descriptors, PHQ-9 data, ICD-9CM depression codes, and antidepressant drugs. Analytical tests included Cochran-Armitage test for trend, Cochran-Mantel-Haenszel test and logistic regression modeling for year of maximum PHQ-9 score. PHQ-9 tests were considered independent only if they were: initial events; 10+ months after the most recent test; or immediately following a prior test with a total score of less than 5(normal). The logistic regression model included any depression diagnosis (DEP), year, sex, age, maximum PHQ-9 score-5 categories from Normal to Severe Depression, any PCP measured PHQ-9, and any behavioral health measured PHQ-9. **Results:** Study population included 294 PCP (~181 annually) and 216,494 patients (~105,240 annually). The measurement of independent PHQ-9 in patients managed by primary care providers increased from 0.7% (2005) to 13.5% (2011); Z = 153.34, *P* <0.001. Patients with an independent PHQ-9 test were 17.87 (95% CI: 17.43–18.31) times more likely to have a diagnosis of depression. After adjustment in the logistic model, patients with DEP were more likely to be prescribed an antidepressant drug, rate ratio = 3.56 (3.33–3.80). As PHQ-9 scores increased, associated rate ratios (compared to normal PHQ-9) increased incrementally, 1.26 (1.82-1.35), 2.07 (1.90-2.25), 3.05 (2.79-3.34), and 4.18 (3.72-4.70), for PHQ-9 scores 5-9, 10-14, 15-19 and 20+, respectively. **Conclusions:** Our study found PHQ-9 use in primary care clinical practice increased significantly over 7 years. Patients having PHQ-9 testing in primary care were more likely to have a diagnosis of depression. Patients with increased severity of PHQ-9 scores were substantially more likely to be prescribed an antidepressant drug. PHQ-9 data appear to increase the diagnosis of clinical depression and prescribing of antidepressant drugs in primary care.

Keywords: Patient-Reported Outcomes; Depression; Primary Care
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PS1-30:

Examining Health Service Utilization in the Year Prior to Suicide Death

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Background/Aims: Suicide is the 10th leading cause of death in the United States, warranting public health prevention efforts. Such efforts require accurate risk identification. However, the US Preventive Services Task Force has suggested that there is not enough information available to recommend screening for suicide risk in primary care. While research suggests that many individuals receive services before death, studies have been limited by small samples. This study used the largest US general population sample to date to examine the frequency, types and patterns of health services utilized prior to suicide as well as variations by subgroup. **Methods:** Health care utilization and demographic data from six health systems of the Mental Health Research Network were pre-matched with official mortality records and census files using the Virtual Data Warehouse. In total, 2237 suicide deaths were identified using ICD-10 codes, X60-X84. Reverse survival curves were calculated estimating weekly utilization for the year prior to death. These data were stratified by age, sex, insurance type, socioeconomic indicators, and cause of death. **Results:** Suicide death was more common among men (77%; n = 1728) and occurred more frequently by violent means (77%; n = 1730). Approximately 81% (n = 1806) received services in the year before death, with nearly 40% (n = 900) making a visit within a month before death. While 44% (n = 992) made any visit that included a mental health diagnosis in the year before death, most visits occurred in primary care without a mental health diagnosis (59%; n = 1320). Non-mental health primary care visits and outpatient behavioral health visits were most common in the two weeks before suicide. Service use occurred most often among women (87%; 441 of 509), older adults (65+ years; 96%; 386 of 401), and those who died by non-violent means (85%; 422 of 498). The relative frequency of mental health and general medical utilization differed markedly between age groups. **Conclusions:** Most individuals who died by suicide also used health services within a year before death. Here, over half of these individuals did not have a mental health diagnosis, and were seen for other reasons in primary care. This study may guide targeted public health prevention efforts, including risk identification strategies.

Keywords: Suicide; Treatment Utilization
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PS1-31:

Role of Multiple Chronic Conditions in Longitudinal Cognitive Decline

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Background/Aims: Cognitive decline associated with dementia imposes substantial economic and social burden on families and healthcare systems. Cognitive decline may be influenced by chronic disorders (e.g., heart disease, hypertension), through the development of vascular dementia or Alzheimer's disease (AD). Our goal is to identify specific or clustered chronic conditions impacting transition from normal cognition to cognitively impaired non-dementia (CIND) to dementia, adjusting for demographic and behavioral factors. **Methods:** This study used data from the Aging Demographic and Memory Study (ADAMS) subsample of the Health and Retirement Survey (HRS). HRS is a nationally representative sample of US non-institutionalized adults. The ADAMS subsample (N = 1770; 70 years or older) was selected from the HRS 2000 or 2002 waves, based on self- or proxy-reported cognition score. Neurological assessments were performed July 2001-December 2003. Two follow-up visits in June 2006-December 2009 assessed changes in cognitive functioning. We analyzed data on 308 persons over three assessment occasions excluding persons diagnosed with dementia at baseline. **Results:** At baseline, 70% (211) of 308 sample respondents had normal cognition and 31% (97) were CIND. Among respondents with normal cognition, 33% (70) were later diagnosed with CIND and 8% (18) developed dementia, while 44% of those with CIND at baseline developed dementia. Comparing VDW data to these national data, at Scott & White only 4% of persons age 65 or over were diagnosed with dementia in 2010, suggesting a low burden from cognitive decline on this health plan where members are relatively young (US population 13% over age 65 vs. Scott & White 10%). Analysis of trends in cognitive decline by comorbidity, demographics, and lifestyle factors are in progress. **Conclusions:** At the completion of this project, we will better understand the timing and structure of interventions that could potentially delay cognitive decline and lower associated health care burden.

Keywords: Dementia; Cognitive Impairment; Alzheimer's Disease
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Pharmacoepidemiology

B3-2:

Validation of Administrative and Claims Data for the Identification of Anaphylaxis Cases in the Mini-Sentinel Distributed Database

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Background/Aims: Few published studies have evaluated the validity of health plan administrative and claims data to identify anaphylaxis. Given the severity of the condition, drug-induced anaphylaxis is a major public health concern. We developed and evaluated the positive predictive value (PPV) of algorithms for identifying anaphylaxis in the Mini-Sentinel Distributed Database. **Methods:** We conducted a retrospective study among members enrolled in 8 geographically diverse health plans (HealthCore, Inc.; Humana; three member health plans within the Kaiser Permanente Center for Effectiveness and Safety Research; and two member health plans in the HMO Research Network). Diagnosis and procedure codes were used to identify potential cases of anaphylaxis recorded in the Mini-Sentinel Distributed Database between January 1, 2009 and December 31, 2010. A random sample of medical charts (n = 131) was abstracted and adjudicated