Health Effect of Medicare Coverage for the Disabled
(Extended Abstract)

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I. Motivation and Research Question

Medicare is a health insurance program for people age 65 or older and some disabled people under age 65. Although disabled workers comprise only 15.6% of the total Medicare population, they account for about 19% of total program expenditures. Growth in Medicare enrollment for younger beneficiaries continues to outpace overall program growth (Centers for Medicare and Medicaid Services). Between 1995 and 2004, the number of Medicare beneficiaries under age 65 increased by 43%, while the number of elderly rose by only 6%. In terms of research attention and policy consideration, younger Medicare beneficiaries with work disabilities "have been largely overshadowed by the elderly – in numbers, costs and political clout" (Foote & Hogan, 2001, P. 242).

Compared to the Medicare's elderly beneficiaries, the disabled beneficiaries are more likely to be in poor health, have low income and lack access to affordable supplemental health insurance coverage. The disabled individuals get Medicare coverage two years after they are accepted to the Social Security Disability Insurance program (DI), which provides both cash benefits and health insurance coverage to people with severe health limitations that prevent them from engaging in any substantial gainful activities and are expected to last at least 12 months. The DI program, established in 1956, provides cash benefits and Medicare coverage to 9 million American workers and their eligible dependents, at a total annual cost of about $100 billion (2009 SSA Annual Statistical Supplement). The DI beneficiaries suffer from severe disabling conditions and are in serious need of health insurance coverage. However, the current program rules require DI beneficiaries to wait two years on the rolls before having access to Medicare coverage.[1] According to the Congressional Budget Office (December 2008), around 1.8 million DI beneficiaries are in the waiting period for Medicare coverage. Around 20 percent of DI beneficiaries have no health insurance coverage at all during the period (Livermore et al. 2009). Many of the uninsured delay needed medical treatments, skip medications, and even become depressed and desperate (Williams et al. 2004; Hayes et al. 2007).

When the Medicare program was expanded in 1972 to include DI beneficiaries, the legislation was created to keep costs down, avoid private health insurance crowd-out, and to make sure the beneficiaries' disability conditions are

[1] The two year waiting periods are waived for those with amyotrophic lateral sclerosis (ALS) and those with end stage renal disease.

long-lasting (Szymendera, 2009). But there have been concerns that the two-year Medicare waiting period probably causes higher health care costs due to the fact that being uninsured may lead to deteriorating health status and higher health care cost once covered. Moreover, between 25 percent and 35 percent of DI beneficiaries rely on Medicaid coverage while waiting for Medicare entitlement (Berg Dale and Verdier 2003; Livermore et al. 2009), and therefore the two-year waiting period does not really help much the objective of lowering the cost of government health insurance programs.[2]

There have been several efforts to change this policy. Recently the *Ending the Medicare Disability Waiting Period Act of 2007*, sponsored by Senator Jeff Bingaman and Rep. Gene Green, proposes to phase out Medicare's two-year waiting period over a ten-year span and grant more exceptions to people with life-threatening health conditions. There is also experimental research currently conducted on this important issue, by Mathematica Policy Research.[3] This SSA-funded project tests whether providing immediate health care access to newly awarded DI beneficiaries without any health insurance coverage will lead to improved health outcomes and employment outcomes in a five-year horizon. While the project will provide some important evidence on these potential changes, it is subject to some common issues in a demonstration project. It is scheduled to complete in 2011 and its findings will take time to evaluate.

The study in this paper benefits from existing data resources and provides evidence to answer the question: will immediate health insurance coverage to the disabled lead to improved health outcomes? There have been a lot of discussions on this issue but no formal analysis has been done according to my knowledge. The literature that studies the DI program has focused on the effect of cash benefits and very little work has looked at the effect of Medicare, for example the effect on health outcomes among the disabled. Another strand of literature that examines the impact of Medicare on health outcomes has focused on the impact on the elderly beneficiaries. They have found that Medicare has no discernible effect on health. (For example, Levy and Meltzer 2001, Finkelstein and McKnight 2005, Newhouse et al 1993 based on RAND HI Experiment) Those research efforts are helpful to understand the average effects of Medicare on health outcomes among the elderly, which may have masked any effect on some sub-group of the population. For example, a recent study by Card, Dobkin and Maestas (2004) found small impacts of reaching age 65 on self-reported health, with the largest gains among the groups that experience the largest gains in insurance coverage. In my study, I examine whether there are any health benefits by providing immediate health insurance coverage to the disabled.

I look at the research question comparing the changes in health outcomes among DI beneficiaries with those among Supplemental Security Income (SSI) beneficiaries. The DI program and the SSI program evaluate applicants

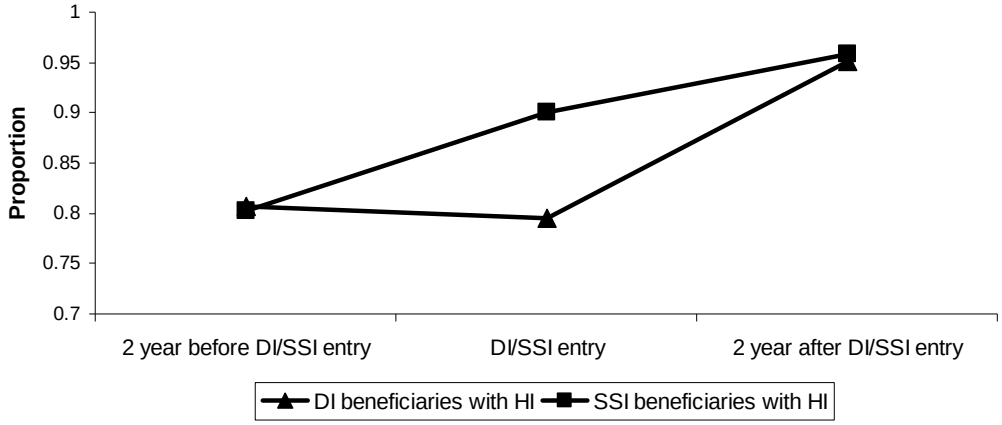
[2] Berg Dale and Verdier (2003), Riley (2004), and Livermore et al. (2009) estimate the fiscal impact of eliminating the two-year waiting period.

[3] This is called The Accelerated Benefits Demonstration. This change could potentially also have substantial induced-entry effects because it makes the DI program more attractive to individuals (see Gruber and Kubik 2002). This would result in added administrative and long-lasting costs to the system. This possibility should be evaluated separately, likely within a structural model of behavior in which Medicare and Cash Benefits are fully modeled.

following exactly the same Definition of Disability: severe health conditions or limitations that are expected to last at least 12 months or result in death. In contrast to DI beneficiaries who have to wait two years for Medicare coverage, most of SSI beneficiaries have immediate access to Medicaid once they are awarded SSI cash benefits.[4] Compared to DI beneficiaries, do SSI beneficiaries have improved health status compared to before being on the program? DI beneficiaries and SSI beneficiaries serve as natural comparison groups to test whether earlier access to health care leads to better health outcomes for disabled beneficiaries. The results will inform policymakers about the potential for eliminating the two-year Medicare waiting period and improving health care access for DI beneficiaries.

Figure 1 illustrates the proportion of DI/SSI beneficiaries with health insurance coverage before and after the program entry. The proportion of DI beneficiaries with health insurance coverage (including Medicaid and employer provided health insurance) drops slightly from 80.7% two years before DI entry to 79.6% while entering DI, and then increase dramatically to 95.1% two year after DI entry when Medicare coverage become available. Since SSI beneficiaries have immediate access to Medicaid, we see in the figure that the proportion of SSI beneficiaries with health insurance coverage consistently increases from 80% before SSI entry all the way to 96% after SSI entry.

Figure 1: Proportion of DI/SSI Beneficiaries with Health Insurance Coverage



Source: Author's calculation using Health and Retirement Study.

Figure 2 shows the health distribution of DI and SSI beneficiaries. Quite remarkably the proportion of SSI beneficiaries in poor health drops from 39% before entering SSI to 24% after SSI entry. In contrast, the proportion of DI beneficiaries being in poor health increases from 23% before DI entry to 33% while entering DI, and then drops to 28%, a level still higher than the before-entry level. This preliminary and unconditional evidence points to a potentially important role of the two-year waiting period, especially if we consider that those applying to SSI due to the means-tested nature of that program are in worse health to start with due to likely lower investments in health during their life,

[4]In 39 states, eligible SSI applicants automatically get Medicaid health insurance. In the other 11 states, the Medicaid needs to file a different application from SSI application. Even if SSI recipients become income ineligible, their Medicaid benefits will still continue. Medicare also extends to the DI recipients who leave the rolls and return to work.

and less access to employer provided health insurance and private health insurance, and yet recover in remarkable numbers thanks to the access to public health insurance.

Figure 2a: Health Distribution of DI Beneficiaries

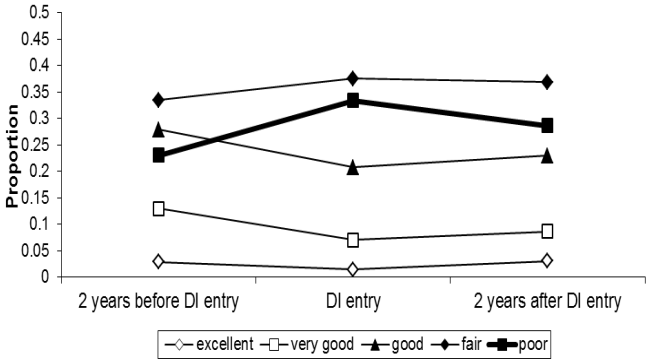
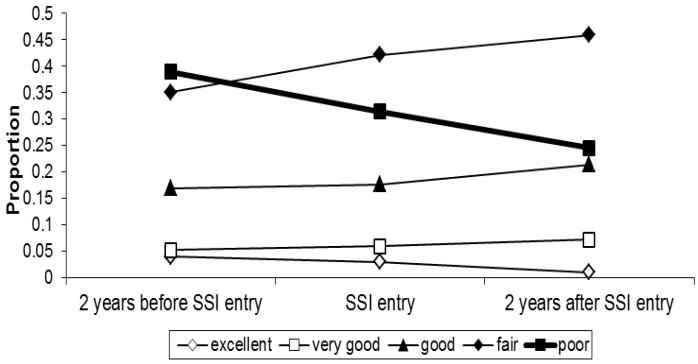


Figure 2b: Health Distribution of SSI Beneficiaries



Source: Author's calculation using Health and Retirement Study.

II. Data and Research Methods

I take advantage of the longitudinal aspect of the Health and Retirement Study (HRS) and the rich health information it provides (general health assessment, Activities of Daily Living, Instrumental Activities of Daily Living, diagnosed health conditions, and work limitations) to study the health changes before and after entry into the DI/SSI programs. I use data from wave 4 to wave 8 given that benefit status to DI and SSI are not asked separately until wave 5. I construct the sample using those who are not on DI/SSI yet in wave 4 and will be on DI/SSI in wave 5.[5] The sample is restricted to the first-time awardees for the fact that an individual becoming re-entitled to DI benefits is permitted to count the months of the earlier spell of disability in satisfying the 24-month waiting period if the spell occurred within the previous five years or seven years. The sample is also restricted to those without any health insurance coverage, which is about 20% of the DI or SSI beneficiaries.

I use a difference-in-difference estimator, where the first difference is the within-individual changes in health outcomes before and after the program entry, and the second difference is for DI beneficiaries versus SSI beneficiaries, to control for fixed unobserved differences between groups, assuming time-varying factors affected both groups equally. One possible issue is that DI and SSI beneficiaries are not very comparable at the baseline in terms of their characteristics especially socioeconomic characteristics. To address that and also potential selection biases, I use propensity score matching approach in which I construct a more appropriate control group by selecting individuals based on their characteristics.

[5] DI beneficiaries who concurrently receive SSI benefit usually gain immediate access to Medicaid. So I categorize them into the SSI group.