PS1-18:

Feasibility of Implementing Screening Brief Intervention and Referral to Treatment (SBIRT) Within Multiple Health Settings

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Background/Aims: Screening for alcohol and drug use has been identified as a high prevention priority for primary care by the US Preventive Services Task force; however, such screening is not routinely performed. SBIRT is a framework for population-based screening and intervention with the primary goal of reducing risky substance use before it progresses to dependence. There has been limited uptake of SBIRT in any large health system, thus the Substance Abuse and Mental Health Services Administration (SAMHSA) is supporting a series of studies, led by Kaiser Permanente Colorado (KPCO), to determine strategies to promote large-scale implementation. Qualitative examination of the feasibility of implementing SBIRT in primary care settings was previously conducted at KPCO; a continuation of this work at Henry Ford (HF) and Lovelace Health System (LHS) is currently being conducted. **Methods:** Individual interviews and focus groups will use selective and snowball sampling of clinical leaders and staff, with the goal to assess value placed on systematized substance use screening in primary care, feasibility of implementing SBIRT, potential barriers, solutions, and facilitators to implementation, and strategies for gaining stakeholder support. Episodic profiles or debriefing reports will be generated shortly after every interview with leaders and staff at LHS and HF to facilitate iterative analysis. **Results:** Qualitative findings from KPCO indicated the following key influencers: scope of practice, particularly for nurses, medical assistants and front desk staff; competing priorities for primary care physicians; and relationships between primary care, behavioral health, and chemical dependency departments. Interviews to be completed at LHS and HF will assess general feasibility as well as investigate whether KPCO's findings generalize to other health systems. Additionally, interviews will focus on the impact of patient cultural differences for SBIRT, where HF, LHS, and KPCO have distinct racial and ethnic patient populations. **Conclusions:** The goal is to provide a more comprehensive understanding of the facilitators and barriers to SBIRT implementation across multiple health systems.

Keywords: SBIRT; Screening and Brief Intervention; Alcohol and Drug Prevention in Primary Care

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PS1-19:

Impact of Motivational Interviewing to Reduce Alcohol Use Among Depression Patients

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Background/Aims: Hazardous drinking can exacerbate depressive symptoms and have a negative impact on depression treatment outcomes. Many individuals with depression who drink at hazardous levels first seek treatment in mental health settings. Yet prior studies have not tested the efficacy of promising interventions such as Motivational Interviewing (MI) to reduce alcohol consumption among depression patients. We examined MI to supplement depression treatment for patients who report recent hazardous drinking (3+ drinks for women or 4+ drinks for men), in an outpatient psychiatry clinic in a managed care setting. **Methods:** The sample consisted of 300 patients ages 18 and over in an outpatient Kaiser Permanente Northern California (KPNC) clinic in Union City, California. Participants were randomized to receive either 3 sessions of MI or to a control condition in which they received a brochure regarding alcohol and drug use risks. Follow-up interviews were conducted by telephone at 3, 6 and 12 months, with measures including alcohol and drug use, depression symptoms, and functional status. Participant interview data were linked to electronic medical records including health services utilization. **Results:** In the 30 days prior to the baseline interview, average number of days of hazardous drinking was 4.3 days (sd = 5.5). Based on initial findings at 3 months, among participants reporting any hazardous drinking at baseline, MI-treated participants were less likely than controls to report hazardous drinking at 3 months (P = .043). Further results to be presented include longer-term alcohol and drug use outcomes, and the impact of the intervention on depression symptoms and patterns of health services utilization. **Conclusions:** Initial findings demonstrated that MI is a promising intervention to reduce hazardous drinking among depression patients and can be provided as a supplement to usual psychiatric treatment. Important next steps in this program of research will investigate antidepressant treatment adherence, effect of the intervention on referral to specialty chemical dependency treatment when needed, impact of the intervention on other health services utilization (such as emergency department), and cost effectiveness.

Keywords: Alcohol; Depression; Health Services

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PS1-20:

Integrating Alcohol and Drug Use Screening for Adolescents into Mental Health Settings: Rationale, Missed Opportunities and Outcomes

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Background/Aims: Adolescent risk behaviors are often highly clustered, so screening in Mental Health (MH) settings may be even more important for this population than for adults. We examined the role of screening in MH by describing findings from adolescent studies that examined co-occurring MH and substance use (SU) disorders, treatment utilization, and outcomes in an integrated health plan. **Methods:** We examined: 1) the prevalence of co-occurring disorders (CODs), and factors associated with treatment initiation among adolescents (N = 2,055) with CODs; 2) predictors of referrals by pediatricians to MH or SU treatment of adolescents with SU disorders (N = 400); 3) the co-occurrence of MH disorders, pathways to treatment and outcomes in a treatment sample of adolescents (N = 419); and 4) we used data from an RCT of adolescent Screening, Brief Intervention, and Referral to Treatment (SBIRT) (N = 1,070), to examine the prevalence of co-occurring problems, barriers to identification, referral, and treatment initiation. **Results:** Teens with CODs identified in MH were more likely than those identified in primary care to initiate treatment (P = .05). In the referral study, twice as many teens with SU disorders were referred to MH than SU treatment. In the SU treatment sample, we found: 1) high levels of CODs; 55% (230/419) had a MH diagnosis, compared to 2% (41/2077) of matched controls (P <.0001); and 2) low levels of identification and referral by psychiatric providers; fewer than half the sample seen in MH prior to intake received an SU diagnosis. In the SBIRT study, 30% (941/3177) of the teens screened positive for either SU, MH risk, or both. Many teens initially referred by providers for MH concerns exhibited SU risk upon further assessment. **Conclusions:** We found high rates of CODs among the adolescents in the health system, and that SU problems and CODs are insufficiently identified in MH and Primary Care settings. We discuss these missed opportunities for alcohol and drug problem identification, and implications and opportunities for SBIRT for adolescents in MH.

Keywords: SBIRT; Alcohol; Adolescents

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PS1-29:

PHQ-9 Use in Clinical Practice: Electronic Health Record Data at Essentia Health

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Background/Aims: The study aims to discover the prevalence of PHQ-9 use in primary care provider (PCP) clinical practice over a 7-year timeframe, and to determine the effect of PHQ-9 data on PCP diagnosing clinical depression and prescribing antidepressant drugs in clinical practice. **Methods:** We conducted a retrospective case series study analyzing data in the electronic medical records of Essentia Health, a large healthcare delivery system in Upper Midwest from 01/01/2005-12/31/2011. All patients age ≥18 managed by a PCP were included. Data collected: patient demographics, provider

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