Self-assessments of health are a subjective measure of health status. They can be considered to be a function of an array of inputs, including disease and disability, as well as other demographically and socially related factors, such as age and socioeconomic status. In view of some earlier theoretical and empirical works, we seek to build upon our understanding of health status measurement by concentrating specifically on the linkages among three widely used health measures, particularly on the direct and indirect influences of health conditions and the direct effect of disability on self-rated health. At the same time, we consider the discrete nature of specific health conditions and self-rated health as well as the role of mental disorders in the conceptualization.

The data used for this research come from the Survey of Asset and Health Dynamics among the Oldest Old (AHEAD). We model the influences of six specific health conditions (hypertension, diabetes, cancer, heart disease, stroke, and depression symptoms) on an older person's self-rated health, both directly and indirectly by means of physical and social functioning. In our analysis, three types of causal linkages are estimated. The first concerns the impact of health conditions on the number of functional limitations, an indicator representing the presence and severity of disability. The second considers the influences of health conditions, both direct and indirect by means of disability, on self-rated health. The third addresses the effect of disability on self-rated health. We pay particular attention to the discrete or continuous nature of the health measures and the structure of their distributions when determining the appropriate statistical approach. Specifically, we use Duan's two-stage retransformation model to estimate the effects of health conditions on the number of functional limitations. Then, we apply the ordered probit model to link the probability distribution of self-rated health

to health conditions and the number of functional limitations. Lastly, we present the predicted number of functional limitations and the predicted score of self-rated health by each health condition as the summary measures for this study.

Our analytic results demonstrate that there are some variations in the number of functional limitations and the score of self-rated health associated with specific health conditions. In particular, those with stroke, depression symptoms and "other health conditions" have relatively higher number of functional limitations and lower score of self-rated health than other specific diseases. However, differences in these health measures are not as sizable as would be anticipated from results of other studies. In our analysis, the number of health conditions, considered a less informative measure of disease by some other researchers, proves a more significant predictor for disability and self-rated health in older Americans. The implication of this finding is that besides variations by specific type of health conditions, a higher level of comorbidity tends to exacerbate both functional status and self-assessments of health whatever the specific conditions.

This study has suggested depression symptoms to be a significant predictor of disability and self-rated health, controlling for the confounding effects of physical diseases and comorbidity. Their effects are even stronger than those of some conventionally more life-threatening diseases, such as cancer and hypertension. While this issue has been largely ignored by prior studies, lowering older persons' prevalence and incidence of mental disorders can substantially improve their functional status and self-assessments of health, thereby enhancing their quality of life.

We also attempt to sort out some of the complex associations between measures of health by determining the proportion of the influence that health conditions have both directly on self-rated health and indirectly by means of functional limitations. Overall, it is clear that different health conditions transmit various types of effects on one's self-rated health. Some have strong direct effects, while for others the influence is more a function of disability's effects. This result has implications for understanding how an older adult comes to assess their own health, based on the type of health condition they have. It suggests that those health conditions that impact on self-rated health directly, like diabetes, heart disease and cancer, create an overall feeling of being an ill person, despite that their functional abilities may remain virtually intact. On the other hand, where the influences are substantially indirect, such as stroke, the feeling of illness can be a result of the impact that the condition has on functional ability.

Self-assessments of health are often used in survey research as proxies for overall health status. This study allows us to draw some implications as to whether such measures are valid. Prior research has demonstrated a close association between self-rated health and future mortality and morbidity. Our conclusion to this issue appears to be mixed based on the available evidence. On the one hand, an increase in functional limitations and the number of health conditions also increase the probability of reporting poor self-rated health. Those who report poor health ratings are, therefore, more likely to be faced with comorbid conditions. On the other hand, specific health conditions have specific types of influences on self-rated health that cannot be understood in the absence of information on physical and mental conditions. Poor self-rated health is more likely to

be assessed when an older person suffers from a stroke or depression, but is less likely to be reported in case of hypertension.

Finally, our analysis has demonstrated an absence of a significant and consistent association between age and self-rated health when health conditions are controlled. Therefore, self-rated health may not be a suitable measure of health in the analysis of dynamic transitions in health status, because it does not capture the underlying nature of such movements.