-patient care up to 30 or, more probably, 60 days a year for acute or semiacute illness in general or special hospitals; essential laboratory and related services and unusually expensive prescribed medicines and appliances; and limited dental and home-nursing services.

Later, as shortages and maldistributions of personnel and facilities are corrected, additional benefits may be provided, such as even more comprehensive services from physicians and hospitals and expanded dental and home-nursing services. Cost estimates for this later period, also at 1948 price and income levels, are approximately $6.3 billion a year for an insurance system covering persons in the labor force and their dependents.

The cost estimates assume (a) initial-year utilization of personnel and facilities at the current rate, with some allowance for increased use as a result of the removal of economic barriers to medical care; and (b) payments to practitioners and other suppliers of services or goods at rates equal to or higher than those in non-insurance practice today. They are based on cost estimates made early in 1946 and reflecting late 1945–early 1946 price and income levels, adjusted for price, income, and population changes between that period and the year 1948.

The initial or early-year cost of a national health insurance program covering earners and their dependents equals about 2.1 percent of 1948 national income, and could be met, at 1948 price and income levels, by contributions equal to about 3.2 percent of earnings up to $4,800 a year. In a later year, when services are expanded, costs equal about 2.8 percent of national income and could be covered by contributions of about 4.4 percent of earnings. Exclusive of the costs for initially limited and later expanding dental and home-nursing benefits, the initial or early-year costs amount to about 2.8 percent of covered earnings, and the later-year costs to about 3.4 percent.

Initial or early-year expenditures—total and per capita—for a national health insurance program would be somewhat below the level of personal consumption expenditures for all medical services and commodities. (This comparison excludes tax-supported expenditures for public health and related services, medical care provided the armed forces and veterans, workmen's compensation payments, and care furnished in mental and tuberculosis hospitals.) Even in these early years, however, more money would be spent under health insurance for physicians' services and nearly as much per capita for hospital care (and this total would be augmented for the hospitals by payments for services not included as insurance benefits). Substantially less, per capita, would be spent under the early insurance program for dental care, for home-nursing service, and for medicines and appliances. In a later insurance year, per capita expenditures under health insurance may be expected to be considerably above the present level of private spending for the services of physicians, hospitals, dentists, and nurses.