OBJECTIVES: To estimate the Disability Adjusted Life-Years (DALY) attributable to Atrial Fibrillation (AF) during 2010 in Portugal, including both AF and AF related stroke. METHODS: The analysis requires two types of data. The first is an extended set of epidemiological data, which resulted from a compilation of the prevalence and mortality data for AF and for stroke in Portugal. For the distribution of mortality by age, gender and cause of death the WHO Europe mortality database was used. The analysis also uses the results of FAMA, a study of the prevalence of AF in Portugal. Incidence rates were estimated from a review of the international literature. The second type of data concerns the relative risk (RR) of stroke for patients with AF. RR values by age group from the Framingham Study were used. Disability weights were taken from the Global Burden of Disease 2010. RESULTS: A total of 3863 deaths in Portugal in 2010 were related to AF, with 813 having AF listed as cause of death and the remaining 3050 being stroke deaths attributable to AF. The AF attributable deaths are roughly 3.6% of total deaths in the country. The estimate total DALYs was 9814 (2.251 for AF listed as the cause of death and 7.563 for stroke as cause of death attributed to AF). CONCLUSIONS: AF is an important cause of disease burden in Portugal. As reference, AF DALYs are roughly twice the estimated DALYs for skin cancer. AF should receive adequate attention from policy makers.