OBJECTIVES: Previous research has shown that untreated insomnia has significant direct and indirect burden. The lifetime prevalence of major depressive disorder (MDD) is more than 17%, with up to 80% reporting comorbid insomnia. The purpose of this study was to estimate the economic burden of comorbid untreated insomnia within an adult depressed population.

METHODS: A large managed care claims database was used to identify MDD subjects (18 to 64 years) anytime between January 1, 1998 to November 30, 2007 using MDD-specific ICD-9-CM diagnoses. Depressed-insomniacs were selected from this cohort using insomnia-specific ICD-9-CM codes/hypnotic-use. Direct costs were compared with a 1:1 matched control group that had depression and no insomnia vs. depressed-insomniacs twelve-months prior to initiating insomnia treatment/diagnosis. Total direct costs included inpatient, outpatient, ER and drug costs. Multivariate regression analyses were conducted to control for factors that were different even after matching. Cost outcomes were analyzed using log-transformation and then retransformed to their original scale after applying smearing factor. All statistical tests were conducted using SAS 9.1.

RESULTS: A total of 41,594 controls were matched to 41,594 depressed-insomniacs on demographic characteristics, index-date, antidepressant use, plan type, and region using propensity-scoring technique. Depressed-insomniacs had statistically greater (p < 0.001) total outpatient visits 9.24 (SD = 10.14) vs control 7.92 (SD = 8.42); depression-related visits 4.32 (SD = 8.33) vs control 2.36 (SD = 5.32); and antidepressant prescriptions 5.28 (SD = 5.92) vs control 4.71 (SD = 5.27). Overall total direct costs for depressed-insomniacs were significantly (p < 0.001) higher than controls ($9835 vs. $8384) after matching and controlling for differences in age, location, plan type, index year, and comorbidity patterns. The $1451 difference in average medical expenditure per-subject reflected the estimate of direct cost of untreated insomnia in an elderly depressed population.

CONCLUSIONS: Untreated insomnia within an elderly comorbid depressed population is associated with significant direct costs. Future research needs to determine prevalence and cost-effectiveness of treating comorbid insomnia within this population.

OBJECTIVES: The lifetime prevalence of major depressive disorder (MDD) is more than 17%, of which up to 80% have comorbid insomnia. The purpose of this study was to estimate the economic burden of untreated insomnia within an elderly comorbid depressed population.

METHODS: A large managed care claims database was used to identify elderly MDD subjects between January 1, 1998 to November 30, 2007 using MDD-specific ICD-9-CM codes. Depressed-insomniacs were selected from this cohort using insomnia-specific ICD-9-CM codes/hypnotic-use. Direct costs were compared with a 1:1 matched control group that had depression and no insomnia vs. depressed-insomniacs twelve-months prior to initiating insomnia treatment/diagnosis. Total direct costs included inpatient, outpatient, ER and drug costs. Multivariate regression analyses were conducted to control for factors that were different even after matching. Cost outcomes were log-transformed and then retransformed to their original scale after applying smearing factor. All statistical tests were conducted using SAS 9.1.

RESULTS: A total of 2900 controls were matched to 2900 depressed-insomniacs on demographic characteristics, index-date, antidepressant use, plan type, index-year, and comorbidity patterns. The $1128 difference in average medical expenditure per-subject reflected the estimate of direct cost of untreated insomnia in an adult depressed population.