

at four time points: 1-month pre-ordinance, 1-month post-ordinance, 3-month post-ordinance, and 6-month post-ordinance. Air quality was measured using a Sidepak AM510 Personal Aerosol Monitor which determines PM<sub>2.5</sub> exposure. Measurement periods lasted 60- 75 minutes in each venue, with data collection occurring during evening business hours on Thursday nights. Air quality risk was determined by the U.S. EPA Air Quality Index. Repeated measures ANOVA indicated a statistically significant difference ( $P < .001$ ;  $\eta^2 = .889$ ) in PM<sub>2.5</sub> levels for the four measurement points. PM<sub>2.5</sub> was  $202.17 \pm 97.89$  (Mean  $\pm$  SD) at 1-month pre-ordinance,  $25.53 \pm 14.18$  at 1-month post-ordinance,  $18.00 \pm 8.43$  at 3-month post-ordinance, and  $10.77 \pm 2.45$  at 6-month post-ordinance. At the pre-ordinance measurement, no venue was found to be in the “Good” (minimal risk) range of the U.S. EPA Air Quality Index. At 1-month post-ordinance, 30% of venues were in the “Good” range with this increasing to 80% at 6-month post-ordinance. The results of this study indicate that pubs/bars that are not protected by comprehensive smoke-free ordinances expose patrons and employees to significant environmental health risks. Adoption of smoke-free ordinances yield immediate reductions in health risks with continued air quality improvements up to 6-months post-ordinance.

#### **Awareness of HIV Sero-status and Sexual Risk Behaviors Among High Risk Heterosexuals**

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The Houston Metropolitan Area (HMA) is a participant in the National HIV Behavioral Surveillance Study (NHBS) and surveys groups at high risk for HIV. CDC estimates that one-fifth of HIV infected individuals are unaware of their infections. Awareness of sero-status may lead to decreases in risky sexual behaviors. HIV infection resulting from heterosexual transmission may be underestimated and may be increasing. Few studies on risk behaviors among heterosexuals have been conducted, particularly those comparing behaviors based on knowledge of HIV sero-status. To assess the awareness of HIV sero-status among high risk heterosexuals and evaluate differences in risk behaviors between those who knew or did not know their HIV status prior to testing at study entry. A secondary data analysis was performed using HMA NHBS HET-3 data collected in 2013. Analysis was conducted using Stata software 10.3. The prevalence of knowing or not knowing HIV status was determined. We then assessed whether there are statistical differences in HIV risk behaviors between those two groups by using a Chi-squared test. The risk factors measured included multiple sexual partners, exchange partners, unprotected sex, and use of illicit drugs. Almost three-quarters of participants knew their HIV status prior to enrolling in the study. Those who did not know their HIV status were significantly more likely to engage in sex with multiple partners ( $p = 0.000$ ) but less likely to use illicit drugs ( $p = 0.000$ ). Knowledge of HIV serostatus may influence behavior. A greater percentage of HMA high risk heterosexuals did not know their status compared to the national average. Differences in some HIV risky behaviors were observed supporting the need for

targeted prevention activities in this high risk group.

#### **Comparison of occupational household and industrial cleaner exposures reported to the Texas Poison Control Network during 2000-2014**

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Cleaners, particularly when misused, can cause serious morbidity such as respiratory diseases (bronchitis, pneumonia), may lead to cancer, and may even be fatal. There is limited literature on occupational exposures to cleaning products. The purpose of this study was to characterize occupational household and industrial cleaner exposures reported to poison centers. Cases were occupational household and industrial cleaner exposures reported to Texas poison centers during 2000-2014. Cases were divided into household and industrial cleaners. The distribution of the cases was determined for various factors and comparisons made between the two product groups. There were 4,747 household cleaner and 2,201 industrial cleaner occupational exposures. Patients 20 years or older accounted for 87.2% of household and 89.3% of industrial cleaner exposures; 53.6% of household cleaner patients were female while 52.9% of industrial cleaner patients were male. The most common exposure routes among household and industrial cleaner cases, respectively, were ocular (35.5% vs 40.8%), inhalation (28.7% vs 23.9%), dermal (20.1% vs 29.7%), and ingestion (24.4% vs 16.3%). Most (51.4%) of household cleaner exposure patients were managed on site while 54.7% of industrial cleaner exposure patients were already at/en route to a healthcare facility. The outcome was not serious in 75.2% of household cleaner and 68.4% of industrial cleaner exposures.

Almost 70% of occupational cleaner exposures reported to Texas poison centers involved household cleaners. The preponderance of patients were adults. While the majority of patients exposed to household cleaners were female, most of the patients exposed to industrial cleaners were male. The most common routes of exposure were ocular, inhalation, dermal, and ingestion, although the proportion and order of these routes differed by type of cleaner. Most household cleaner exposures were managed on site while the majority of industrial cleaner exposures were managed at a healthcare facility. Most exposures did not result in serious outcomes.

Assuring a competent public and personal health care workforce for Texas. The case of Sam Houston State University Miguel A. Zuniga, MD, DrPH, Stephen Brown, PhD, Amanda Scarbrough, PhD, William Hyman, PhD, Jack Turner, PhD, Rosanne Keathley, PhD

Sam Houston State University (SHSU) created the College of Health Sciences in 2013 and the Department of Health Services and Promotion in 2014 to contribute

to the optimization of health at the individual and population health levels. The purpose of this presentation is to disseminate the comprehensive approach to the development of professional degrees to address the continuum of individual, system, and population health needs in Texas. At the undergraduate level, the BS in Health Sciences with concentrations in pre-professional programs (i.e. pre-medicine) is directed to increase the competitiveness of applicants to health science professional degrees; the BA in Bilingual Health Care Studies focuses on improving health one patient at the time by training patient navigation professionals that are culturally and linguistically competent in Spanish and other cultures and languages; the BS in Health Care Administration emphasizes education in business and health sciences to enhance efficiencies at the system level of health care delivery, the BS in Wellness Management is directed to preparing health and

wellness professionals for the corporate and government-wide environments, and the BS in Public Health focuses on population health improvement by offering three tracks, the community health, the pre-nursing, and the pre-occupational health concentration. At the graduate level, the department is training the next generation of health promotion professionals through an MS in Health Education and is implementing the MS in Health Care Quality and Safety to support excellence in health care delivery; and the MPH in Correctional Health to train specialists in health administration for the offender populations across the nation. The spectrum of educational programs at SHSU is supported by the high level of employment opportunities projected for health professionals in Texas and the nation. SHSU is committed to fulfilling the promise of assuring a competent public and personal health care workforce for Texas.

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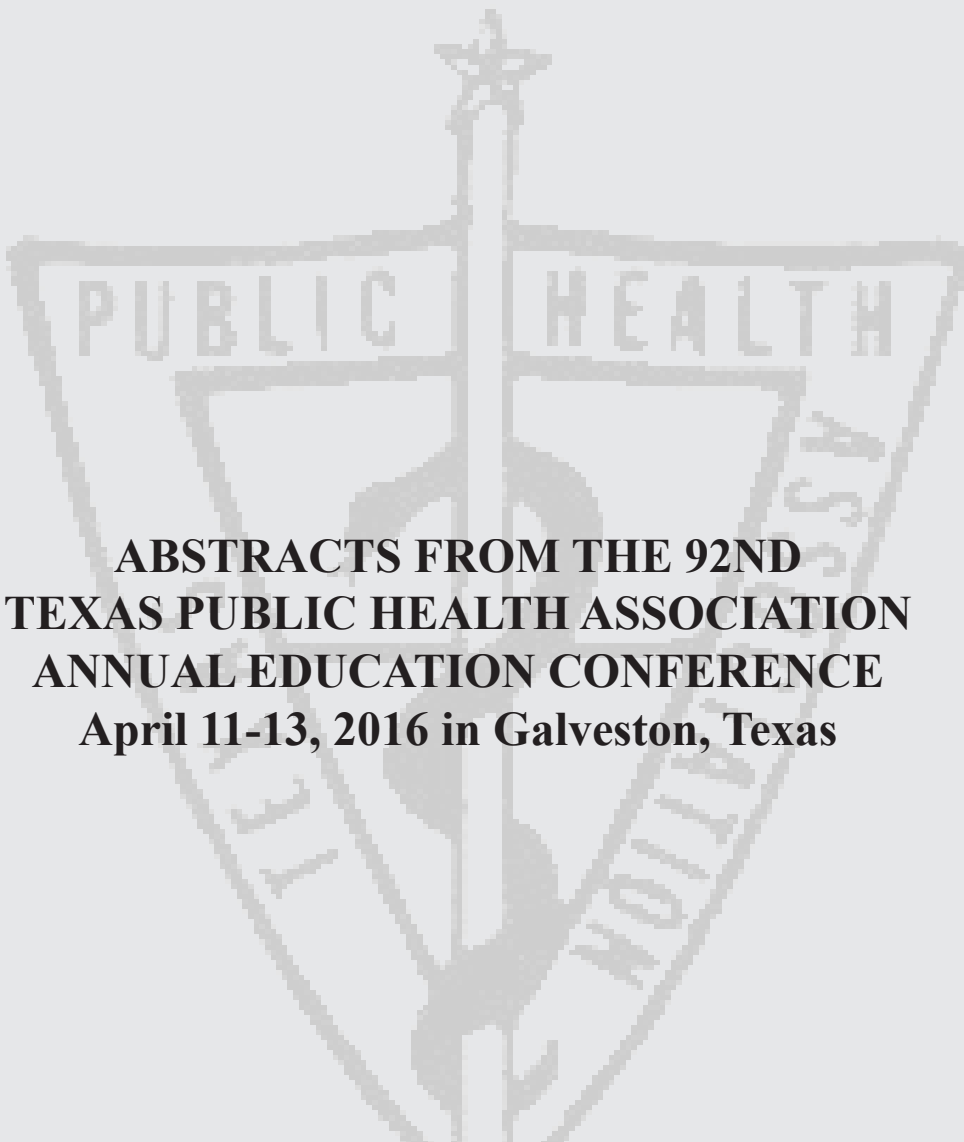
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