It is well recognised that the population is aging, a fact reflected in a recent call to expand the frail age category (over 85 years) for disease reporting in the US to allow greater specificity in the diseases experienced within this older population (Becce 2008). One of the consequences of an aging population is the emergence of genetically-linked disorders that develop later in life. Many of these disorders affect the central nervous system and result in progressive degeneration of higher functions and dementia. Indeed, it is reported that the most important cause of disability in the elderly is dementia, with Alzheimer’s disease (AD) the most common cause of dementia in the Western world (The European Commission 2008). Dementia affects mainly those over the age of 60 years and involves the slow and steady decline of mental abilities. Although dementia can occur at any age, it is rare in those younger than 60 years (Alzheimer’s Disease International 1999). Further, the likelihood of developing dementia increases with age (The European Commission 2008). It is estimated that 24.3 million people worldwide currently have dementia, with 4.6 million new cases expected every year (Ferri 2005). Importantly, it is predicted that the number of individuals with dementia will double every 20 years to reach 81.1 million by 2040 (Ferri 2005). It is therefore of interest to determine the prevalence of research in AD across time to assess the influence of this increasing prevalence and to compare it to the prevalence of research within a comparable genetically-linked central nervous system disorder, Huntington’s disease (HD), that is not associated directly with the aging process. It was hypothesised that the number of primary studies (randomised controlled trials and observational studies) would have increased to a greater extent in AD than HD as a result of the aging population.

The citation search successfully produced 5-yearly estimates for AD, HD, and all topics for the categories of interest (Table 1). In total, there were 12 820 265 publications during 1951 to 2005, with 57 466 relating to AD and 330 856 relating to HD. Across all topics there were only 45 publications made from 1951-1955. This reflects the pattern within the literature as a whole.

Over the past 10 years the interest in AD has been increasing, with 42-fold increases in the number of papers published within this disease area (Figure 1). In contrast, during the same time period publications in HD showed only a 4-fold increase. This disparity is particularly notable for probable RCTs, where there were 405-fold increases in AD but only 5-fold increases in HD. Across all categories the 4-fold increases for HD are similar to the increases observed in the literature in general (“all topics”), whereas the increases for AD are vastly higher, suggesting a much greater increase in publications within this field.

AD has an age-dependent prevalence in the general population and this aspect, and the overlap of symptoms with other neurological diseases, means that prevalence is increasing more rapidly than the increase in size of the general population (Figure 2). Several links to inherited genetic factors have been recorded, with reports of such linkages beginning from the early 1980’s onwards (Figure 3). Thus the overall pattern is one of increasing prevalence alongside increasing interest in the literature.

The prevalence of HD within the general population has been estimated to be fairly constant at 0.7 per 100 000 (Walker 2007). This results in a fairly stable increase in symptomatic disease that is in line with the increasing size of the general population (Figure 2). In contrast to AD, the discovery of the genetic linkage to Huntington in 1971 appears to have had little effect on interest in HD (Figure 3).

It was hypothesised that research within AD would have increased across time as a reflection of the greater importance of this disease within an aging population, in contrast to research into HD which was hypothesised to have increased at the same rate as publications in general, to reflect the relatively constant prevalence of this disorder. The results of the current research confirm this hypothesis, finding that publications within AD have increased many hundred-fold more during the past 30 years than similar publications within HD, a pattern observed across all categories of literature. Interestingly, the increase in publications within AD appears to have been enhanced by genetic linkages made from the early 1980’s onwards. In contrast, identification of genetic linkage does not appear to have contributed significantly to the pattern of publications within HD.

As a result of the aging world population, in the future there will be increasingly more people in the age groups most at risk for dementia and thus the prevalence of AD is likely to continue increasing (Alzheimer’s Disease International 1999). We suggest that the increasing interest in AD will continue as the population continues to age, resulting in a greater proportion of the literature devoted to this topic, it is likely that other disorders not related to age will receive less interest and thus progress with potential interventions for these disorders may be slowed.

It is important to consider the increased prevalence of these neurological conditions and how this may affect the aging population. This increase in prevalence reflects the influence of an aging population and the increased awareness of these conditions within the population.

A citation search was conducted in Medline for the years 1951 to 2005 (5-yearly time periods) on Alzheimer’s disease (AD), Huntington’s disease (HD), and all topics for randomised controlled trials (RCTs), economic studies (ES), observational studies (OS), and reviews (SIGN 2008) combined with search strings incorporating the MeSH terms for AD and HD and were run to provide an estimate of interest in these disorders. The total number of papers published in these disorders during each time period was derived using the MeSH terms alone. The search filters were used alone (without MeSH terms) to provide an estimate of the number of RCTs, ES, OS, and reviews published within each time period in total and the overall number of papers published within each time period was derived using the search term “the”. A x-fold increase (2001-2005/1976-1980) for each category of literature were calculated for both AD and HD and compared to the x-fold increase in research across all topics. The total prevalence of AD was calculated using prevalence rates per age group (Alzheimer Disease International 1999). The prevalence of HD was calculated using overall prevalence data from Walker (2007). These prevalence rates refer to the prevalence within developed countries and as such the population of developed regions (Population Division, DESA, United Nations) was used to estimate the overall prevalence of AD and HD across time.