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Yi-Sheng Chao M.D., M.P.H.

University of Medicine and Dentistry of New Jersey, chaoyisheng@gmail.com

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Unfair Contribution and Consumption in Medicare: Results from the Medical Expenditure Panel Survey in 2006

Yi-Sheng Chao, M.D., M.P.H.

University of Medicine and Dentistry of New Jersey

The research was an independent study.

Correspondence concerning this paper should be addressed to Yi-Sheng Chao,
Department of Health Systems and Policy, School of Public Health, University of Medicine
and Dentistry of New Jersey, New Jersey, 08955.

E-mail: chaoyisheng@gmail.com

Abstract

The imbalance of Medicare financing and cost sharing consumption is rooted in the Medicare tax collection and its main purpose to serve the aged population. The unfairness of Medicare tax collection includes its regressivity for all income levels and the incomplete tax collection among income groups. Those suffering from premature death, especially black males, lose the chance to enjoy longevity and the coverage of Medicare. The solution to the unfair redistribution posited is: alteration of Medicare enrollment age for different races and sexes, differential Medicare tax based on the population characteristics, and progressive taxation on all individuals to raise Medicare funds. Meanwhile, the generational medical debts that strangle the national fiscal condition can be paid off by a heavier inheritance tax.

Key words: regressivity, Medicare, Medicare tax

Author Note

Yi-Sheng Chao, Department of Health Systems and Policy, School of Public Health, University of Medicine and Dentistry of New Jersey, Piscataway, NJ. Yi-Sheng Chao is now a PhD student at the University of Medicine and Dentistry of New Jersey.

Unfair Contribution and Consumption in Medicare

Medicare, a social insurance, aims to insure the elderly, 65 years and above, as well as patients of end-stage renal diseases and certain disabilities related to health care access and care, according to Centers for Medicare & Medicaid Services (CMS) (2005). Medicare is composed of four parts: A, B, C, and D (CMS, 2005). Each part has its own range of services and coverage. Part A aims to insure hospital care; part B covers clinical visits (CMS, 2005); and part C, Medicare Advantage, is specially designed to provide the elderly the access to use managed care and other health care (CMS, 2009). Part D of Medicare is for prescription drugs. The parts of Medicare differ not only in the coverage, but also in the financing. The four parts were created one by one and, as such, part A was 84.34% covered by Medicare tax in 2008, and part B was almost entirely covered by general revenue in 2008 (Henry J. Kaiser Family Foundation, 2009). This is the same case for Part D. Medicare is financed by the Medicare taxes collected from the employees and employers, (42.45% of total Medicare expenditure in 2008). General revenue funded 40.03% in 2008 and, beneficiary premiums funded 12.61% in 2008 (Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, 2009). Therefore, Medicare relies on the redistribution of taxes and contributions from the working class as well as the general revenue of taxes from the IRS (Internal Revenue Service). Since the financing of Medicare depends on the redistribution of funds, does the mechanism work well and really benefit the disadvantaged? These are questions that in the author's opinion beg to be answered.

Method

Participants in MEPS

In the Medical Expenditure Panel Survey (MEPS), the 2006 consolidated household component data was used to estimate the individual health expenditure in Agency for Healthcare Research and Quality (AHRQ) (2006). MEPS is an ongoing large-scale medical

expenditure survey in which enrolled individuals, families, employers and medical providers across the United States participate (AHRQ, 2008). MEPS only focuses on the non-institutionalized civilians in the United States (AHRQ, 2008). The characteristics and construction of MEPS are based on a complex survey design, which enables the survey to estimate the national mean and variance among several groups (AHRQ, 2008).

Materials and procedure

By studying the participants in the Medical Expenditure Panel Survey, their contribution to Medicare tax, total health expenditure and out-of-pocket payments were estimated as national representative statistics. Because MEPS is not a tax information survey, the Medicare tax was estimated by using 2.9% of the total wage, presuming that the interviewees provided total wage income that included the employer's share of Medicare tax.

The health expenditure of those above 65 years of age and their self-payment under Medicare was estimated. The benefits from Medicare were calculated as the difference between the expenditure and the self-payment under Medicare. The contribution of Medicare tax, the usage of total health expenditure and total out-of-pocket payments were categorized by race and sex. Races were categorized as non-Hispanic white, non-Hispanic black, Hispanic and others. Poverty levels were categorized according to the federal poverty line and separated as poor/negative income (less than 100%), near poor (100% to less than 125%), low income (125% to less than 200%), middle income (200% to less than 400%), and high income (more than 400%) (AHRQ, 2008).

Weights

By applying the person-level weight and the variance weight, the mean and its 95% confidence interval of estimation were assessed (AHRQ, 2008). STATA version 10.0 was used for the statistical analyses and estimation.

Results

The Medicare tax contribution by population of working age

Based on the wage variable in MEPS, those under and over 65 years of age were separated. Those under 65 years of age contributed 95.2% and those over 65 years of age contributed 4.79% of a total \$168 billion. Among those of working age, 15 to 64 years, the percentage of wageworkers differed in each income category. Wageworkers were 86.94%, 81.36%, 73.66%, 69.28%, and 50.47% of the high income, middle income, low income, near poor, and poor/negative income categories, respectively. From a racial perspective, the white population had a higher proportion of wage earners during their working age, 81.23%, compared to 72.92% of the black, 75.22% of Hispanic, and 76.30% of the others. The Medicare tax contribution per capita and share of their contribution were listed in Exhibit 1 with demographic proportions.

Among the wage earners under 65 years of age, their contribution to Medicare tax was categorized by race and sex. In Exhibit 2, the percentage of contribution was listed with their categories.

In Exhibit 2, the Medicare tax contribution by the enrollees above 65 years of age, covered by Medicare, indicated that the whites contributed 84.00% and they were 80.98% of the enrollees above 65 years of age. Even taking the Medicare tax contribution of the enrollees into consideration, the influences from the elder enrollees' contribution was small, 4.49% of the Medicare contribution from the young.

Usage of Medicare cost sharing by the elder Medicare beneficiaries

According to the data, Medicare is composed of four parts and the majority of Medicare tax flowed to part A. There was no information on exact spending in parts of A, B, C, and D of Medicare in MEPS. The Medicare cost sharing was estimated by the difference between the total expenditure and the self-payment. Categorized by race and sex, the share of the total subsidy for each subgroup is listed in Exhibit 3. Exhibit 4 compares the share of

Medicare tax contribution and the consumption of Medicare cost sharing by each race and sex. White females contributed 30.89% of Medicare tax and consumed 45.99% of Medicare cost sharing. Besides white females, black females and females of other races had larger percentage of the Medicare cost sharing than Medicare tax contribution.

Discussion

The differences in the Medicare tax contribution

There are obvious differences in the probability of being wageworkers based on the poverty categories. Although the higher income groups tend to have a higher probability of wage work, 86% of the high-income working age group is paying for the Medicare tax. With significant negligence of catchment of Medicare tax collection, only 78.98% of all people of working age and who are working actually contributed to the Medicare fund. From the racial demographic breakdown, the percentage of contributing Medicare tax was higher for whites than the other races. The white demographic also tends to have higher income than the other races and this causes them to contribute more of the Medicare share (73.81%) than their population share (63.76%) during working age.

The differences in Medicare cost sharing consumption

Under the Medicare coverage, there were significant changes in the demographic characteristics in Exhibit 1 compared to those less than 65 years of age. The percentage of white males shifted from 32.11% of the working age to 34.42% of the Medicare enrollees above 65 years of age; white females increased from 31.73% of working age to 46.56% of Medicare enrollees above 65 years of age. The percentage of the Medicare enrollees above 65 years of age of other races was relatively smaller than the share of their counterpart of working age. These differences come from the longevity of the female and relative advantage of the white population, and increased number of young immigrants of races other than white, especially Hispanic origins (Rytina, 2009). In the survivorship curve published by CDC

(Centers for Disease Control and Prevention), a significant decline in survivorship from 60 years to 70 years among all races was detected, but decline occurred at an earlier age for the black male and black female (Arias, 2004). Therefore their chance of being insured by Medicare was relatively small.

In terms of consumption of Medicare cost sharing, white females consumed 45.99% of the Medicare cost sharing and their per capita benefits of cost sharing was not the highest among all racial and sex categories. The relatively low per capita spending might reflect that they are relatively healthy, compared to other higher expenditure groups. Even though white females did not consume Medicare cost sharing significantly more than others, their longevity magnified their overall consumption and reliance on Medicare.

Unfair redistribution

Whether Medicare is a fair redistribution and social insurance mechanism is questionable from the results of the MEPS statistics. Medicare tax only accounted for 85% of the part A expenditure and, in general, 40% for all Medicare expenditure in 2010 (Henry J. Kaiser Family Foundation, 2009). The redistribution of Medicare proposed by the authors introduces the Medicare tax of mostly all races that are of working age to heavily subsidize the elderly.

However, the way to define the disadvantaged population in a society that depends not only on their morbidity but also their chance of premature mortality is complicated. In terms of mortality, the black male is posited as being the most vulnerable and disadvantaged. But the process of aging seems to merely strengthen the practice of treating the elderly rather than as those who suffer a premature death. Which one is fair, to subsidize the healthy when they are aged or help the ill when they are young? Does aging itself justify all kinds of subsidies, charity, and demands of the younger working population? These questions beg to be explored from an ethical perspective.

Also, the results of inter-racial subsidies raised an interesting question: who should pay for the white grandmother, the black, the Hispanic, or the others? In designation literature regarding racial disparities in health, race is not only a proxy of disparities in SES (socio-economic status) but also a social determinant in health (Kunitz, 2007). Why has Medicare left the racial and ethnic minorities more vulnerable under its own coverage (Families USA, 2006), if every race contributed by the same rule?

Further, the gender differences between all races in the consumption of Medicare cost sharing are obvious and worth discussion. In MEPS, the Medicare contribution and use of Medicare cost sharing can be estimated. It is true that the female demographic tends to consume more Medicare cost sharing with the exception of the Hispanic female. Should all or only those of the same race pay for gender differences?

The gender role of health spending has been discussed in health literature but much discussion has neglected the fact that longevity brings greater health expenditures in the long run (van Baal & Polder, 2008). In previous literature, gender difference in longevity was considered as a mixed result of social and biological factors (Kunitz, 2007). The imbalance between Medicare tax contribution and Medicare cost sharing usage pushes one to the question of whether the female demographic was deemed to produce less in money terms compared to their male peers of the same races, or whether our society did not provide a platform of values equal to their real contributions to society.

Imbalance in Medicare tax contribution and benefit consumption collection

Even the eligibility criteria require enrollees to have a prior 10-year contribution of social security tax and Medicare tax (Federal Insurance Contributions Act tax, FICA tax) (CMS, 2005). The cross-sectional results in MEPS statistics show that only part of earners contribute to the Medicare tax. In the end more than 97% of the elderly are enrolled in Medicare according to MEPS statistics. The asymmetry of discrete contribution in the

working population and universal coverage in later life is part of the sustainability problem in Medicare.

More importantly, the Medicare tax and social security tax are not progressive. Wage earners of all income categories pay the same share of their income. Progressive tax imposes heavier percentage on the rich than the poor and this design will redistribute the social resources to the poor. Medicare tax does not redistribute more resources to the poor, imposing uniform tax rate on all wage earners. However, Medicare tax is still better in reducing the regressivity than the social security tax, which had a payment upper limit of up to \$94200 in 2006.

Help the minorities when they are alive

The root cause of the inequity in intergenerational and inter-racial cross-subsidies arose out of the persistent differential survivorship of races and different patterns of wage earning. For the black male, their survivorship declines right after 65 years of age and other races have longer years in survivorship. The enrollment age, 65 years of age, leaves Medicare a platform of cross-subsidies for those suffering premature death to those enjoying longevity. To reverse the subsidies to the disadvantaged population, the author proposes that the resources need to be redistributed not only to the elderly, but also to those younger who suffer from premature mortality.

Differently, the gender imbalance of longevity suggested another problem. Currently the female population is responsible for the majority of housework and child rearing (Kiger & Riley, 1996), which was not fully demonstrated in the national productivity statistics, especially the wage statistics. Gender norms in the society influence not only the practice of housework, but also the psychological environments for females. These gender norms can lead to discrimination (Sexton & Bowman-Upton, 2002). Hence, the author proposes a subsidy that adjusts for added years experience by females. A well designed redistribution

mechanism for late life preparation should help individuals of possible longevity, especially females, in reserving their resources and, at the same time, avoid depriving resources from those populations suffering from premature death to help them maximize utility in their life time.

Sustainable intergenerational imperatives?

Since the system already entitles the elderly the right to benefit from the subsidies contributed by younger populations, does this system really warrant being repeated? Is there a moral imperative to sustain grandparents passed on to the next generation to guarantee subsidization of health expenditures? Does the support of grandparents obligatorily deprive the next generation?

The answer does not turn out to be positive. The ongoing health reform does not treat the spending in Medicare as a necessary burden, but a focus of fiscal reform and a target for cost cutting (The Economist, 2009). The overwhelming growth of the Medicare budget has put pressure on governments to cut spending and postpone the enrollment age (The Economist, 2009). The fiscal problem reflects how fragile and weak the intergenerational promise may be.

In 1965, when Medicare was first enacted, the life expectancy at birth was only 70.2 (Anderson, 1998). The impact of aging was also diluted by the continued flow of younger immigrants. The unfairness embedded in Medicare was not a serious concern. At that time intergenerational subsidies were the only solution to finance the elderly's health needs, even as those of 65 years of age and over had very little productivity.

The authors suggest it is time for people to plan for their own later life. There is consistent evidence to show that individuals of different races, sexes, education, and income categories had different patterns of health and mortality (De Vogli, Gimeno, et al., 2008; Isaacs, & Schroeder, 2004). The inequities in Medicare will repeat generation after

generation if there is not a significant modification of its financing and subsidy designs.

Therefore, how can society help the older generation lessen its reliance on subsidies provided by the wages of the younger generation?

Policy Implication: How to Redesign the Redistribution?

Instead of Medicare as it currently operates, the authors proposes that the financing of the elderly's health expenditure requires early action and planning because the consumption era is significantly longer than the working age, mostly from 15 to 64 years of age, of one's life time. A fair self-financing method is a matching mechanism of productivity period and the consumption-only later life. As mentioned, those suffering from premature death had less chance to consume later life services and individuals of longevity potential had the greater responsibility of preparing for themselves.

However, health has uncertainty, especially in later life. Insurance is a necessary way to help individuals of similar health risks be pooled together and avoid catastrophic health spending in later life. Individuals during their working age who are of similar racial, sex, education and socioeconomic status in the same age cohort are suitable to pool together, rather than repeating the interracial subsidization in Medicare. For the marginalized or disabled groups, other social insurance, like Medicaid, acts like a larger pool to cover the special needs of the whole society. The next step is the discussion of which cohort and social strata should receive which kind of subsidies and support. After choosing the risk pools of cohorts, there are different levels of subsidies in the Medicare according to each one's position relative to the federal poverty line.

The Closure of the Generational Medical Debts: Inheritance Tax

Because the practice of Medicare pooled the whole older generation together, how to fill the gap between their lifetime Medicare tax contribution and their health expenditure under Medicare became a generational question. Other literature also indicated that the

Medicare subsidies are far more than the lifetime contribution of the Medicare enrollees (Christensen, 1992). Because Medicare performs as insurance covering a whole generation, the unpaid amount raised another question: Could the unpaid amount, subsidies from Medicare, be seen as the medical debts of the whole generation? If yes, the whole generation enjoying the benefits from Medicare has the responsibility of cleaning up their medical debts. A possible way to clean the medical debts of the generation is to collect the revenue from inheritance tax. Since the whole generation was socially insured together under the existing mechanism, all members of Medicare share the responsibility of cleaning up the medical debts of their generation. The safest way to pay without hurting their rights and health in their lifetime is an inheritance tax. If the problem of Medicare subsidies were inevitable in the beginning, the problem of unaffordability under Medicare forces one to consider the need to clean up the generational burden and restart a fair Medicare funding method.

Conclusion

Redistribution itself will not bring fairness; a well-designed and well-considered redistribution will. Medicare is not well designed especially in the transparent portion of its funding sources (42.25% financed by Medicare tax or 84.34% of Medicare part A). In other parts, Medicare did not provide a traceable source of financing, as with general revenue. Compared to the racial and sex composition of Medicare financing, the usage of cost sharing under Medicare coverage flowed to the population of longevity, especially the white female. This financial flow did not match the concept of redistribution to the disadvantaged. Because only the healthy population with better rates of survivorship extends their age to later life, the redistribution does not adjust for the previous health and relative social status, but aging only. The result is that the advantaged and possibly high-income groups were free from the fear of exaggeration of health expenditure in later life, while disadvantaged populations largely do not reach later life.

Inequity not only exists in Medicare consumption, but also in the collection of Medicare tax. In MEPS, the percentage of Medicare tax contribution was higher in the higher income category, but there was still more than 10% of the senior high-income group that avoided the responsibility of supporting the senior generation. In another perspective, social security tax and Medicare tax are both regressive, especially social security tax. The low-income population suffered from the regressivity more than the high-income groups.

Editorial Note: The opinions expressed by authors represent those of the authors and do not reflect the opinions of the editorial staff of The Online Journal of Health Ethics.

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Exhibits**Exhibit 1.** The Medicare tax contribution by the working population

		Population proportion		Medicare tax by wage earners per capita		Proportion of wage earners in working age population		Medicare tax by all in working age per capita		Share of Medicare tax contribution	
White	Male	63.84%	32.11%	\$1,158	\$1,282	81.23%	85.38%	\$941	\$1,095	73.81%	42.94%
	Female		31.73%		\$1,021		77.08%		\$787		30.89%
Black	Male	12.63%	5.97%	\$853	\$925	72.92%	73.20%	\$622	\$676	8.99%	4.51%
	Female		6.66%		\$793		72.68%		\$576		4.49%
Hispanic	Male	16.25%	8.45%	\$755	\$801	75.22%	83.23%	\$568	\$667	10%	6.14%
	Female		7.80%		\$692		66.37%		\$459		3.83%
Others	Male	7.27%	3.43%	\$1,124	\$1,311	76.30%	80.26%	\$858	\$1,053	7.20%	4.15%
	Female		3.84%		\$940		72.80%		\$685		3.05%
		100%	100%		\$1,065	100%	100%		\$841		100%
Total amount		263,000,000								\$168,000,000,000	

Note: author's calculation according to MEPS in 2006

Exhibit 2. The Medicare tax contribution of the elderly covered by Medicare

		Total Population		Medicare tax contribution		Contribution per capita	
White	Male	80.98%	34.42%	\$4,090,000,000	84.00%	54.28%	\$335
	Female		46.56%	\$2,240,000,000		29.73%	\$136
Black	Male	8.42%	3.34%	\$196,000,000	5.03%	2.60%	\$165
	Female		5.08%	\$183,000,000		2.43%	\$102
Hispanic	Male	6.40%	2.75%	\$439,000,000	7.54%	5.83%	\$450
	Female		3.65%	\$129,000,000		1.71%	\$100
Others	Male	4.20%	1.80%	\$178,000,000	3.43%	2.36%	\$279
	Female		2.40%	\$80,300,000		1.07%	\$95
Total population		100.00%	100.00%		100.00%	100.00%	Per capita for all groups
		35,439,720		Total amount	\$7,535,300,000		\$213

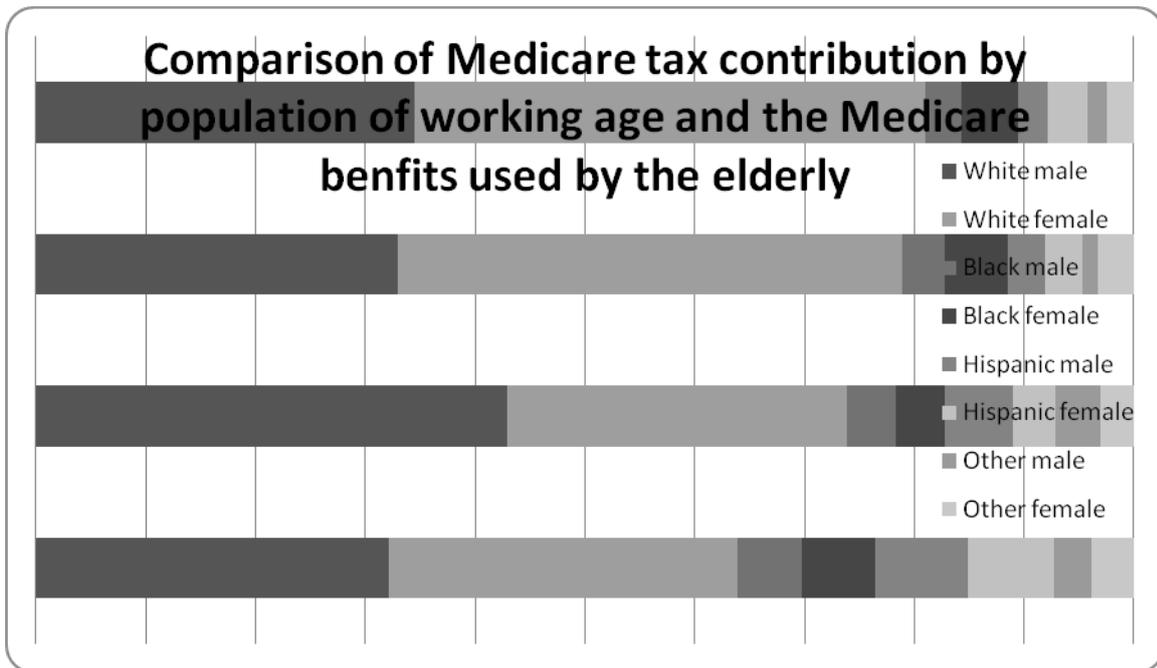
Note: author's calculation according to MEPS in 2006

Exhibit 3. The consumption of Medicare benefits

		Population share		Consumption of Medicare cost sharing		Per capita	
White	Male	80.93%	34.42%	78.94%	32.95%	\$8,373	\$8,042
	Female		46.56%		45.99%		\$8,619
Black	Male	8.44%	3.34%	9.56%	3.81%	\$8,990	\$8,914
	Female		5.08%		5.75%		\$9,040
Hispanic	Male	6.42%	2.75%	6.78%	3.40%	\$8,815	\$10,186
	Female		3.65%		3.37%		\$7,781
Others	Male	4.21%	1.80%	4.72%	1.49%	\$8,869	\$6,645
	Female		2.40%		3.25%		\$10,541
		100.00%	100.00%	100.00%	100.00%		
		Total population	35,339,719	Total amount	\$252,100,000,000	For all races	\$7,117

Note: author's calculation according to MEPS in 2006

Exhibit 4. Comparison of Medicare tax contribution by population of working age and the Medicare benefits used by the elderly



Note: author's calculation according to MEPS in 2006