CSTE AWARD IN ADDRESSING RACIAL AND ETHNIC DISPARITIES

This is the sixth annual presentation of the "Robert Wood Johnson Foundation 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 600 abstracts submitted for participation in the CSTE Annual Conference. In total, 13 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:

- Impact of work to the field of eliminating health disparities
- Contribution/Translation to Practice
- Policy Implications for evoking long term change in eliminating and preventing health disparities
- Quality of poster or breakout session presentation

CSTE will present one of the finalists a plaque to commemorate this sixth annual award together with an honorarium valued at $1,000. The award will be presented on Tuesday, June 11th at the President’s banquet.

Presentations are indicated on the program agenda with an asterisk (*)

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 abstracts submitted to the CSTE Annual Conference Planning Committee and participate in a discussion about this process. If you are interested in participating on this committee, please contact the CSTE national office. The 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 and a former CSTE Executive Board member.

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James L. Hadler, MD, MPH is a senior epidemiologist with the Connecticut Emerging Infections Program, a consultant to the NYC Department of health and a former CSTE Executive Board Member.

Corrine Miller, Ph.D., DDS, is State Epidemiologist with the Michigan Department of Community Health.

Elizabeth L. Lewis-Michl, Ph.D., is Chief of the Community Exposures Research Section in the Bureau of Environmental and Occupational Epidemiology at the New York State Department of Health.

Marjorie Shannon, MS, is State Epidemiologist for Delaware. During her years in the private sector she worked chiefly in pharmaco-epidemiology and health services research, her work in Delaware includes development of methods by which to assess racial, ethnic and other disparities across a variety of diseases / conditions.
PATRICIA MCKANE, DVM, MPH  
Michigan Department of Community Health

Patricia McKane is the Senior MCH Epidemiologist with the Michigan Department of Community Health. She is the Primary Investigator for the Michigan State’s Monitoring Assisted Reproductive Technologies collaborative, the coordinator for the States System Development Initiative Grant and the epidemiologist for Title X Family Planning Program. She works collaboratively with MCH program staff to use applied epidemiology to inform programs, policymakers and stakeholders about the health status of Michigan women and children and the impact of MCH programs. She has a BS in Microbiology and a DVM from Michigan State University and a MPH from the University of Minnesota.

#1835 - Decomposition of Infant Mortality Rates by Race/Ethnicity at the County Level: Informing Home Visiting Outreach to High Risk Populations

**Session:** Chronic Disease / MCH / Oral Health I - Using Local Data to Examine Health Disparities

**Presentation:** June 10 - 4:30 PM

**ABSTRACT**

**BACKGROUND:**
Michigan’s infant mortality rate (IMR) (2009: 7.5/1,000 live births) remains higher than the national rate (2009 provisional: 6.3/1,000). Significant racial disparities [Black/White (B/W) rate ratio = 3] persist after adjustment for maternal education, insurance type, smoking and pre-natal care. Statewide IMR could be reduced by an estimated 30.4%, if the B/W disparity was eliminated. Even with a legal mandate to reduce disparities and efforts to improve outreach into at-risk communities based on location, racial disparities remain unacceptably high. Nine Michigan counties account for more than 80% of Black infant mortality and a home visiting program serving low-income, first time mothers is one strategy to reduce infant mortality in high risk communities. To maximize efficiency of limited resources and identify women at highest risk, we used decomposition to develop risk-based, county-specific identification of the excess death rates. Outreach is expected to focus on reaching these women as part of subsequent program enrollment.

**METHODS:**
Decomposition addresses the additive contributions of differences in rates and distribution by strata in two populations to the differences in their overall rates. The Kitagawa formula was used to calculate the excess risk percent of IMR by race/ethnicity for each of the nine high risk counties. Data from the 2007-2009 Michigan

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Resident Live Birth/Infant death linked file were used. Infants born to women > 20 years old and > 13 years of education in 2007-2009 were the reference population.

Risk profiles for each county were calculated by adjusting the excess mortality rate for each race/ethnicity to eliminate negative risk, then calculating the percent of the total risk for each racial/ethnic group.

RESULTS:
Compared to the standard population, excess risk of mortality was highest for Black infants (56.5% to 132.8%) in 7 of 9 counties, for Hispanic infants (86.6%) and White infants (48.2%) in one county each. The largest racial disparity in excess mortality within one county was -84.4% in White and 123.1% in Black infants.

CONCLUSIONS:
Data analysis, developed uniquely for each county, reflected the excess risk rate of infant mortality, taking into account the difference in race/ethnicity within each county compared to the standard population. Results were shared with local health departments to encourage outreach to underserved communities.

Although some resistance to change has been encountered, risk-based analysis continues to guide program outreach.
SHOSHANNA NAKELSKY, MPH  
Los Angeles County Department of Public Health  

Shoshanna Nakelsky, MPH, is an Epidemiologist in the Division of HIV and STD Programs at the Los Angeles County Department of Public Health. Since 2006, she has served as the Project Coordinator and Data Manager for HIV Incidence Surveillance, a CDC-funded surveillance project. She and her team have implemented a system to estimate the number of new HIV infections in Los Angeles County. She routinely analyzes surveillance data to identify disparities in HIV testing behaviors and HIV incidence among groups at high risk of HIV infection. Shoshanna’s research interests include identifying behavioral and socioeconomic factors that influence health decisions.

#1990 - The Impact of Age and Race on New HIV Infections Among Men Who Have Sex With Men (MSM) in Los Angeles County (LAC), 2008-2010

**Session:** Infectious Disease II - HIV Epidemiology: 26 Years and Still Counting

**Presentation:** June 10 - 3:00 PM

**PRESENTER:**  
Shoshanna D Nakelsky  
snakelsky@ph.lacounty.gov  
Los Angeles County Department of Public Health

**ABSTRACT**

**BACKGROUND:**  
Compared with the national HIV epidemic, a greater proportion of HIV diagnoses in Los Angeles County (LAC) occur in MSM, including MSM who use injection drugs (MSM/IDU) (55% vs. 85%, respectively). Recent national HIV incidence estimates showed that Black MSM ages 13-29 years were most at risk of acquiring new HIV infections. We estimated HIV incidence by age and racial/ethnic groups to better understand the role of age in the risk of HIV infection for White, Black and Latino MSM in LAC.

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METHODS:
We used data from the HIV Incidence Surveillance system in LAC to estimate the number of new HIV infections among MSM, including MSM/IDU, during 2008-2010. HIV Incidence Surveillance relies on the Serologic Testing Algorithm for Recent HIV Seroconversion (STARHS) methodology, which uses the BED HIV-1 capture enzyme immunoassay, to identify recent HIV infections by testing remnant diagnostic serum. This population-based incidence method uses HIV testing data from newly diagnosed cases and imputes testing history and BED results for persons who are unaware of infection. The proportion of MSM in LAC was estimated to be 8.2% of the male population (Lieb, 2011). This percentage was applied to California State Department of Finance population estimates.

RESULTS:
We estimate that 3,247 MSM ages 18-39 years were infected with HIV (27% were Black, 47% Latino and 20% White). In comparison, the percentage of 18-39-year-old MSM residents in LAC were 8%, 24%, and 52%, respectively, by race/ethnicity. Across all age groups, the proportion of new infections among Black MSM exceeded their distribution in the population (Table 1). Notably, we estimate 9% of new infections were among 18-24-year-old Black MSM while they compose only 3% of 18-24-year-old MSM residents in LAC.

CONCLUSIONS:
While it is common practice to present HIV surveillance data in broad age categories, this analysis demonstrates that providing data in more narrow age groups presents a clearer picture of those most at risk for new HIV infections. Comparing proportions of Black MSM residents in LAC to those estimated to have become HIV infected, Black MSM were disproportionately impacted by new HIV infection. This finding was especially evident among the 18-24 year olds where the proportion of HIV-infected Black MSM exceeded their proportion in the LAC population compared with White and Latino MSM. While this racial/ethnic disparity decreased with age, Black MSM remained the most heavily impacted across all ages between 18 and 39 years.
ROWENA SAMALA, MPH
District of Columbia Department of Health

Rowena Samala holds a master of public health degree in epidemiology from the George Washington University School of Public Health and Health Services, which she completed in 2007. Ms. Samala has extensive experience in data management and analysis of surveillance systems. In 2008, Ms. Samala began her work at the District of Columbia Department of Health (DC DOH) where she used surveillance data to identify and monitor racial and ethnic disparities among persons living with HIV in the District. Between 2008 and 2011, Ms. Samala provided technical and epidemiologic expertise to the DC DOH HIV/AIDS, Hepatitis, STD, and TB Administration. She currently serves as a statistician within the DC DOH Center for Policy, Planning, and Evaluation where her research focuses on disparities in infant mortality and leading causes of death for District residents.

#2151 - Does a Hispanic Health Advantage Exist in DC?

Session: Cross Cutting I - More Views of Health Disparities

Presentation: June 12 - 10:50 AM

ABSTRACT

BACKGROUND:
Popularly known as the “Hispanic Paradox”, this phenomenon of healthier outcomes and longevity among Latinos despite a disproportionate burden of poverty, limited health insurance and low education has been the subject of extensive research and in recent years, substantiated by national estimates of life expectancy by Hispanic origin. Consistent with the changing racial and ethnic composition of the US, the District of Columbia is now home to 21.8 percent more Hispanic residents, the third fastest-growing group from 2000 to 2010. This study sheds light on key health indicators of the Hispanic population against their black and white counterparts in DC.

METHODS:
Life expectancy at birth was calculated for Hispanic, non-Hispanic black, and non-Hispanic white DC residents by constructing single year life tables (Chiang method). Infant mortality and age-adjusted mortality rates were computed for each sub-group. Disparity ratios (DR) between minority groups were computed for selected chronic conditions and risk factors. Data sources include DC Vital Statistics, Census 2010, and the Behavioral Risk Factor Surveillance System (BRFSS). Analyses were performed using SAS version 9.3 and Microsoft Excel.

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RESULTS:
Hispanic females were expected to live the longest in the District (88.9 years), followed closely by Hispanic males (88.4 years), non-Hispanic white females (85.2 years), and non-Hispanic white males (83.2 years). The largest differential is between Hispanics and non-Hispanic blacks, the former having an advantage of 19.6 years in men and 12.7 years in women. Infant mortality was significantly lower in Hispanics (3.7 deaths per 1,000 births) compared to their non-Hispanic black and white counterparts (10.5 and 5.3 deaths per 1,000 births, respectively). The Hispanic age-adjusted mortality rate (410.8 per 100,000) was lower than non-Hispanic whites (558.0 per 100,000) and more than doubled by non-Hispanic blacks (1,086.4 per 100,000). BRFSS data revealed a greater likelihood of being diagnosed with diabetes, asthma, stroke, and heart disease (DR: 2.4, 2.2, 2.3, and 1.9, respectively) among non-Hispanic blacks compared to Hispanics. Non-Hispanic blacks were also more likely to be obese and current smokers than Hispanics (DR: 2.9 and 1.3, respectively).

CONCLUSIONS:
The Hispanic health advantage observed in DC may be a product of unique health practices and lifestyle behaviors that should be studied, preserved, and perhaps incorporated into the rest of the population mix. Factors such as return migration, ethnic heterogeneity, and Hispanic origin misclassification in reporting systems must be further examined to validate these findings.
LAURA TOMEDI, PHD, MPH
CDC/CSTE Applied Epidemiology Fellow at the New Mexico Department of Health.

Dr. Tomedi has worked in the fields of substance abuse, harm reduction, maternal and child health, nutrition, obesity, and chronic disease and is particularly interested in health inequities and epidemiology methods. She is currently a CDC/CSTE Applied Epidemiology Fellow in the Chronic Disease Prevention & Control Bureau at the New Mexico Department of Health.

#1961 - Evaluating Misclassification in Surrogate Methods for Assigning Hispanic/Latino Survey Respondents to a Racial/Ethnic Category, 2011 New Mexico Behavioral Risk Factor Surveillance System (NMBRFSS)

Session: Cross Cutting - Poster Award Finalists

Presentation: June 10 - 8:00 AM
Board #214

ABSTRACT

BACKGROUND:
Per federal guidelines, the NMBRFSS collects Hispanic ethnicity separately from race. However, the two are often combined into a single variable for reporting on health disparities. While self-identified assignment would be preferred, Hispanics have not had the opportunity to indicate whether ethnicity or race best describes them. As a surrogate approach, New Mexico has used a “smallest group” method that assigns respondents to the ethnic or racial group that comprises a smaller percentage of the population. To assess how accurately this approach and another method compare to self-identification, an additional question was piloted allowing Hispanic respondents to identify their preference for racial/ethnic assignment.

METHODS:
Following standard ethnicity and race survey questions, all 2011 NMBRFSS respondents who reported Hispanic ethnicity and at least one race were also asked “Which one of these groups would you say best describes you?” Respondents could select a single response from a list that included Hispanic or Latino, all standard racial categories, or “other”. Using self-identification as the gold standard for validity, comparisons were made to assignments using the “smallest group” method and an alternate “aggregate Hispanic” method (assigning all Hispanic respondents to a racial/ethnic designation of “Hispanic” regardless of racial identity). We assessed the effect of these different assignment methods on estimates of general health status, smoking, and obesity.

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RESULTS:
2,429 respondents qualified for the additional preferred race/ethnicity question. Compared to self-identification, the "aggregate Hispanic" method correctly assigned more of the 162 Hispanic/American Indian respondents than the "smallest group" method (69% vs. 28%, respectively). 85% of 2,211 Hispanic/White respondents were correctly assigned with both methods. Among Hispanic/White and Hispanic/American Indian respondents, estimates of general health and obesity did not vary substantially based on method of racial/ethnic assignment. Hispanic/American Indian respondents were more likely to report being current smokers than Hispanic/White only or American Indian only respondents. Therefore, "aggregate Hispanic" assignment underestimated and "smallest group" assignment overestimated the percent of American Indians who reported being smokers. Very small numbers for other racial/ethnic combinations prohibited precise estimates.

CONCLUSIONS:
One year of pilot data suggests that neither surrogate method for assigning Hispanic NMBRFSS respondents to a single racial/ethnic category appears to consistently reflect self-identified preferences. Both methods can lead to biased estimates of important health indicators, such as smoking prevalence among American Indian adults. In the absence of self-identified preference, the "aggregate Hispanic" method appears more accurate for assigning race and ethnicity than the "smallest group" method.
YING ZHANG, PHD, MPH,
Nebraska Department of Health and Human Services

Dr. Ying Zhang had been the manager of Nebraska Crash Outcome Data Evaluation System (NECODES) since 2008. Her research interests include injury and chronic disease epidemiology, social determinants of health, and public health data linkage and its application in health promotion. In the last five years, Ying has published various technical reports, fact sheets, and journal articles with her peer epidemiologists and researchers in Nebraska. She has also presented her work at national and local conferences. Ying holds her PhD in health education from the University of Nebraska – Lincoln and MPH from Johns Hopkins Bloomberg School of Public Health.

#2044 - Assessing Hospital Based Burden for Nonfatal Motor Vehicle Crash Injuries by Race

Session: Injury - The Scope of Motor Vehicle Related Injuries and Deaths

Presentation: June 10 - 4:30 PM

ABSTRACT

BACKGROUND:
Persistent disparities in motor vehicle crash (MVC) injuries are a major public health challenge. Almost all previous studies have been focusing on fatal injuries, partly because of data availability from the Fatality Analysis Reporting System (FARS). The lack of race information for non-fatal motor vehicle crash injuries in the United States has limited the understanding of racial disparities in motor vehicle crashes (MVCs). In this study, we described a pilot surveillance project in Nebraska that linked crash, drivers’ license, and hospital discharge data to investigate racial disparity among hospitalized non-fatal MVC injuries.

METHODS:
Five years (2006-2010) of Nebraska motor vehicle crash data, drivers’ license data, and hospital discharge data were linked for this study. Only drivers’ records were included in the analysis, since licensed drivers were used as at-risk population. Drivers age, gender, residence location were obtained from drivers’ license data that was linked to crash data. Injury severity was assessed on the Maximum Abbreviated Injury Scale (MAIS). A log rate model was used to examine the likelihood of severe and non-severe MVC injuries by drivers’ race along the dimensions of age, sex and place of residence.

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RESULTS
From 2006 to 2010, there were 1,145 Nebraskan drivers severely injured, and 18,216 non-severely injured in MVCs who were found in the hospitals discharge data. With the exception of the youngest (15-24) and oldest (65+) age groups for whites, black drivers had highest severe injury rates among the three race groups. They also had highest non-severe injury rates across all age groups. The gaps between black drivers and their two other counterparts were wider for the non-severely injured than for the severely injured. In the log rate model predicting severe injuries, only the interaction between race and residence location was significant; while in the model predicting non-severe injuries, race has significant interaction with age, gender, and residence location.

CONCLUSIONS:
In the absence of survey data, regular injury surveillance data (crash and hospital discharge data in this case) in combination with driver’s license data provide an alternative and viable solution for MVC disparity surveillance. Based on limited demographic information, we found racial disparities in severe and non-severe MVC injuries: Nebraska black drivers tended to be at higher risk, especially in metropolitan areas.