Presentation Notes

Background

* An Aging Population: This is an infographic I found on the US Census website and I am sure this comes as no surprise to those of you in this room that the projected number of individuals over 65 are expected to increase, here, we can see that in the United States alone the number of individuals over 65 is expected to almost double by 2060.
* As the population ages, the need to manage and provide healthcare for this distinct population grows
* To this end, how can we use already published observational data to provide insight into what genetic factors contribute to healthy aging?

Methods

* It has traditionally been difficult to evaluate observational studies for causal associations in risk factors in human longevity
  + Solution: Mendelian Randomization approach. A statistical approach to find causal associations among observational data
  + Risk factors: limit by genetic associations of risk factors
* Specifically for this project, we used Two Sample MR, which obtains significant SNP-Exposure from other studies and compares SNP-outcome relationships in another study. In this way we can make causal association among the Exposure-Outcome relationship.

Assumptions

Limitations