circular disturbance was found on the first day of the week, on Monday, with a gradually decreasing tendency towards the end of the week. Examination of variation according to age groups showed a significant difference only in case of TIA with consideration to daily variation. CONCLUSIONS: The decrease is higher from Friday to Tuesday in summary, the results of our study show that the incidence of an acute myocardial infarction and a transient ischemic attack shows characteristic variation with regard to seasons and the days of the week.

**PCV24**

**DAILY ALCOHOL CONSUMPTION AND RACE/ETHNICITY: THEIR RELATIONSHIP TO STROKE OR CORONARY ARTERY DISEASE IN THE US ADULT POPULATION**

Becton TL, Campbell HP

Department of Veterans Affairs Cooperative Studies Program, Albuquerque, NM, USA

**OBJECTIVES:** Atherosclerotic disease is the leading cause of mortality in the US. Modifiable and non-modifiable risk factors need to be studied simultaneously for stroke and coronary artery disease (CAD). We examined the association between daily alcohol consumption, race/ethnicity, stroke and CAD. **METHODS:** We used the 2005 Behavioral Risk Factor Surveillance System (BRFSS), a nationally representative cross-sectional survey. We performed Chi-square tests to determine associations between daily alcohol consumption (<1, 1–2, >2 drinks) and race/ethnicity (Black, Asian, Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, White, Hispanic, Multiracial, and Other) with stroke and CAD. Identifying daily alcohol consumption and race/ethnicity as independent variables and stroke or CAD as dependent variables, we assessed the relationships in multivariate logistic regression after controlling for modifiable and non-modifiable risk factors. Modifiable risk factors included hypertension, hyperlipidemia, diabetes, body mass index, exercise, dietary fruit/vegetable consumption, smoking status, education, and income. Non-modifiable risk factors included gender and age. **RESULTS:** We analyzed 269,554 cases. Compared to those having >2 drinks/day, individuals who reported 1–2 drinks/day were found to have 1.36 [95% CI = 1.31–1.41] greater odds of stroke [p = 0.0001] and 1.33 [95% CI = 1.17–1.51] greater odds of CAD [p < 0.0001]. For stroke and CAD, American Indian/Alaskan Natives had 1.65 [95% CI = 1.41–1.94] and 1.41 [95% CI = 1.24–1.62] greater risk, respectively, than Whites [p = 0.0001 each]. Hispanics had 0.70 [95% CI = 0.62–0.79] lower odds of stroke [p = 0.0001] while Blacks had 1.18 [95% CI = 1.08–1.28] greater odds [p < 0.0001] than Whites. Blacks had 0.76 [95% CI = 0.70–0.82] and Asians had 0.74 [95% CI = 0.61–0.90] lower odds of CAD than Whites [p < 0.0001 each]. **CONCLUSIONS:** Although there are similar findings between those having 1–2 drinks/day, we do not advocate drinking above the dose range. Additional other information does not support this action. We note existing literature supports a beneficial effect of having 1–2 drinks/day compared to <1 on stroke and CAD. Race/ethnicity is strongly associated with stroke and CAD.

**PCV25**

**SMOKING AND STROKE IN THE CHINESE SMOKING POPULATION**

Wang L1, Li Y2

Sichuan University, Chengdu, Sichuan, China, 3West China Hospital, Sichuan University, Chengdu, China

**OBJECTIVES:** Worldwide, the association of passive smoking with development of stroke has been ascertained. However, it remains unknown of the magnitude of the association in the Chinese population. We thus systematically reviewed the published studies worldwide. **METHOD:** We searched Medline, EMBASE, and three other Chinese databases from their inception to June, 2008. We included case-control and cohort studies that investigated the association of smoking with stroke, and that provided data on the magnitude of the association. Two reviewers screened the eligibility, assessed the extent of the bias, and extracted data independently. We obtained the unadjusted and adjusted estimates of studies. We pooled the trial data using the random-effect model and explored the heterogeneity by the pre-specified variables. **RESULTS:** We included 49 studies (n = 58,872), 8 of which were cohort studies (n = 42,751) and 41 case-control studies (cumulative cases 7 883, controls 9 590). Smoking increased the risk of stroke by 75% (OR 1.75, 95% CI 1.51 to 2.03). Pooling of adjusted estimates of 31 studies (n = 26,028) showed the risk of stroke was increased by 81% in smokers (1.81, 1.57 to 2.08). The magnitude of the association was not statistically different in different type of stroke: hemorrhagic stroke 1.65 (1.29 to 2.11) and ischemic stroke 1.79 (1.20 to 2.68). No dose-response relationship was found between amount of smoking and the risk of stroke. **CONCLUSIONS:** The increased risk of stroke associated with smoking in the Chinese population has been ascertained.

**PCV26**

**HEALTH CARE UTILIZATION AND RISK OF CARDIOVASCULAR DISEASE ASSOCIATED WITH METABOLIC SYNDROME**

Gao Y1, Liu G2, Luo N3

1Southwestern University of Finance and Economics, Chengdu, Sichuan, China, 2Peking University, Beijing, Beijing, China, 3National University of Singapore, Singapore, Singapore

**OBJECTIVES:** To analyze the health care utilization and risk profiles of patients with metabolic syndrome (MS) based on subgroups identified by a latent class analysis. **METHODS:** Utilizing the medical record database from GE Healthcare, we estimate a set of regressions to take a closer look at the effect of metabolic syndrome (MS) on patients' hospital admission, office visit, and the risk of developing one particular type of cardiovascular disease, coronary heart disease (CHD). Patients are identified as having MS by using the guidelines proposed by the National Cholesterol Education Program Adult Treatment Panel III. We conduct the analysis in this study in the following steps; first, we adopt negative binomial regression models to estimate the effect of MS on hospital admission and office visit; second, Probit models are used to examine the relationship between MS and CHD, and third, based on the Latent Class Analysis, which identifies five subgroups of MS patients by risk factors, are integrated into the regression estimations. **RESULTS:** We find that patients with MS have higher number of hospital admissions and office visits, and we are likely to develop CHD than those without MS, and 2) that MS patients with abnormal blood pressure are more likely to be hospitalized than MS patients with normal blood pressure. Strikingly, we find, by integrating the results from a latent class analysis, that MS patients with the simultaneous presence of three risk factors (abnormal HDL, waist circumference, and blood pressure), are more likely to develop CHD than other types of MS patients. **CONCLUSIONS:** LCA offers a useful method to help better classify MS patients into sub groups by shared group-specific characteristics that would be hard to measure otherwise. Based on the LCA study, we confirm that MS patients with multiple risk factors are more likely to develop CHD conditions.