impact of the aging of the world's population on the future prevalence. **Objective:** To investigate regional and gender differences in the doubling of Alzheimer's disease age specific incidence rates. **Methods:** We identified all studies in the peer review literature that reported age specific incidence rates for Alzheimer's disease. We modeled the logarithm of the incidence rate as a polynomial in age. We used both fixed effects models and random effects models to account for inter-study variation. **Results:** Alzheimer's disease incidence rates exponentially increase with increasing age. The overall estimate of the doubling time was 5.7 years (95% confidence interval 4.2 to 9.0.) The doubling times from studies performed in North America, Europe, and other parts of the world were 6.0, 5.8, and 5.0 respectively, and were not significantly different (p=.3). No significant differences were detected by gender (6.7 years for males; 5.3 for females, p=0.12). **Conclusion:** Doubling times of Alzheimer's disease incidence rates are remarkably similar among populations throughout the world. The variation in absolute incidence rates could be due to methodological and diagnostic differences among studies or indicate different underlying, risk factors.

O1-02-03 ASSOCIATED CONDITIONS IMPACTING LIMITATIONS AMONG THE US POPULATION WITH LIMITATIONS DUE TO ALZHEIMER'S DISEASE

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Background: The majority of AD patients have other morbidities that contribute to the progression and course of their AD. To properly develop and allocate resources requires an understanding of the other factors limiting functional independence in this patient population. **Objective:** To characterize the activity limitation due to other conditions in the US population who have self (or proxy) reported limitations in activity due to AD. **Methods:** These data are from the National Health Interview Survey (NHIS). The NHIS is a representative sample of the US civilian, non-institutionalized population. Data from 2001 through 2005 were combined. Analyses were limited to the subset of family members aged 60 years or more who were reported to have activity limitations due to dementia, senility or Alzheimer's disease by the household's survey respondent. Data are weighted to reflect total in the population. **Results:** A total of 443 subjects with limitations due to dementia were identified. These subjects represent an annualized number of 105,336 persons in the United States aged 60 years or more. 35% of subjects are married, with a median age of 83 years, with 83% white and 11% African-American. A proxy responded for 58% of subjects. In addition to dementia, activity limitations were reported due to other conditions. The proportion of subjects with other conditions limiting activities is summarized in the following table:

Activity limitations due to	Percent reporting limitations
Arthritis/rheumatism	26%
Heart conditions	16%
Hypertension	12%
Diabetes	10%
Depression, anxiety or emotional problems	10%
Musculoskeletal/connective tissue problems	10%

Overall, 56% of subjects had limitations due to other conditions in addition to their dementia-related limitations. During the 30 days prior to the survey, psychiatric and emotional issues were assessed. 'Everything is an effort' was reported by 20% for 'most or all of the time,' while 12% felt sad, 12% felt worthless, and 11% felt hopelessness. A recent decline in health was reported by 45%. **Conclusions:** Persons with AD have substantial functional limitation and generally have other conditions contributing to the functional limitations. To improve or maintain functional independence in AD patients will likely require a multifaceted approach across several disease states. Additional research will assist to define the impact that AD has on the development and progression of functional limitations related to co-morbid conditions.

O1-02-04 HIGHER SELF-PERCEIVED RISK OF ALZHEIMER'S DISEASE IS ASSOCIATED WITH LOWER DROPOUT IN A STUDY DISCLOSING GENETIC SUSCEPTIBILITY

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Objective: To assess factors associated with dropout in the REVEAL (Risk Evaluation and Education for Alzheimer's) Study, a randomized clinical trial of risk assessment, including APOE disclosure, for first-degree relatives of persons with AD. **Design/Methods:** We analyzed data on 420 participants who were eligible for, and expressed interest in, genetic risk assessment through the REVEAL Study. We conducted a logistic regression analysis with dropout as the dependent variable. Age, gender, race (African American vs. White), and perceived risk of AD were independent variables. Perceived risk was assessed by agreement with the statement "I believe I will someday develop AD." **Results:** Please see Table 1 for details of demographics. Dropout was not associated with age, race, or gender. However, adjusting for these variables, high perceived risk of AD prior to disclosure was a significant predictor of lower dropout (odds ratio 0.5, 95% CI 0.3-0.8, p = 0.0047). **Conclusions:** Among those interested in genetic susceptibility testing, participants who believed prior to enrollment they will develop AD were more likely to remain in the study. Our results suggest that baseline illness perceptions are more predictive of follow-through with genetic testing for AD than demographic characteristics.

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Table 1
Demographics and Results of Dropouts in REVEAL Study Protocol

REVEAL	Dropouts	Non-Dropouts	Total	p value
Number (n)	148	272	420	
Age	59.3±11.1	58.0±10.6	58.4±10.8	0.44
Sex (% Female)	101 (73.2%)	191 (70.2%)	292 (71.2%)	0.45
Race (% African American)	50 (36.5%)	51 (18.9%)	101 (24.7%)	0.30
High Self Perceived Risk	94 (69.1%)	222 (81.6%)	316 (77.4%)	0.0047

O1-02-05 DNA EPITOPE VACCINE PREVENTS AD LIKE PATHOLOGY IN 3XTG-AD MICE AND PROTECTS THEM FROM COGNITIVE DECLINE

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Background: Development of a clinically successful AD vaccine requires a delicate balance between induction of anti-Aβ antibody responses sufficient for therapeutic benefit and complete avoidance of potentially autoimmune T cell responses. **Objective:** To achieve this goal, we have engineered an epitope vaccine to selectively initiate B cell responses toward an immunogenic self-epitope of Aβ, while T cell help is provided by a genetically-linked non-self T cell epitope synthesized in multiple antigenic peptide (MAP) format. However, because the MAP backbone is not suitable for human trials, we have adopted an alternative strategy and developed a chemokine-based DNA vaccine that encodes three copies of self-Aβ B cell epitope ($A\beta_{1\text{-}11}/3A\beta_{1\text{-}11}$) and a foreign promiscuous T cell