2017 CSTE ANNUAL *Conference*

BOISE *Idaho*

JUNE 4-8

Cultivating an Environment for Better Health

RWJF AWARD

CSTE Award in Addressing Racial and Ethnic Disparities

This is the tenth annual presentation of the "Robert Wood Johnson Foundation (RWJF) National Award for Outstanding Epidemiology Practice in Addressing Racial and Ethnic Disparities" by the Council of State and Territorial Epidemiologists (CSTE). This award was established to recognize an individual presenter at the CSTE Annual Conference whose professional work advances public health knowledge through epidemiology and applied research in racial and ethnic disparities and improves public health practice through effective use of data and epidemiology.

There were over 900 abstracts submitted for participation in the 2017 CSTE Annual Conference. In total, 15 abstracts were considered for the award. Of those abstracts that met the criteria for consideration, five finalists were chosen.

CSTE Health Disparities Subcommittee co-leads, Duc Vugia and Jim Hadler convened a panel of judges to select the five finalists from abstracts submitted to the CSTE Annual Conference Planning Committee. Judges used the following criteria for selecting the award recipient:

O Impact of work to the field of eliminating health disparities

O Contribution/Translation to Practice

O Policy Implications for evoking long term change in eliminating and preventing health disparities

O Quality of poster or breakout session presentation

CSTE will present one of the finalists a plaque to commemorate this tenth annual award together with an honorarium valued at $1,000. The award will be presented on Tuesday, June 6th at the CSTE President's Banquet.

Presentations are indicated on the program agenda with double asterisks (**).

ABSTRACT REVIEW COMMITTEE

CSTE is appreciative of the review committee who volunteer their time to make this award a reality. The role of the review committee is to review and score the eligible abstracts submitted to the CSTE Annual Conference Planning Committee and review and score the finalist presentations for the RWJF Award winner. If you are interested in participating on this committee, please contact the CSTE national office. The 2017 RWJF Award Review Committee consists of the following professionals:

Duc J. Vugia, MD, MPH is Chief of the Infectious Diseases Branch at the California Department of Public Health.

James L. Hadler, MD, MPH is a senior epidemiologist with the Connecticut Emerging Infections Program, and a consultant to the NYC Department of Health.

Elizabeth L. Lewis-Michl, Ph.D., is Director of the Division of Environmental Health Assessment in the Center for Environmental Health at the New York State Department of Health.

Sonja S. Hutchins, MD, MPH, DrPH, FACPM, Captain USPHS, is a Senior Medical Advisor in the Office of Minority Health and Health Equity at the Centers for Disease Control and Prevention in Atlanta, GA.

Khosrow Heidari, is a Senior Epidemiologist in the Bureau of Drug Control at the South Carolina Department of Health and Environmental Control.

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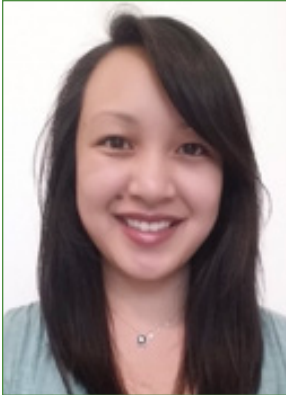
CORINA CHUNG, MS

San Mateo County Health Department

Corina Chung is an epidemiologist at the County of San Mateo Health System where she focuses on spatial and social epidemiology and leads efforts on spatial analytics and visualization. She previously worked at the Asian & Pacific Islander American Health Forum and UC Berkeley School of Public Health. She has a Master's degree in Geographic Information Science & Technology from the University of Southern California and a Bachelor's degree in Public Health from UC Berkeley.

#8411 A Spatial Analysis of Tobacco Retail Density and Neighborhood Demographics **

SESSION	Chronic Disease / MCH / Oral Health I - Cardiovascular Disease and Tobacco Use
PRESENTATION	JUNE 6 - 4:20 PM

★ ABSTRACT

BACKGROUND

The harmful effects of tobacco use have been well documented; however, millions of Americans continue to smoke and public health practitioners have expressed concerns about tobacco retail locations in minority and low-income neighborhoods. This study's aim was to determine if tobacco retail density was higher in minority and low-income neighborhoods in San Mateo County. The San Mateo County Health Department predicted that neighborhoods with higher percentages of minority populations and lower socioeconomic status had a higher density of tobacco retailers.

METHODS

Tobacco retail data was collected through The Healthy Stores for a Healthy Community census survey of retailers licensed to sell tobacco in 2016. Sociodemographic data was compiled from the 2014 American Community Survey. Tobacco retail density was calculated as number of retailers per square mile by census tract. Spatial grouping analysis (in ArcGIS) was conducted to classify census tracts into high and low tobacco retail density categories, as well as categories based on high and low values of percent race (Asian, Black, Latino, and White), median household income, percent below 200% Federal Poverty Level (FPL), percent with a high school degree or less, and percent unemployed. Census tracts were grouped into one of two categories where census tracts with the most similar attributes were grouped into one category and census tracts with the most differing attributes were grouped into the remaining category. Descriptive statistics were conducted for each group to compare to global values.

RESULTS

The global mean of tobacco retail density per square mile was 5.0 compared to Group 1's mean of 12.7 and Group 2's mean of 2.9. Group 1 (high tobacco retail density) contains census tracts with highest values of percent below 200% FPL, percent Latino, percent with a high school degree or less, percent unemployed, and percent Black. Group 2 (low tobacco retail density) contains census tracts with highest values of percent White, median household income, and percent Asian. Spatial grouping analysis findings indicate that tobacco retailers occur in areas in San Mateo County where there are a higher percentage of individuals who are Latino, Black, live below 200% FPL, have a high school degree or less, and are unemployed.

CONCLUSIONS

Neighborhoods with higher percentages of minority populations and lower socioeconomic status are more likely to have a higher tobacco retail density. Public health programs and policies seeking to reduce tobacco use may consider targeting minority and low-income neighborhoods to reduce exposure to tobacco retailers.

MARY E COX, MPH

North Carolina Department of Health and Human Services

Mary Beth Cox is an epidemiologist with the North Carolina Division of Public Health. In the six years since receiving her Master of Public Health in Epidemiology and Global Health from New York Medical College, Ms. Cox has served as a Peace Corps Volunteer in Malawi and worked in communicable disease surveillance in New York and North Carolina. She joined the Injury and Violence Prevention Branch in January 2016 as an epidemiologist focusing on alcohol and other drug use. Ms. Cox currently serves on several state and national workgroups aiming to reduce alcohol and other drug morbidity and mortality.

#8113 Racial Analysis of the Drug Epidemic in North Carolina, 2000-2015 **

SESSION	Substance Abuse - Mental Health and Disparities
PRESENTATION	**JUNE 5 - 4:20 PM**

★ ABSTRACT

BACKGROUND

Recent headlines have suggested that the current drug epidemic has garnered national attention because, unlike other drugs, opioids and heroin are killing white males at high rates. Curious about the changing landscape of the drug epidemic in our own state, we analyzed the demographic breakdown of drug overdose deaths in North Carolina (NC) from 2000-2015.

METHODS

Using Vital Records death certificate data, we examined unintentional deaths involving medication or drugs, heroin, methadone, other opioids, other synthetic narcotics, and cocaine from 2000-2015 in NC. Mortality rates were calculated by race/ethnicity, sex, and age for each drug type for the entire study period. Mortality rates were also calculated for five-year time periods by each drug type and race/ethnicity to identify any trends over time.

RESULTS

During the study period, American Indians had the highest death rates for medication/drug, other opioids, other synthetic narcotics, and cocaine; whites had the highest death rates in heroin and methadone and the second highest rates for medication/drug, other opioids, and other synthetic narcotics; and blacks had the second highest rates for cocaine. Death rates were highest among males and among ages 25-54 for all drug types. Trends over the five-year time periods showed that rates of unintentional medication/drug deaths and other opioid deaths have increased across all races. White and American Indians had the most dramatic increase in death rates while increases among blacks and Hispanics were smaller. Heroin deaths rates have increased the most among whites. Methadone death rates have decreased in recent years except among American Indians. Other synthetic narcotic deaths rates have increased for whites and blacks, and decreased for American Indians. Cocaine death rates have increased for whites, blacks, and American Indians, and is now highest among American Indians.

CONCLUSIONS

In NC, death rates were higher among whites than blacks in all drug categories except cocaine. However, our results showed that American Indians had rates as high or higher than white and black populations in almost every drug category. While the media may imply that the opioid and heroin epidemic are a white male problem, our data show that American Indians have the highest rates in our state. These results suggest a need for overdose prevention interventions tailored to the American Indian population in North Carolina.

CRYSTAL GIBSON, MPH

Wisconsin Department of Health Services

Crystal Gibson currently serves as Epidemiologist for the Opioid Harm Prevention Program at the Wisconsin Division of Public Health. In her current role, Crystal provides analytic and epidemiologic support to state and local partners working to address the opioid epidemic. She earned her Master's degree in social and behavioral sciences at Yale University and recently served as a CDC/CSTE Applied Epidemiology Fellow in Maternal and Child Health in Wisconsin. She has worked in diverse content areas including chronic mental illness, sexual and reproductive health, and substance use.

#8461 Mental Health and Substance Use Hospitalizations Among Native American Women of Reproductive Age, Wisconsin, 2011-2015 **

SESSION	Substance Abuse - Mental Health and Disparities
PRESENTATION	**JUNE 5 - 5:00 PM**

ABSTRACT

BACKGROUND

Substance use during pregnancy has negative consequences for infants, including preterm birth, low birth weight, and neonatal abstinence syndrome (NAS). In Wisconsin, there are racial and ethnic disparities in maternal substance use and NAS. Notably, the maternal substance use rate at delivery hospitalization among Native American women is two times the rate among White women, and the NAS rate among Native American infants is three times the rate among White infants. Identifying women at risk of substance-exposed pregnancies, including those affected by mental health and substance use (MHSU) disorders, is critical in optimizing outcomes for mothers and infants. We examined the prevalence of (MHSU) disorders among Native American women of reproductive age (WRA).

METHODS

We applied a novel algorithm to identify inpatient hospitalizations primarily for mental and substance use (MHSU) among American Indian women of reproductive age (15-44 years) from 2011-2015. The algorithm classifies hospitalizations as MHSU based on diagnosis-related group codes, ICD-9-CM diagnosis codes, and procedure codes.

RESULTS

A total of 6,994 hospitalizations among Native American WRA were identified, with 1,463 primarily for MHSU. Following delivery hospitalization, MHSU was the second leading cause of hospitalization (rate=243.5/10,000) for Native American WRA. The majority (65.6%) of MHSU hospitalizations were primarily for mental health rather than substance use (n=960), with 52% (n=767) of all MHSU hospitalizations identified with a co-occurring MHSU condition. For substance-related hospitalizations alone, 49% had a co-occurring MHSU condition. Compared to White WRA, the rate of MHSU was nearly two times higher among Native American WRA (RR=1.8). .

CONCLUSIONS

We observed high rates of MHSU hospitalization among Native American WRA in Wisconsin, suggesting that this population may be vulnerable to adverse mental health and substance use outcomes, including substance dependence and negative pregnancy outcomes. These data can inform public health prevention efforts focusing on comprehensive care for WRA, including integration of family planning, mental health, and substance-related services.

KRISTIN L MOORE, MPH

Public Health - Seattle & King County

Kristin Moore, MPH is an epidemiologist with the Assessment, Policy Development & Evaluation Unit of Public Health - Seattle & King County. With nine years of experience in epidemiology and evaluation, she utilizes principles of social epidemiology and community-based participatory research to achieve equity in root causes of health. She has led several evaluations, including a county-wide, mixed-methods evaluation of physical education in public schools and a baseline survey about the health and well-being of farmworkers. Findings from these evaluations were utilized by local and state policymakers, as well as communities, to improve policies and systems. Currently, she is a part of the Best Starts for Kids evaluation team where she leads evaluation of the school partnership strategies.

#8148 Does Taking an Equity-Based Approach to Population-Based Surveys Improve Representativeness? Results from the Best Starts for Kids Health Survey, King County, WA **

SESSION	Cross Cutting - Identifying Health Disparities
PRESENTATION	JUNE 6 - 11:06 AM

⭐ ABSTRACT

BACKGROUND

Data from population-based surveys play a critical role in informing programs, interventions, and policies to improve public health and health equity. However, white non-Hispanic and higher-income individuals are often over represented in these surveys, leading to gaps in knowledge about the health and opportunities to improve health of other critical populations. The Best Starts for Kids Health Survey (BSKHS) is a population-based survey about the health and well-being of families and children 5th grade and younger in King County, WA. With the goal of achieving a truly representative sample, BSKHS took unique equity-based approaches throughout the survey. This presentation will describe the success of these approaches and will discuss implications and lessons learned for future population-based surveys.

METHODS

The equity-based approaches in BSKHS included oversampling by race/ethnicity and geography; offering the survey, announcement letters, and other materials in six languages (Chinese, English, Russian, Somali, Spanish, and Vietnamese); conducting community outreach prior to and during data collection; conducting text message-based recruitment in addition to phone call recruitment; preferentially calling predicted families of color or families speaking a language other than English; and including a community-based convenience sample to augment the sample size of small populations (e.g., families in specific racial/ethnic subgroups, who are LGBTQ, or who are unstably housed). For further discussion of BSKHS methods, see Wong et al., (CSTE abstract submitted).

RESULTS

Data collection was 80% complete at the time this abstract was submitted. To date, children of color represent 55% of BSKHS participants. In 2015, 52% of children 0 to 9 years in King County were children of color. To provide a comparison, 16% of the 2015 Behavioral Risk Factor Surveillance System respondents in King County were people of color, less than half of the expected 37% needed to be representative of King County overall. Eleven percent (11%) of surveys have been taken in a language other than English. In King County in 2015, 10% of the population 5 years and older spoke a language other than English and spoke English less than very well. Qualitative findings also suggest that non-English speaking families participated because interviewers were not only bilingual but also bicultural.

CONCLUSIONS

Preliminary data suggest that the equity-based approaches of BSKHS attained a more representative sample than did previous population-based surveys in King County.

NATE WRIGHT, MPH

CDC/CSTE Applied Epidemiology Fellowship Program

Nate Wright works at the Minnesota Department of Health in the Injury and Violence Prevention Section as part of the Applied Epidemiology Fellowship Program administered by the Council of State and Territorial Epidemiologists (CSTE) and funded through the Substance Abuse and Mental Health Services Administration (SAMHSA). His work primarily focuses on suicide and drug overdose, but those topics encompass and overlap considerably with other related public health projects he participates in. Recently, he has worked collaboratively with Minnesota's American Indian community to address the serious concern of drug overdose and identify potential misclassification of unintentional drug overdose deaths.

#8415 Expanding the Scope of the NVDRS – American Indian Unintentional Drug Overdose Deaths **

SESSION	Substance Abuse - Mixed Gems: Topics in Behavioral Health Surveillance
PRESENTATION	JUNE 5 - 11:42 AM

⭐ ABSTRACT

BACKGROUND

Drug overdose deaths have risen to epidemic levels in the U.S. In 2015, the drug overdose mortality rate in Minnesota was 10.6 per 100,000 population: the sixth lowest rate in the U.S. However, in Minnesota, there are significant disparities in drug overdose mortality rates, particularly among American Indians (AI). To provide more detailed information regarding the risk factors and circumstances of drug overdose deaths in AI, the decision was made to include 2015 AI drug overdose deaths within the Minnesota Violent Death Reporting System (MNVDRS).

METHODS

Death certificates were used to identify unintentional AI drug overdose deaths with an ICD-10 underlying cause of death of X40-X44. These death certificates were then imported into MNVDRS. Data were abstracted from medical examiner records, law enforcement reports, and medical records to provide information regarding the risk factors, circumstances, and precipitating events that occurred before an unintentional drug overdose. These data were then analyzed and summarized.

RESULTS

In 2015, 41 drug overdose deaths in AI were identified; 39 were classified as unintentional; all were abstracted into the MNVDRS. Among AI, heroin was the most frequent drug cited in overdose deaths (44% among AI vs. 20% of all drug overdose deaths statewide). Toxicology results provided detailed descriptions of substances found, with a majority of decedents of all populations having more than one positive drug test. The median age of death among AI was 34.5 years, and younger than the overall median age of 44 years (p=0.0002). A number of the AI unintentional poisoning deaths were notable with regards to the manner of death, as the risk factors and circumstances resembled suicides.

CONCLUSIONS

Drug overdose deaths among AI occur at more than four times the rate of the overall population in Minnesota; decedents are younger, and have a higher prevalence of heroin, as well as other substances. Because of the findings and community concerns of an underreporting of suicide in AI, we created a suicide probability index based on the presence of the suicide risk factors of prior suicide ideation, attempt(s), and evidence of undiagnosed depression. This index will be used to enable a better understanding of these deaths and inform prevention measures.