The Future Cost of Medicare and Medicaid

by

William C. Hsiao
Harvard University

Medicare and Medicaid are the principal programs with which the U.S. Government finances medical services for target populations. Medicaid finances programs for the poor population and Medicare for the aged population. People become entitled to the benefits under these programs when they meet certain eligibility requirements. The eligibility rule for Medicaid is based on family status and income and Medicare is based on age and employment record. Because of these eligibility requirements, changes in the demographic composition in the U.S. have significant impact on the number of people who may become eligible for Medicare or Medicaid benefits.

The United States has experienced a cycle of baby boom and baby bust. A rise in fertility rates which began after World War II followed by a decline that began in the later 1950's. Now the fertility rate in the U.S. still remains at the low level of about 1.8 per 1000. With the recent experience in fertility and mortality rates, we can predict quite accurately the demographic composition of the U.S. population in the next 30 years. With some extrapolation of current trends, we can make some reasonable forecasts on the demographic composition for the next 60 years. Various studies have made these demographic projections. Yet, there have been few analyses to evaluate as how the changes in the demographic composition will affect the Medicare and Medicaid programs. This paper, "The Implications of Demographic Changes for Publicly-funded Medical Insurance Costs," by McKusick, King and Mussey, makes a valuable contribution to fill the gap in our knowledge.

McKusick et al used the population projections prepared by John Wilkin (presented also in the volume) to ascertain as how the changes in the age structure and sex composition would affect the cost of the Medicare and Medicaid programs. Their findings are straightforward. By decomposing the 1980 medical costs into age groups and without adjusting for future inflation and technology changes, McKusick et al calculated the changes in expected costs between the years 1980 and 2040. Because the medical costs incurred vary by age and sex, changes in the demographic composition will affect the costs of different health care financing programs. Their study then measured the expected medical expenditure of Medicare and Medicaid as a percentage of expected taxable payroll.

McKusick et al found that the costs for Medicare and Medicaid will rise from 5.14 percent of the taxable payroll in 1980 to 9.46 percent of the taxable payroll in the year 2040, an 80 percent increase. The cause of this increase comes from two major factors. First, the population aged 65 and over is projected to increase by 165 percent, from 26 million in 1980, to 69 million in 2040. Meanwhile, the working-aged population, aged 20 to 64, is projected to increase by only 35 percent. As a result, the aged dependency ratio would increase by 90 percent. This factor alone explains largely the findings by McKusick et al.

The shift in the U.S. population is mainly due to two factors. First, the low fertility rate is currently around 1.8, which is below the population replacement rate. The central forecast produced by John Wilkin assumes the fertility rate will gradually rise to the population replacement rate of 2.1. Nevertheless, with the low fertility rate, the number of working-aged population is projected to decline as a percentage of the

total U.S. population. Second, because of the baby boom that began after World War II had lasted approximately 15 years, plus improvements in the mortality rate for the aged population, the population aged 65 and over is projected to increase drastically after the turn of the next century.

The shift in the age structure will affect the future cost of Medicare and Medicaid programs. At the same time, these programs' costs will also be affected by changes in the social and economic conditions. Moreover, government policy determines who are eligible for Medicare and Medicaid. The economic, social and political factors may have equal or greater impact on programs' costs than demographic effects. I would like to extend the analysis of McKusick et al's paper by examining some of the changes in these factors and see how they would affect Medicare and Medicaid.

In the past two decades, the U.S. has experienced a rapid rate of inflation in the medical care cost per capita. This cost inflation is mostly due to two factors: increases in utilization rates per capita and higher costs per unit of medical service. These increases are likely to continue because of the flaws in the structure of the United States health care system and because of the rapid technological advancements.

American health care financing system provides open check books to hospitals, physicians, dentists and nursing homes. Providers can fill-in the blank checks with any reasonable amount. The public and private programs would pay. This cost reimbursement system provides no economic constraint on providers nor they are given any incentives to economize. It's understandable then that under this open checkbook system hospitals would hire more personnel and would install the most sophisticated equipment and build the most modern building. The physician, the captain of the medical

ship, would treat the patients with all the modern technology can offer as long as there is a slight chance that the patient could benefit. Of course, under this system it's only reasonable that physicians should receive a handsome income for their efforts which now amount to an average annual income of $110,000 in 1983.

Various efforts are now undertaken in the United States to close the open checkbook and to offer economic incentives for providers to economize. But we have not found that magic bullet. Regulations such as setting budget limits for hospitals, paying hospitals based on case-mix (Diagnostic Related Grouping), prospective reimbursement, fee schedules are all being tried. These regulations may slow down the medical cost inflation. However, the regulatory effects are likely to be mild because they don't deal with the fundamental cause of medical cost inflation.

Physicians' power is the basic causes of inflation in the U.S. As the captains of the medical ship, they make not only medical decisions but also what medical technology should be adopted and what resources should be used. Physicians are socialized to do whatever may benefit their patients regardless of the cost. Meanwhile outsiders are legally declared as incompetent and unqualified to review and question physician decisions. The combination of being trained to do everything technically possible, along with professional independence, plus medical care being financed by insurance, causes the medical cost inflation. Regulations, falling short of drastically reducing the power of physicians, can't effectively control inflation which is caused by physician decisions. Market competition is weak also. It can't constrain the power of physicians.

The professional power of physicians is unlikely to be altered significantly in the next decade or two. Physicians will continue to make medical decisions without proper consideration of the costs to society. Therefore, the medical cost would continue to rise. Increase in cost due to inflation would dwarf the rise in cost due to demographic changes.

Some other socioeconomic factors also impact on Medicare and Medicaid. McKusick et al acknowledge the rate of eligibility for Medicaid depends on age, marital status, fertility rate, and divorce rate. In their paper, tney assume the age-specific, marriage rates and divorce rates will remain the same. Furthermore, they assumed that the eligibility requirement for Medicaid which is based on family status and income level will remain the same. In other words, the income distribution in the United States will remain the same. The same proportion of low-income population would become eligible for Medicaid. Of course, if the income test is changed for Medicaid, or there is a shift in income distribution in the U.S., the number of people eligible for Medicaid could change drastically.

For example, McKusick et al pointed out the eligibility requirements for Medicaid vary greatly from state to state. The income requirements for Aid to Families with Dependent Children (AFDC) varies from 75 percent of the poverty level in California to 20 percent in Texas. Table 1 presents a sample of the income standards for AFDC. It shows that most states have income standards that are close to 50-60 percent of the poverty level. However, these standards have become more stringent in recent years because of the depressed general economic condition and the limit of state revenues. Several states have enacted laws to limit the revenues which can be collected by local governments. For example, California passed Proposition 13

and Massachusetts passed Proposition 2 1/2. Both of these measures limit the total amount of taxes on real estate properties that the local governments may impose. Because of the taxpayers' revolt against higher taxes, the eligibility standards for AFDC and other categorical programs were tightened. It is likely that when the general economic conditions improve in the U.S., there would be increases in the states' revenues. The standards for AFDC and other programs may be liberalized, more people may become eligible for Medicaid.

In their model, McKusick et al assumed that the future utilization rates for nursing homes would remain at the current level. Several studies however have found that the utilization rates of nursing homes by the Medicaid population is constrained by the supply of nursing home beds. This development is a result of explicit public policy. States which finance nursing home care for the Medicaid population often realize that they do have the resources to pay for nursing home care demand by the Medicaid population, thus states use different regulatory approaches to limit the number of nursing home beds available. Restricting nursing home beds supplied limits the number of Medicaid population that can utilize the nursing homes and thus results in the reduction of the state's Medicaid outlays. With rapid increases in the aged population, the political weight shifts toward the aged voters. Whether state governments can maintain their past policies of limiting nursing home beds to reduce the utilization rate is questionable. In the United States, the development of a new financing system for institutional care of the aged is one of the urgent public policy issues. Policymakers realize this issue will become a significant social and political problem in another 10-20 years.

In the diagrammatic model presented by McKusick et al, they showed that demographic changes may affect unemployment, and employment conditions may affect the number of people who are eligible for AFDC. While they presented the interaction between demographic change and employment, they did not discuss its likely effects on the Medicaid program. As the working population increases more slowly, it is likely that the unemployment rate would decline because fewer new jobs would have to be created for the new labor force. As the unemployment rate declines, the wage rates will likely ~~be~~ increase because of tighter labor markets. As a result, the number of people who are classified as poor may be reduced because fewer working age people will be unemployed and those who are employed would earn a higher income. These changes would reduce the number of people who may become eligible for Medicaid.

McKusick et al made a significant contribution by isolating the potential increase in the cost of the Medicare and Medicaid programs due to demographic changes alone. This discussion extends it by examining several social, economic and political forces that determine the rise in medical cost that could dwarf the increase in cost due to demographic shifts. The actuaries of the U.S. Social Security Administration had estimated that by the year 2040, the Medicare cost alone could rise to 15 percent of the taxable payroll, mostly because of the medical cost inflation.

TABLE 1

State	Medicaid income eligibility standard as a percent of poverty level Fiscal Year 1979
Average All States	53%
For Selected States:	
Massachusetts	115
California	93
New York	79
Pennsylvania	69
Michigan	58
Wisconsin	58
Illinois	55
Connecticut	53
Minnesota	47
Vermont	44
Ohio	40
Missouri	34
Mississippi	26
Nebraska	24
Texas	24

Source: The Medicare and Medicaid Data Book, 1981. Health Care Financing Program Statistics. Health Care Financing Administration (U.S. Government Printing Office, Washington, D.C.).