Regional Variations in Medicare Expenditures for the SSDI Population

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There are wide variations in Medicare expenditures across geographic locations in the United States. Per capita spending for those over 65 can be more than double in some places what it is in others, even adjusting for age, gender and racial background. The variations even persist after accounting for differences in health status across regions, for example by studying expenditures for just patients who have a heart attack or hip fracture. Little is known, however, about regional variations in Medicare expenditures for those enrollees under age 65, most of whom receive Medicare benefits through the Social Security Disability Insurance (SSDI) program following a two-year waiting period. Indeed little is known about the type and quality of health care received by SSDI recipients, despite the fact that expenditures for the under-65 Medicare population are rising more rapidly than for those over-65.

There are reasons to expect greater variation in spending by the under-65 population, as compared with the over-65 population. One reason is that in this population, there are fewer “low variation” diseases such as hip fractures and heart attacks, where nearly every patient ends up in a hospital and where there is relatively less variation in per-capita utilization. By contrast, the typical diseases for the SSDI population are mental illness and musculoskeletal diseases, where there is evidence (from other populations) of substantial variations in treatment patterns across regions.

In this paper, we take a first look at regional variations in Medicare expenditures for the under-65 population. Our analysis is based on 2005 Medicare data, divided among 306 Hospital Referral Regions (HRRs) in the Dartmouth Atlas database. These HRRs comprise contiguous health care “markets” as measured by zip-code level discharge data. We find that enrollment rates in the age 20-64 population exhibit substantial differences across HRRs, ranging from under 2 percent to more than 8 percent, with substantially higher rates geographically clustered in the Appalachian regions and the Deep South. Higher rates of chronic disease in the under-65 population, poor labor market opportunities for lower-educated workers, and minimal social insurance benefits from other programs such as TANF – would be expected to contribute to higher rates of participation in some areas, compared with others.

More surprising than the enrollment variation, which is geographically clustered, is the patchwork quilt of under-65 Medicare expenditure patterns across the U.S. For example, there is substantial variation across regions in age-sex adjusted expenditures, ranging from $3,923 per enrollee in Dubuque IA to $19,854 in Miami, or a nearly five-fold difference. We focused in greater detail on seven representative regions: San Francisco, Miami, Monroe LA, Worcester MA, Minneapolis, Buffalo NY, and Elyria OH. The national average of per enrollee spending in the data is found to be $8,320, slightly higher than the rates in San Francisco ($7,471), Minneapolis ($7,172) and Buffalo ($6,593), slightly lower than Monroe, LA ($8,628), and well below Worcester ($10,368), Elyria ($14,059), and Miami ($19,854).
Miami was a considerable outlier in the data, and we were particularly interested in the differences in spending between the two larger metropolitan areas, Miami and San Francisco. While Part A expenditures in Miami are high – roughly double expenditures in San Francisco – the largest differences between Miami and elsewhere arise from Part B expenditures, nearly four times those in San Francisco. In examining the clinical conditions that account for high Miami Part B expenditures, we observed an extraordinarily high prevalence of primary thrombocytopenia (low platelets in the blood) and associated use of immunoglobulin injection.

Our initial findings provide a foundation for continuing work. One direction, for example, is simply to document what diseases and treatment categories account for the largest variations across regions in expenditures patterns for the under-65 population. Documenting these differences can lay the groundwork to evaluate whether additional spending in high-cost regions are justified by unmeasured severity of disease, or whether such spending yields more benefits in terms of return to work or lower rates of hospitalization or emergency room admissions. On the other hand, these patterns raise at least the possibility of substantial degrees of inefficiency in Medicare spending for the under-65 population and suggest future work comparing spending and outcomes for patients across regions with similar diagnoses.

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