ASHLEY BORIN

Multnomah County Health Department

Ashley Borin is a CDC/CSTE Applied Epidemiology Fellow at Multnomah County Health Department in Portland, Oregon. Her work focuses primarily on Maternal, Child and Family Health. Ashley relocated to Oregon after completing her MPH in Epidemiology and International Health from the University of Michigan. Prior to that, Ashley obtained a BS in Nutritional Sciences from Michigan State University. In her short public health career, Ashley has gained international and domestic experience through conducting epidemiological research abroad in Tanzania and China and through her work involving Influenza vaccine effectiveness and pediatric diabetes in Michigan.

Abstract ID	1326779
Date/Time	June 4, 2:00 PM - 2:30 PM
Room	206
Session Title	Chronic Disease / MCH / Oral Health I - Health Disparities from Coast to Coast
Title of Presentation	*Racial disparities of self-reported postpartum depressive symptoms among foreign born women in Oregon*
Committee	Chronic Disease/Maternal and Child Health/Oral Health Sub-Committee
Topic	Maternal & child health epidemiology
Keywords	Depression | MCH Epidemiology | Health disparities

BACKGROUND

Postpartum depression (PPD), defined as depression up to one year after pregnancy, can have consequences for both a mother and child. Foreign born women may experience stress during the postpartum period due to feelings of isolation and adversity during acculturation. Foreign born woman may also experience difficulty discussing depressive symptoms with their provider. Stress has been linked to PPD, however, due to the 'healthy immigrant effect'; foreign born women may cope with stress differently. Our objectives are to estimate the prevalence of postpartum depressive symptoms (PDS), to investigate if racial disparities exist among foreign born women and to identify predictors of PDS. We hypothesize that foreign born women are more likely to report PDS than US-born women and that this relationship may differ by race/ethnicity.

METHODS

Responders to the Oregon Pregnancy Risk Assessment Monitoring System (PRAMS) from 2005-2007 were asked about PDS at 3 months postpartum, on average. We defined PDS when mothers reported that 1) she always or often felt down, depressed or hopeless and/or 2) she always or often had little interest or little pleasure in doing things after pregnancy. Navity was determined by country of birth listed on the birth certificate. We estimated adjusted odd ratios (AOR) for PDS using weighted multivariate logistic regression with SAS 9.2 survey procedures and tested for interaction by race/ethnicity.

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RESULTS

Overall, 11.8% of participants reported PDS. Non-white women were significantly more likely to report PDS compared to non-Hispanic (NH) Whites (OR=1.6, 95%CI: 1.3, 2.0). The prevalence of PDS among foreign born women was 13.3% compared to 11.3% among US born women. Foreign born women were not more likely to report PDS (OR=1.2, 95%CI: 1.0, 1.5). However, after controlling for confounders, foreign born Asian women were 2.3 times more likely to report PDS (95%CI: 1.1, 5.0) than US-born NH-Whites and 1.9 (95%CI: 1.1, 3.3) times more likely than US-born Asians. Interaction with nativity was not found among other racial or ethnic groups. In the adjusted model, poverty (OR=1.5, 95%CI: 1.1, 2.2), partner-related (OR=2.4, 95%CI: 1.8, 3.2) and traumatic stress (OR=1.5, 95%CI: 1.1, 2.1) were also associated with PDS.

CONCLUSIONS

Non-white women suffer from PDS disproportionately when compared to white women. Moveover, foreign born Asian women are at greater risk for depressive symptoms. Clinicians and public health professionals should provide culturally appropriate screening and treatment for high risk populations with depressive symptoms to improve the lives of mothers and children.

RWJF AWARD FINALIST

REBECCA COUGHLIN

Michigan Department of Community Health

Rebecca Coughlin is the epidemiologist for the Health Disparities Reduction and Minority Health Section (HDRMHS), and sits in the Bureau of Disease Control, Prevention, and Epidemiology at the Michigan Department of Community Health. HDRMHS is the Office of Minority Health for the state of Michigan, and works to provide a persistent focus on eliminating health inequities among Michigan's populations of color. Rebecca has an MPH in Epidemiology from the University of Michigan and did her master's project with the Inter-Tribal Council of Michigan. Before moving to Michigan Rebecca worked for John Snow, Inc., supporting projects in Romania and Ethiopia.

Abstract ID	1331561
Date/Time	June 4, 10:00 AM - 10:30 AM
Board Number	138
Title of Presentation	*Assessing the impact of using maternal race in vital birth records to measure racial and ethnic disparities in birth outcomes and maternal risk factors in Michigan*
Committee	Cross Cutting Sub-Committee
Topic	Health disparities: Racial/ethnic and socioeconomic, Best epidemiologic practices
Keywords	Health disparities | Minority Health | MCH Epidemiology

BACKGROUND

Birth records include data about a broad range of birth outcomes and maternal risk factors, and are thus a rich source for measuring racial/ethnic health disparities. Standard practice uses the mother's race/ethnicity as the race/ethnicity variable. This study examines the impact on disparities in birth outcomes and risk factors when the mother's race/ethnicity alone is used versus using a combined variable based on the mother's and father's race/ethnicity.

METHODS

Data from 2004-2009 Michigan birth records were used to construct seven race/ethnicity categories for the mother: Non-Hispanic White (W), Non-Hispanic African American (AA), Non-Hispanic Asian/Pacific Islander (API), Non-Hispanic American Indian/Alaska Native (AI/AN), Non-Hispanic Arab (Ar), Non-Hispanic Multiracial/Other (M/O), and Hispanic/Latino (H/L). Seven additional variables were constructed for each category listed above using the mother's and father's race/ethnicity. These variables were dichotomized as "mother and/or father in this category" vs. "neither mother or father in this category". Birth outcomes and maternal risk factors were examined for the seven categories separately using both classification methods. Disparities for each race/ethnicity were calculated separately and compared to identify how changing the measurement of race/ethnicity affected disparity measurement.

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RESULTS

Including the father's race increased the number of infants included in all race/ethnicity categories, ranging from an increase of 4% (W) to 64% (AI/AN). After including the father's race/ethnicity, the number of years of maternal education was significantly higher than the estimate using mother's race alone for Ar, M/O, and H/L; and significantly lower among W. Mother's age was significantly higher among Ar. Among AA, gestational age and birth weight were both significantly higher when using both mother and father's race than when using mother's race alone. When comparing disparities using the two different race/ethnicity classification methods, disparities tended to remain unchanged in size and statistical significance. However, the disparity between AI/AN and W for gestational age was statistically significant when including father's race and not significant when using mother's race alone.

CONCLUSIONS

Including the father's race/ethnicity to examine disparities changes the estimate of birth outcomes and related maternal risk factors. The impact varies among different populations but in all cases increases the sample size. For smaller populations this can result in increased precision of estimates, which in one case resulted in identifying a disparity that was not previously statistically significant. Including father's race/ethnicity may improve our ability to understand racial/ethnic disparities in birth outcomes and how these disparities can be eliminated. This is especially important for small populations.

RWJF AWARD FINALIST

JENINE DANKOVCHIK

Northwest Portland Area Indian Health Board

Jenine Dankovchik is currently a Biostatistician with Improving Data & Enhancing Access - Northwest (IDEA-NW). With a background in statistics, Jenine worked most recently with eight Northwest Tribes on the Northwest Tribal Cancer Navigator Program helping to implement the program and train Navigators. As the Navigator Program comes to close, Jenine led the analysis and compiled the results for the Tribes. Prior to joining NPAIHB, Jenine worked in Hawaii conducting research in a range of studies including an evaluation of a program providing nutrition and support services to Native Hawaiian Küpuna.

Abstract ID	1327707
Date/Time	June 6, 11:00 AM - 11:30 AM
Room	208
Session Title	Cross Cutting I - Improving Epidemiologic Data Related to Tribal and other Racial/Ethnic Disparities
Title of Presentation	*Racial misclassification and disparities in mortality among American Indians/Alaska Natives and other races, Washington*
Committee	Cross Cutting Sub-Committee
Topic	Tribal epidemiology
Keywords	American Indians | Health disparities | Data/Surveillance

BACKGROUND

Compared with the general population, American Indians and Alaska Natives (AI/ANs) experience excess mortality from a variety of causes including injuries. Mortality surveillance efforts may be hampered when AI/ANs are miscoded as another race on death certificates. To update knowledge of patterns in AI/AN leading causes of death and rates of mortality, we examined race-corrected information from 30 recent years of Washington State death certificate data.

METHODS

We corrected race coding in Washington death certificate data for the period from 1980 to 2009 using probabilistic record linkage to a large demographic data file of much of Washington's urban and tribal AI/AN population, which was derived from patient enrollment records of the Indian Health Service and a large urban Indian health organization. Using linkage-corrected race data, we calculated leading causes of death and age-adjusted mortality rates.

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RESULTS

Record linkage increased case ascertainment of AI/AN deaths by 10.2% (from 14,426 pre-linkage to 15,904 post-linkage); among matched records for which a race had been coded, 83% were classified correctly as AI/AN in the state data system. While the leading causes of death were similar between AI/ANs and whites, mortality from all causes occurred at younger ages among AI/ANs (mean age at death=56) than among whites (mean age at death=73). From 1990 to 2009, age-adjusted rates of unintentional injury death per 100,000 were twice as high among AI/ANs as whites. Most of the disparity in unintentional injury rates can be attributed to higher rates of death from motor vehicle accidents (MVA) and unintentional drug overdoses. For AI/ANs the MVA mortality rate was 31.1 (95% CI, 27.8 to 34.9) compared with 10.0 (95% CI, 9.8 to 10.3) for whites, and the unintentional drug overdose mortality rate was 22.0 (95% CI, 19.5 to 25.1) for AI/ANs compared with 9.2 (95% CI, 9.0 to 9.5) for whites. AI/ANs were also disproportionately affected by intentional injuries, with higher rates of both suicide (17. 8 for AI/ANs vs. 13.1 for whites, difference statistically significant) and homicide (9.4 for AI/ANs vs. 2.3 for whites, difference statistically significant).

CONCLUSIONS

Correct racial classification is a critical factor in achieving accurate surveillance of mortality. Record linkages using Indian health data can increase case ascertainment of AI/AN deaths and highlight important disparities, including deaths from injuries. These data may help target interventions and inform public health policy for and by AI/AN populations.

RWJF AWARD FINALIST

JAMIE S. KIM

Kansas Department of Health and Environment

Jamie Kim began her public health career in 1995 as an infectious disease epidemiologist at the Kansas Department of Health and Environment (KDHE). Since 2003, she has served as a maternal and child health epidemiologist at KDHE. Her priority assignments involve pregnant women, infants, children, adolescents, and Pediatric and Pregnancy Nutrition Surveillance Systems. She earned a Master of Public Health (in association with the University of Kansas) and BS in Chemistry from Wichita State University. She would like to acknowledge her co-authors at CityMatCH, Carol Gilbert, MS and Laurin Kasehagen, MA, PhD for their wonderful and nurturing mentorship.

Abstract ID	1314985
Date/Time	June 5, 11:00 AM - 11:30 AM
Room	207
Session Title	Chronic Disease / MCH / Oral Health II - Using Perinatal Periods of Risk Approach to Assess Infant Mortality
Title of Presentation	*Perinatal Periods of Risk (PPOR) approach to better understand fetal-infant mortality: A state-level analysis in Kansas, 2005-2009*
Committee	Chronic Disease/Maternal and Child Health/Oral Health Sub-Committee
Topic	Maternal & child health epidemiology
Keywords	Maternal and Child Health | Infant mortality | Birth outcomes

BACKGROUND

Kansas' infant mortality rate (IMR) has been persistently higher than the national rate. In recent years, Kansas' IMR has stagnated while the national rate has declined. Furthermore, while many states have made progress closing the mortality gap between non-Hispanic black and non-Hispanic white infants, Kansas has not.

METHODS

Fetal death and linked birth-infant death certificate files (2005-2009) were compiled and analyzed using the Perinatal Periods of Risk approach to gain greater insight into the underlying factors contributing to Kansas' fetal and infant deaths.

RESULTS

When compared to a national reference group, 42.4% of Kansas' excess fetal-infant mortality was in the post-neonatal period among infants ≥1500g.The excess mortality rate for non-Hispanic blacks (10.7) was 4.7 times greater than non-Hispanic whites (2.3). Among non-Hispanic white and Hispanic mothers excess mortality was attributable to risks relating to infant health and injury/safety. For non-Hispanic black mothers, the excess fetal-infant mortality was attributable to maternal health and prematurity. Further analysis showed that 91% of the non-Hispanic black mortality in very low birth weight births was attributable to birthweight distribution. Only 9% of the non-Hispanic black VLBW disparity was due to birthweight-specific mortality.

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CONCLUSIONS

Causes of excess fetal-infant death and consequent opportunities for intervention vary according to the mother's race/ethnicity. To significantly impact Kansas' overall IMR, community-specific, tailored prevention efforts on prematurity, safe sleep, and injury prevention may be necessary. Complex factors necessitate a multi-pronged approach to reduce Kansas' overall IMR and collaborative efforts of community members, public health, and the medical community.

RWJF AWARD FINALIST

VANESSA SHORT

Mississippi State Department of Health

Vanessa Short is a Senior Epidemiologist at the Mississippi State Department of Health where she directs the Mississippi Delta Cardiovascular Health Examination Survey (Delta CHES). Dr. Short received her MPH in Behavioral and Community Health Sciences and her PhD in Epidemiology, with an emphasis on reproductive, perinatal and pediatric epidemiology, from the University of Pittsburgh Graduate School of Public Health. Prior to moving to Mississippi, she was a Maternal and Child Health CDC/CSTE Applied Epidemiology Fellow at the Pennsylvania Department of Health.

Abstract ID	1331850
Date/Time	June 4, 10:00 AM - 10:30 AM
Board Number	126
Title of Presentation	*Racial and socioeconomic disparities in health conditions, behaviors and risk factors related to cardiovascular disease among Mississippi Delta adults*
Committee	Chronic Disease/Maternal and Child Health/Oral Health Sub-Committee
Topic	Examining social determinants of health and health disparities in CD/MCH/OrH
Keywords	Cardiovascular disease | Health disparities

BACKGROUND

The 18-county Mississippi Delta is one of the most disadvantaged regions in the U.S., with more than one-third of the population living in poverty. Rates of cardiovascular disease (CVD)-related deaths in the Delta are among the highest in the nation. Moreover, the burden of CVD is disproportionately distributed across the population; CVD death rates are 1.4 times higher for blacks than whites. While national studies have shown that socioeconomic status (SES) underlies a portion of the higher rate of CVD in minorities, little is known about how SES influences cardiovascular health in the Delta. Therefore, we examined racial and socioeconomic disparities in CVD-related health conditions and risk factors in the Delta.

METHODS

We analyzed 2007-2010 MS Behavioral Risk Factor Surveillance System data from 3,519 blacks and 4,236 whites aged > 18 years living in the Delta. Poverty level, based on household size and income, was used as a measure of SES. Respondents were assigned as having household incomes < 100%, 100-199%, 200-399%, or > 400% of the federal poverty level. Prevalence estimates and 95% confidence intervals (CIs) were calculated for health status, health care coverage, hypertension, high cholesterol, BMI, fruit/vegetable consumption, physical activity, smoking, alcohol use, and history of heart disease, stroke, and diabetes. Differences in variable distributions between blacks and whites were tested using Chi-square statistics. Among blacks, multivariate logistic regression models were used to examine differences by SES.

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RESULTS

Compared to whites, blacks were significantly more likely to report fair/poor health status (20.2% vs. 12.3%, p<0.0001), no health care coverage (30.5% vs. 15.1%, p<0.0001), hypertension (41.0% vs. 33.4%, p<0.0001), diabetes (14.9% vs. 9.3%, p<0.0001), overweight/obesity (72.5% vs. 64.1%, p<0.0001), and physical inactivity (36.6% vs. 30.5%, p=0.0002). Among blacks, there were strong and consistent trends of increasing prevalence of health conditions and risk factors with decreasing SES. Those with the lowest SES were significantly more likely to report fair/poor health status (AOR 5.4, 95% CI 3.1-9.6), no health care coverage (AOR 7.2, 95% CI 3.6-4.5), hypertension (AOR 1.9, 95% CI 1.2-3.1), heart disease (AOR 4.2, 95% CI 1.6-11.1), stroke (AOR 2.7, 95% CI 1.3-5.5), diabetes (AOR 2.9, 95% CI 1.8-4.5), physically inactivity (AOR 2.7, 95% CI 1.8-4.1) and smoking (AOR 3.7, 95% CI 2.1-6.6) compared to those with the highest SES.

CONCLUSIONS

There are significant racial and socioeconomic disparities in CVD-related health conditions and risk factors in the MS Delta. Focusing public health efforts on lower-SES groups may help to reduce such disparities.

OUTSTANDING POSTER PRESENTATION AWARDS

Poster presentations are an important and valued part of the CSTE Annual Conference. CSTE will recognize the work of poster presenters by offering up to six awards, one for each Steering Committee. CSTE will identify up to 30 finalists from the submitted abstracts and award an individual plaque commemorating the award in each Steering Committee annually during the Wednesday morning Plenary Session.

Nomination and Selection Process

Only abstracts submitted and accepted for poster presentation at the CSTE Annual Conference will be eligible. Planning Committee members or members of their Steering Committee may nominate an eligible abstract for consideration to the Review Committee. A Review Committee of CSTE Members and Staff will review and select the finalists by April 1.

Criteria for Nomination

- Scientific content, including originality, study design and analysis;
- Public health impact; and
- Effective and innovative application of epidemiologic methods in an investigation or study.

Poster Finalists

Of those abstracts that met the criteria, up to five finalists in each area may be chosen by the Review Committee for each Steering Committee. To recognize each finalist, their abstract is published in the program, identified with a finalists ribbon on their board, and displayed the entire time from Sunday through Tuesday. The Review Committee will view finalists during the conference using a score sheet based on the above mentioned criteria.

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POSTER PRESENTER

NAOMI ANDERSON

Washington State Department of Labor and Industries

Abstract ID	1326678
Date/Time	June 5, 10:00 AM
Board Number	124
Title of Presentation	*Distribution of Influenza Like Illness (ILI) by cccupation in Washington State, September 2009 – August 2010 **
Committee	Occupational Health Sub-Committee
Topic	Improving occupational health surveillance
Keywords	Occupational Health | Influenza surveillance | Surveillance

BACKGROUND

Influenza (the 'flu') is an infectious respiratory illness characterized by fever, cough, sore throat, runny nose, fatigue, and muscle aches. Flu virus transmission usually requires close proximity of an infected person to a healthy person, or contact from a contaminated surface introducing the virus into the respiratory passages of a healthy person. The impact of influenza epidemics on morbidity and mortality is considerable; and the epidemiology of pandemic influenza suggests that there will be greater impact on working age populations. Outside of health care, relatively little data are available to describe occupations where workers may be at potentially higher risk for influenza infection. Based on differences in the required level of contact between persons at work, we hypothesize that some occupations may be at increased risk for ILI. This study estimates the prevalence of influenza like illness (ILI) by occupation.

METHODS

Between September 2009 and August 2010 the Centers for Disease Control (CDC) included questions on ILI on the Behavioral Risk Factor Surveillance System (BRFSS). The case definition for ILI were those reporting a febrile illness within the last month accompanied by a cough and/or sore throat. Washington State included questions on their state BRFSS on occupation. Using these, descriptive statistics, ILI prevalence, and prevalence ratios by occupation were calculated.

RESULTS

There were 8,752 respondents on the WA BRFSS during that period that were currently employed in non-military occupations. The ILI prevalence for all respondents was 6.8%. In general, workers between the ages of 18-49 had a higher prevalence than those over 50 years of age, and females had higher prevalence than males. Compared to the reference group, prevalence ratios indicate lower risk of ILI in 'technicians, n.e.c.' and 'truck drivers'; and higher risk of ILI in 'janitors and cleaners' and 'secretaries'.

CONCLUSIONS

Some occupations appear to have higher prevalence of ILI than others, which may be partly explained by differing levels of social contact by occupation as well as differences in contact with contaminated surfaces. Given the serious impact of the flu on the working population, prevention efforts should take occupational exposures into account. Routine collection of occupation information in BRFSS and other surveillance instruments would help in identifying occupations at higher risk for ILI and targeting resources for prevention.

POSTER PRESENTER

AMANDA BAKER

El Paso County Public Health

Abstract ID	1326922
Date/Time	June 4, 3:30 PM
Board Number	118
Title of Presentation	*How raising rabies awareness impacted vaccination coverage among domestic pets, El Paso County, CO 2009-2011 **
Committee	Cross Cutting Sub-Committee
Topic	Translating epidemiologic data into public health actions
Keywords	Program evaluation | Rabies | Local epidemiology

BACKGROUND

Colorado has experienced a skunk rabies epidemic since 2009, including spillover infections into other species. Before 2009, the last rabid terrestrial animal in El Paso County (EPC) was a skunk in 1974. However, from 2009 to 2011 in EPC, 23 skunks, 3 foxes, 1 horse, and 1 mountain lion tested positive for skunk variant rabies. The sharp increase in skunk rabies prompted a public health campaign to raise awareness about rabies risk for domestic pets and promote pet vaccination. In early 2010, El Paso County Public Health (EPCPH) initiated a substantial campaign to educate pet owners using print, radio, and television media; veterinarian trainings; and low cost vaccination clinics. Our evaluation characterizes changes in rabies vaccination coverage among domestic pets potentially exposed to rabies prior to and after public education efforts.

METHODS

EPCPH intakes calls from citizens to evaluate animal bites and domestic pets potentially exposed to rabies. Phone logs from 2009-2011 were reviewed retrospectively to analyze vaccination status of pets involved in exposures to wildlife, including rabies reservoir species such as skunks. Pet rabies vaccination was classified as unvaccinated, expired vaccination, currently vaccinated, or unknown based on national recommendations. Changes in the percentage of pets in each vaccination category were compared to 2009 (baseline).

RESULTS

Analysis included 490 rabies-related inquiries to EPCPH between 2009 and 2011, of which 214 (44%) involved domestic pets potentially exposed to wildlife. From 2009-2011, the proportion of pets exposed to wildlife that had current rabies vaccination status increased significantly from 28.9% in 2009 to 55.9% in 2011 ($p<0.01$), representing a 93% improvement. Concurrently, there was a 48% decrease in unvaccinated pets, declining from 23.1% to 12.0% ($p=0.13$) in that time period. For reports received in 2011, 83% of exposed pets had at least one rabies vaccination (included pets with current and expired vaccination), as compared to only 46% of pets reported in 2009. Public Health was also more successful in obtaining vaccination records as pets with unknown status declined from 30.8% to 4.8%.

CONCLUSIONS

Following an intense public and veterinarian education campaign regarding rabies risk, there was a marked increase in pets with appropriate rabies vaccination that had been reported to EPCPH because of exposure to wildlife and rabies reservoir species. A substantial decrease in unvaccinated pets was also observed. Public Health efforts at raising rabies awareness appeared to impact behavior of pet owners in terms of keeping pets up-to-date on rabies vaccination.

POSTER PRESENTER

CELESTE BECK

Utah Department of Health

Abstract ID	1324466
Date/Time	June 4, 3:30 PM
Board Number	113
Title of Presentation	*Access to care and its impact on health outcomes among Utah's adult asthmatic population **
Committee	Chronic Disease/Maternal and Child Health/Oral Health Sub-Committee
Topic	Examining social determinants of health and health disparities in CD/MCH/OrH
Keywords	Asthma | Barriers to care | Health insurance

BACKGROUND

In Utah, 8.9% of adults with asthma are currently without health insurance. An even higher percentage (12.5%) experienced a gap in health insurance coverage during the past year. This study was conducted to examine the relationship between gaps in health insurance coverage and access to asthma care, and to assess the impact on asthma outcomes including asthma attacks and emergency department visits.

METHODS

Questions regarding health insurance coverage, barriers to care, asthma attacks, and emergency department visits were analyzed using years 2007-2010 of the Behavioral Risk Factor Surveillance System Adult Asthma Call-back Survey. Analyses included the calculation of simple frequencies and chi-square tests of association, to examine the relationship between health insurance gaps and experiencing cost barriers to care. Logistic regression models were used to assess the odds of an asthma attack or emergency department visit for asthma, based on experiencing cost barriers to care.

RESULTS

Nearly half of asthmatic adults who experienced a gap in health insurance during the past 12 months said they were unable to see their primary care doctor or buy asthma medications when needed (41.1% and 43.0%, respectively), compared to less than 10% of those who were continuously insured. Chi-square tests of association between health insurance gaps and cost barriers to asthma care were significant ($p<.0001$). Adults with asthma who were unable to buy asthma medications when needed were nearly three times as likely to report an asthma attack during the past 12 months, compared to adults who did not experience a cost barrier to buying medications (OR 2.9 (CI 1.7-4.8). The inability to see a primary care physician or an asthma specialist when needed were also associated with experiencing an asthma attack (ORs 2.3 (CI 1.2-4.4) and 2.5 (CI 1.1-5.8), respectively). After adjusting for personal characteristics, cost barriers to care were not associated with increased likelihood of emergency department visits for asthma.

CONCLUSIONS

Lack of health insurance is closely tied to experiencing cost barriers to asthma care. Inability to receive care when needed, particularly the inability to buy asthma medications, appears to increase the likelihood of experiencing an asthma attack.

POSTER PRESENTER

ASHLEY BORIN

Multnomah County Health Department

Abstract ID	1319890
Date/Time	June 4, 10:00 AM
Board Number	106
Title of Presentation	*Surveillance evaluation of the tri-county perinatal hepatitis B virus prevention program, Oregon, 2008-2011**
Committee	Surveillance/Informatics
Topic	General surveillance topics
Keywords	Hepatitis | Surveillance | Evaluation

BACKGROUND

Perinatal transmission of hepatitis B virus (HBV) is up to 95% preventable when infants are provided with proper post-exposure prophylaxis (PEP), which includes immunoglobulin (HBIG) and a complete series of timely vaccinations. Federal funding is provided to local health departments for Perinatal Hepatitis B Prevention Programs (PHBPP) that identify pregnant women with HBV and assure that infants receive PEP and post-vaccination serology testing. The Oregon Tri-County PHBPP, which includes Multnomah, Washington and Clackamas counties, has never been formally evaluated. We aim to determine how capable the PHBPP is at identifying the population of women with HBV in the tri-county area and ensuring appropriate case management and follow-up of infants?

METHODS

We used the updated CDC guidelines for surveillance system evaluations. PHBPP data were linked to Multnomah County birth certificates (BCs) and HBV indicators were compared to estimate PHBPP sensitivity and level of agreement between the two sources. BC data are not a gold standard for HBV reports, therefore the true sensitivity of the system remains unknown. Capture-recapture methodology was used to determine the estimated number of infants born to HBV+ women in the population. Tri-County vaccine completion and post-serology testing rates were determined for children meeting the eligible age for vaccination and testing.

RESULTS

From 2008-September 2011, the PHBPP identified 218 infants born to mothers with HBV in Multnomah County and a total of 349 in the Tri-County area. An additional 40 HBV cases were indicated by BCs but not reported to the PHBPP. This demonstrates that the PHBPP captured 79.1% of HBV cases identified by BCs. A kappa statistic determined substantial agreement (?=0.74, 95%CI 0.69-0.79) between sources. The estimated number of infants born to HBV+ mothers in Multnomah County was 276. In the Tri-County, over 96% of infants received both HBIG and initial vaccine at birth, while 78.8% of the 297 eligible infants received a complete vaccine series. Additionally, post-serology testing was completed for 75.6% of eligible children (N=234) with 62.8% completing testing within the recommended timeframe (9-15 months).

CONCLUSIONS

Periodic BC surveillance should be used as an additional source for identification of infants at risk for HBV; however, BC documentation of infection may not be completely accurate and some women may have changed residence since giving birth. Although HBIG and initial vaccine rates remain high, post-vaccination serology testing and vaccine series completion show a need for improvement.

POSTER PRESENTER

JIANPING DANIELS

Nebraska Department of Health and Human Services

Abstract ID	1326165
Date/Time	June 4, 3:30 PM
Board Number	114
Title of Presentation	*Using University of Nebraska Alumni network to evaluate a statewide awareness campaign promoting colorectal cancer screening **
Committee	Chronic Disease/Maternal and Child Health/Oral Health Sub-Committee
Topic	Evaluating CD/MCH/OrH programs
Keywords	Cancer | Health promotion | Evaluation

BACKGROUND

Colorectal cancer is the third most commonly diagnosed cancer and second leading cause of cancer deaths in Nebraska in the past decade. The colorectal screening rates in adults age 50 and older in 2008 are 20% for FOBT over the past two years and 59% for colonoscopy in lifetime. Given a strong sports culture in Nebraska, an intensive statewide awareness campaign featuring Husker sports was launched to promote colorectal cancer screening between July 2008 and August 2009. The University of Nebraska Alumni Association which is known as having good access to Husker sports fans was contracted to carry out a survey after the campaign. This study used this survey to evaluate the effectiveness of the campaign and explore better ways of delivering health messages.

METHODS

For purpose of this study, an alumnus is defined as an adult residing in Nebraska who attended the University of Nebraska at one point of his/her life. The questions included if and where they have seen or heard the messages and what the messages are, as well as their preference on social marketing tools. More than 10,000 surveys were sent out and 2,507 were returned.

RESULTS

Of the 2,507 respondents, 47% were female and 53% were male. Twenty nine percent of them were between 40-49 and 54% were 50 or older. Fifty six percent of the respondents reported seeing the campaign messages and 56% of those knew this campaign promoted colorectal cancer screening. After seeing the messages 8% reported talking to doctors, 11% encouraging friends to get screened and 11% getting screened themselves. The appropriate ways of delivering health messages for future campaigns were explored in this survey. Approximately 37% of the respondents aged 40-49 and 78% of the respondents age 50 and older reported that they occasionally or never used text messages. Eighty seven percent of the respondents claimed to follow up Husker sports by radio (80%), attending games (63%), watching TV (48%), going to the website (39%), and/or buying a game day program (19%). Compared to adults aged 40-49 who rank TV and radio as their No.1 and No.2 social marketing tools, adults aged 50 and older favored TV and newspapers/magazines.

CONCLUSIONS:

The vast majority of the respondents are age-eligible for colorectal cancer screening. The campaign had a positive impact on raising awareness and increasing screenings. Texting is not an effective way to reach target population, but TV, radio, and newspaper/magazines are.

POSTER PRESENTER

KATIE FULLERTON

Centers for Disease Control and Prevention

Abstract ID	1326763
Date/Time	June 4, 10:00 AM
Board Number	107
Title of Presentation	*Trends in timeliness and completeness of reporting to the Listeria Initiative, 2004–2010 **
Committee	Surveillance/Informatics
Topic	Surveillance indicators
Keywords	Surveillance | Evaluation | Outbreak investigations

BACKGROUND

Invasive listeriosis is a rare, severe disease, which primarily affects older adults, immunocompromised persons, and pregnant women and their fetuses and newborn infants; finding controls for these populations can be challenging during listeriosis outbreak investigations. In 2003, CSTE adopted a position statement recommending: 1) prompt, routine interviews of all patients using a standardized questionnaire, and 2) forwarding of all Listeria monocytogenes isolates for pulsed-field gel electrophoresis (PFGE) subtyping at public health laboratories. Accordingly, CDC launched the Listeria Initiative (LI) in FoodNet sites in 2004 and expanded it nationwide in 2005. The LI database links epidemiologic data with PFGE results. These linkages have facilitated investigations of 58 listeriosis clusters/outbreaks since 2004, and led to the recall of contaminated Mexican-style cheese made from pasteurized milk, celery, hog head cheese, sprouts, and milk contaminated post-pasteurization.

METHODS

We tabulated the annual number of states reporting to the LI for 2004–2010 and compared the number of cases reported through the LI to the number of cases reported to the National Notifiable Disease Surveillance System (NNDSS) and to the number of patterns from Listeria isolates uploaded to PulseNet. We also evaluated timeliness of LI reporting and PulseNet upload, completeness of LI case reports, and proportion of interviews completed using the LI questionnaire.

RESULTS

The number of states reporting to the LI increased steadily from 2004 (n=10 states) to 2010 (n=42); annual case reports increased from 114 (2004) to 574 (2010). The proportion of NNDSS cases reported to the LI increased from 15% to 70%; among human isolates uploaded to PulseNet, the proportion linked to an LI questionnaire increased from 21% to 65%. The median time from case interview to LI report ranged from 36 (2008) to 55 days (2010); the median time from specimen collection to PulseNet upload decreased from 2004 (28 days) to 2009 (16) but increased in 2010 (28). The proportion of reports completed using the LI questionnaire decreased from 2004 (92%) to 2010 (76%). The completeness of food history also declined (2004: 75% versus 2010: 49%).

CONCLUSIONS

As the number of states reporting to the LI and the proportion of cases reported has increased, the timeliness of reporting to the LI and PulseNet uploads has declined. Some states continue to report cases using non-standard forms, limiting the amount and comparability of food history data. Improvements in the timeliness and completeness of reporting could further facilitate timely investigation of listeriosis clusters.

POSTER PRESENTER

KATY GONZALES

Michigan Department of Community Health

Abstract ID	1322145
Date/Time	June 4, 3:30 PM
Board Number	116
Title of Presentation	*Measuring the burden of excessive alcohol consumption among Michigan residents: Alcohol-attributable hospitalizations, 2001-2010 **
Committee	Cross Cutting Sub-Committee
Topic	Substance abuse epidemiology: Burden of alcohol and opiate use, Polices related to substance abuse
Keywords	Alcohol | Hospital data | Epidemiology

BACKGROUND

Excessive alcohol consumption is the third leading cause of death in the United States. Consuming alcohol beyond moderate levels increases the risk of negative outcomes and is a causal factor in more than 60 types of diseases and injuries. The purpose of this analysis was to describe alcohol-attributable hospitalizations among Michigan residents.

METHODS

The study population consisted of Michigan residents discharged from acute-care hospitals between January 1, 2001 and December 31, 2010 with a primary diagnosis of an alcohol-attributable condition. These conditions included: alcohol psychoses, acute alcohol intoxication, alcohol abuse, alcoholic polyneuropathy, alcoholic cardiomyopathy, alcoholic gastritis, alcoholic liver diseases, fetal alcohol syndrome, excessive blood level of alcohol, toxic effect of ethyl alcohol, and accidental poisoning by alcoholic beverages. Characteristics of alcohol-attributable hospitalizations were compared to all other hospitalizations using Pearson's chi-square tests and differences between estimates were statistically significant when $p<0.05$. Prevalence estimates of alcohol-attributable hospitalizations by patient demographics, source of admission, discharge disposition, insurance type and total hospital charges were generated.

RESULTS

Between 2001-2010, there were a total of 94,695 hospital stays among Michigan residents that resulted directly from excessive alcohol consumption. Approximately three-quarters (73.7%) of alcohol-attributable hospitalizations were among men and almost two-thirds (63.3%) occurred among adults aged 35-54. The average 9,470 hospitalizations totaled approximately 115 million dollars in hospital charges each year. A substantial proportion of alcohol-attributable hospitalizations were paid out of pocket (more than $13 million per year). Self-payment varied by alcohol condition (8.1-22.2%) and was considerably higher for alcohol conditions than all other hospitalizations (2.2%). Individuals hospitalized with an alcohol condition were more likely to be admitted to the hospital through the emergency department (78.6% v. 57.6%) and were 3.5 times more likely to discontinue their care or leave against medical advice compared to those hospitalized for other conditions (12.9% v. 3.6%).

CONCLUSIONS

The large proportion of self-payment among alcohol-attributable hospitalizations is a major public health concern; those paying out of pocket are most likely uninsured and represent an at-risk population that is less likely to have access to and utilize primary and/or managed care and more likely to delay seeking treatment. Previous research has demonstrated that these individuals may have missed opportunities for screening and behavioral interventions and that their conditions are often more progressed than if they had some form of health insurance.

POSTER PRESENTER

KATY GONZALES

Michigan Department of Community Health

Abstract ID	1327412
Date/Time	June 4, 3:30 PM
Board Number	117
Title of Presentation	*Using market research data to explore alcohol-related behaviors among Michigan adults, 2011 **
Committee	Cross Cutting Sub-Committee
Topic	Substance abuse epidemiology: Burden of alcohol and opiate use, Polices related to substance abuse
Keywords	Alcohol Use | Data/Surveillance | Minorities

BACKGROUND

Traditional data sources measuring adult alcohol consumption provide a variety of prevalence estimates on current and binge drinking. However little is known about the types and brands of alcohol adults consume, where these products are purchased, and how they are associated with detailed demographic characteristics, such as race/ethnicity, age, sex, and income. Additionally, these data sources cannot be used to understand consumption patterns among small populations or for small geographic areas. We utilized a novel data source to explore these factors as they relate to adult drinking behavior in Michigan.

METHODS

We used Nielsen 2011 data and software to categorize Michigan adults into market segments that describe demographics and consumer behavior. Reports were generated to describe alcohol-related consumer behavior and compare the types and brands of alcohol being purchased by different demographic groups in Michigan. Maps were generated to identify where these groups live.

RESULTS

Individuals making over 100,000 dollars a year were approximately four times more likely to purchase premium wines, such as Clos Du Bois, Blackstone and French red wine, during the past week and were more than three times as likely to purchase wine, liquor and beer at a wholesale membership club than other groups. This subgroup was also more likely to purchase more expensive brands of liquor (Ketel One Vodka, Stolichnaya Vodka and Makers Mark) and beer (Anchor Steam Beer, Amstel Light and Sierra Nevada Ale) over the past six months. Conversely, in the past six months, lower income individuals were more than three times as likely to purchase inexpensive malt liquor and alcohol, such as Colt 45, Olde English 800 and E & J, compared to the overall Michigan population. In addition, these individuals were more likely to purchase liquor at a convenience store and live in urban areas. Compared to other groups, individuals under 35 years and low income individuals had similar purchasing behaviors, particularly inexpensive beer, such as Pabst Blue Ribbon Beer and Keystone Beer.

CONCLUSIONS

Market research data expand information available on adult alcohol consumption, including which brands are being purchased, where, and by whom. This can be used to develop targeted interventions as well as to inform policy related to community development and alcohol availability.

POSTER PRESENTER

ROBERT GRAFF

Idaho Department of Health and Welfare

Abstract ID	1315530
Date/Time	June 4, 3:30 PM
Board Number	111
Title of Presentation	*Creating a lead risk map using parcel level data **
Committee	Chronic Disease/Maternal and Child Health/Oral Health Sub-Committee
Topic	Generating and using county and local-level data for CD/MCH/OrH epidemiology
Keywords	Geographic Information Systems | Lead | Environmental Health

BACKGROUND

Idaho does not currently have a funded childhood lead program. As a result there is scant data available on lead screening numbers and resources are limited. To help local agencies better target childhood lead screening efforts to geographic areas most in need a lead risk map will be created for the most populous county in Idaho.

METHODS

The Department of Health and Welfare has obtained parcel level data for Ada County from the county tax assessor's office. Using ArcGIS 10.0, a lead risk map will be created based on the year that the house was built (i.e., pre-1978, pre-1950). Census data (% children under 5, % below poverty) and screening information (% Medicaid children screened) at the census block level will be joined to the parcel data in order to identify geographic areas in need of increased screening efforts. Maps at the parcel level resolution will be available, but it is anticipated that the most visually useful (and actionable) maps will be those in which the lead exposure risk is aggregated to the census block group or tract level (ex., displaying block groups where >80% of homes are built pre-1978).

RESULTS

In addition to the map(s) itself, a list of geographic areas to prioritize for child lead screening (ex., block groups with >80% of homes built pre-1978) will be shared with local agencies involved in childhood lead screening such as Medicaid, local health districts, and local Head Start programs. For Medicaid, those areas which also have a low % of children screened will be given heightened priority.

CONCLUSIONS

It is anticipated that these maps will result in the development of more efficient and cost-effective lead screening efforts by local agencies, in which higher risk areas are systematically targeted for screening. It is also hoped that the mapping project will enhance relationships with local agencies and result in the project being expanded to other counties.

POSTER PRESENTER

MEGHAN HARRIS

Iowa Department of Public Health

Abstract ID	1332692
Date/Time	June 4, 3:30 PM
Board Number	119
Title of Presentation	*Public sector principles of data governance: A case study of the Iowa Department of Public Health **
Committee	Cross Cutting Sub-Committee
Topic	Public health laws and policies: Role of epidemiology and data
Keywords	Policy/Policy Development | Data/Surveillance | Information systems

BACKGROUND

In recent years, the Iowa Department of Public Health (IDPH) experienced difficulties stemming from intra-departmental lack of standardization in data management. In 2010, conflicting pregnancy statistics in separate reports were released by the department. The error was not identified until an event of public interest drew attention to the statistic. A review of reports with data content uncovered that more than 190 reports were on the IDPH website. Those reports were viewed less than once a day; about 30 had fewer than 100 views in a year. Approximately 61% of IDPH published reports go through editorial review and < 50% are reviewed by a subject matter expert. The core of these issues is a lack of standards and oversight to assure data quality. Data governance (DG) is a term used widely in private sector to describe appropriate data management. The principles of DG address the issues faced by IDPH and other state health departments. In 2011, IDPH conducted a department-wide quality improvement project with the intent of establishing data governance. Despite budget constraints and mandates to improve quality, IDPH staff worked through a comprehensive data needs assessment and recommendation development process without using extraneous resources.

METHODS

Three web-based surveys and two Excel workbooks were used in data collection. All 92 department programs completed the assessment. Results were analyzed in SAS. DG recommendations were developed in a series of facilitated sessions involving the state medical director, attorney general's office, epidemiologists and statisticians.

RESULTS

The data needs assessment set quantifiable baselines for data competencies and management issues for the department (www.idph.state.ia.us/adper/data_warehouse.asp). Analysis was completed at the program level, one organizational level above individual. Recommendations were formed and several have been initiated. The most important involved the formation of a DG council and appointing a data czar; a single person to oversee all data issues. Other recommendations were: establish a standards manual and clearance process, host source files for all widely used datasets (e.g., birth records), formalize the process for use of health data for research, provide guidance for hiring new employees and set minimum competencies for existing staff, and determine how to sustain DG.

CONCLUSIONS

IDPH has already progressed on some of these recommendations. Cost-savings and efficiency are known outcomes of setting up DG in an organization. Iowa's experience in taking action to address these issues may be used by other states to address their data concerns.

POSTER PRESENTER

ALISON HUGHES

San Francisco Department of Public Health

Abstract ID	1332335
Date/Time	June 4, 10:00 AM
Board Number	105
Title of Presentation	*Congruence between self-report and medical record CD4 lymphocyte and HIV viral load test results among HIV-infected patients in care **
Committee	Infectious Diseases Sub-Committee
Topic	HIV
Keywords	HIV/AIDS | Epidemiology | Health care

BACKGROUND

Self-reported medical information is a relatively inexpensive and convenient way to collect patient health information for research purposes. However, the ability to accurately recall health information, particularly laboratory values, is variable. We compared patient interview data with data collected during medical chart review among patients participating in the Medical Monitoring Project (MMP), a HIV/AIDS supplemental surveillance project of patients receiving HIV care, to assess patients' accuracy reporting CD4 cell count and HIV viral load test results and investigated factors associated with having congruent results.

METHODS

We analyzed data from HIV-infected adults seen at San Francisco outpatient health care facilities from 2007 to 2008 who were enrolled in MMP. Analyses were restricted to patients who self-reported a most recent viral load test or CD4 cell count and had corresponding laboratory results in their medical chart. Kappa coefficients were calculated to assess agreement between self-reported HIV viral load and CD4 cell count results recorded in their medical chart. For HIV viral load, congruence was defined as both values being either undetectable (defined as ≤ 200 copies/ml); detectable and <5,000 copies/ml; 5,000-100,000 copies/ml; or >100,000 copies/ml. Additionally, HIV viral load was dichotomized as detectable versus undetectable. For CD4 count, congruence was both values being: 0-49 cells/mm3; 50-99 cells/mm3; 100-199 cells/mm3; 200-349 cells/mm3; 350-499 cells/mm3; or ≥ 500 cells/mm3. Multiple logistic regression was utilized to assess demographic and behavioral factors associated with congruent test results. Adjusted odds ratios (AORs) were calculated.

RESULTS

Of the 329 MMP patients, 285 (87%) had a most recent viral load and 284 (86%) had a most recent CD4 count value in both the interview and medical chart. Eighty-nine percent (n=253) had congruent HIV viral load values, 93% (n=265) when categorized as detectable or undetectable and 76% (n=216) had congruent CD4 values. The unweighted kappa coefficient was 0.62 (95% CI: 0.52-0.73) for HIV viral load and 0.64 (95% CI: 0.57-0.71) for CD4 count. Patients who were ?50 years compared to those 18-39 years and patients currently taking ART were more likely to report congruent results for HIV viral load (AOR= 3.9, 95% CI: 1.1-14.0; AOR=5.4, 95% CI:2.0-14.9, respectively). Patients who reported ever using injection drugs were less likely to have congruent HIV viral load values (AOR= 0.4, 95% CI: 0.2-0.9). Continuous health insurance coverage during the past year was associated with having congruent CD4 results (AOR=2.8, 95% CI: 1.3-6.2).

CONCLUSIONS

The majority of patients accurately reported HIV viral load and CD4 cell count results indicating that self-report may provide a reasonable approximation of medical record values. This has implications for patients who change medical providers and may need to rely on self-report of test results and for research surveys that only collect participant-reported data. Greater concurrency may reflect more interest in health-related details among older patients and persons receiving ART. However, the increase in congruence when HIV viral load results were dichotomized rather than categorized as well as the slightly lower congruence with CD4 cell count indicate that recall of specific numerical values may be difficult for some patients and suggest that clinically meaningful categories for self-reported laboratory values should be utilized.

POSTER PRESENTER

LAUREN JOE

California Department of Public Health

Abstract ID	1326952
Date/Time	June 5, 10:00 AM
Board Number	123
Title of Presentation	*Using an administrative workers' compensation claims database for occupational health surveillance in California: Validation of a case classification scheme for carpal tunnel syndrome **
Committee	Occupational Health Sub-Committee
Topic	Improving occupational health surveillance
Keywords	Occupational Surveillance | Occupational Health | Surveillance

BACKGROUND

In 2000, the California Department of Industrial Relations implemented the electronic Workers' Compensation Information System (WCIS). WCIS was created for administrative purposes, but can be used for occupational health surveillance. In 2010, the California Department of Public Health Occupational Health Branch received funding from the National Institute for Occupational Safety and Health to utilize WCIS for surveillance of carpal tunnel syndrome (CTS). CTS is one of several work-related upper extremity musculoskeletal disorders that result from biomechanical stress or trauma. Because CTS often has a long latency period before diagnosis, case ascertainment from an administrative dataset is challenging. To better classify the CTS cases extracted from WCIS, we reviewed a sample of cases that occurred in 2007-2008, developed a case classification (CC) scheme, reviewed medical records to validate the scheme, and calculated positive predictive value (PVP) and negative predictive value (NPV).

METHODS

CTS cases from 2007-2008 were extracted from the WCIS database using an algorithm combining text searches, ICD-9 codes, and nature of injury codes. After manually reviewing a sample of cases, we developed a CC scheme that categorized cases into three levels: probable, possible, and uncertain. Medical records for a sample of cases were independently reviewed by two physicians to validate the scheme. Probable and possible categories were aggregated to calculate medical record review agreement rates, PPV, and NPV.

RESULTS

41,292 CTS claims (29% probable, 42% possible and 23% uncertain) were extracted from WCIS. We received and reviewed 60 medical records (43% probable, 33% possible and 23% uncertain). 83% of them had a WCIS CC that matched the CC determined by both medical record reviewers, and 18% did not. Of the non-matches, 64% were false negatives and 36% false positives, resulting in a PPV of 0.91 and a NPV of 0.50.

CONCLUSIONS

Results suggest that our WCIS CC scheme underestimates the number of probable/possible cases. 50% of cases with an uncertain CC were found to be probable/possible after medical record review. This discrepancy can be attributed to poor coding of the WCIS claim, as well as the subsequent development of CTS following traumatic injury to the upper extremity. Our analyses demonstrate some of the challenges of using a static, administrative dataset for public health surveillance of a chronic medical condition with a long latency period. Despite these challenges, however, workers' compensation data adds a great deal to the enumeration of CTS in California.

POSTER PRESENTER

LINDSEY JONES

Tennessee Department of Health

Abstract ID	1321868
Date/Time	June 4, 3:30 PM
Board Number	112
Title of Presentation	*Seasonality of asthma emergency department visits among Tennessee children* *
Committee	Chronic Disease/Maternal and Child Health/Oral Health Sub-Committee
Topic	CD/MCH/OrH surveillance
Keywords	Asthma | Surveillance | Children and adolescents

BACKGROUND

Asthma is characterized by episodic and reversible airflow obstruction and airway hyper responsiveness. It is the third leading cause of hospitalization for children and one of the most common childhood chronic diseases. The cause of asthma is unknown with triggers including exercise, tobacco smoke, air pollution and other allergens. Poor asthma management leads to asthma attacks which can result in emergency department (ED) visits and hospitalizations. Understanding the seasonality pattern of asthma ED visits helps guide the planning process of asthma control and intervention.

METHODS

The 2005-2009 Tennessee Hospital Discharge Data System (HDDS) data was used to identify ED records of Tennessee resident children age 5-17 with a primary diagnosis of asthma (ICD9-CM codes 493). A five year monthly average was used to describe the seasonality for this population by socio-demographic characteristics of age group, gender, race, rural/urban residence, and payment method. The Fisher-Kappa (FK) statistic and the Bartlett Kolmogorov Smirnov (BKS) statistic were used to detect periodicities in asthma ED visits from the time period of January 2005- December 2009. Chi square tests were used to assess differences in patient characteristics between fall (September-November) and non-fall (December-August) ED admissions.

RESULTS

Between 2005-2009 there were 43,159 ED visits among children age 5-17 due to asthma. Results show a consistent seasonality pattern of fall peaks and summer troughs regardless of age, gender, race, rural/urban residence or payment method. All FK values were significant and p-values from BKS were <0.001, indicating that all asthma time series exhibited periodicity. When stratified, age 5-8 had the highest rate compared to 9-12 and 13-17, males had higher rates than females, blacks had higher rates than whites, urban residents had higher rates than rural residents and patients on Tenncare (Tennessee Medicaid) had higher rates than patients with private insurance. There was a higher percentage of younger, male, black, and urban children admitted to the ED in the fall compared to non-fall admissions (all p-values <0.001). Between 2005 and 2009, a downward trend in magnitude of the fall peak of asthma ED visits was observed in all demographic subgroups. The most pronounced decrease was seen in black children (34% decrease).

CONCLUSIONS

There were seasonal variations of asthma ED visits in Tennessee children from 2005-2009. The highest rates of admissions occurred in the fall months and a greater percentage of children admitted during this time were younger, male, black, and urban residents.

POSTER PRESENTER

SARAH KEMBLE

Minnesota Department of Health

Abstract ID	1322203
Date/Time	June 4, 10:00 AM
Board Number	101
Title of Presentation	*Association of asthma with seasonal and pandemic H1N1 influenza among children with medically attended respiratory illness in a Wisconsin population cohort — 2007–2009 **
Committee	Infectious Diseases Sub-Committee
Topic	Influenza
Keywords	Influenza / Pandemic influenza | Asthma

BACKGROUND:

Influenza has been associated with asthma among hospitalized children; less is known among pediatric outpatients. We examined this association in a primarily outpatient setting to inform prevention and treatment recommendations.

METHODS:

We conducted a study among children aged 5–17 years in a defined community cohort seeking care for acute respiratory illness during the 2007–2008 and 2008–2009 influenza seasons and the 2009 H1N1 pandemic. Patients with respiratory illness, including fever or cough <8 days in duration, were prospectively recruited and tested for influenza by real-time reverse transcription polymerase chain reaction. Participants were classified as having confirmed, possible, or no asthma based upon previous diagnoses and prescription records. Associations between asthma and seasonal and pandemic influenza were determined using logistic regression, controlling for age and sex; influenza vaccination status was included for seasonal influenza only because pandemic vaccine was unavailable until after the pandemic wave.

RESULTS:

We enrolled 3,416 children (females: 51%; median age: 9 years; asthma: 11%). Before the pandemic, 51/150 (34%) with confirmed asthma and 507/1,173 (43%) without asthma tested positive for influenza. However, 50% of those with asthma and 25% without asthma were vaccinated. No significant association between asthma and seasonal influenza existed after adjusting for covariates (adjusted odds ratio (aOR): 0.74; 95% confidence interval (CI): 0.52–1.07). During the 2009 H1N1 pandemic, 53/100 (53%) with confirmed asthma and 225/603 (37%) without asthma tested positive for influenza (aOR: 1.86; CI: 1.21–2.86).

CONCLUSIONS:

Among children seeking care for respiratory illness, asthma was associated with influenza during the 2009 pandemic, but not the previous 2 seasons. Our findings suggest that children with asthma were disproportionately affected by the 2009 H1N1 virus.

POSTER PRESENTER

KIERSTEN KUGELER

Centers for Disease Control and Prevention

Abstract ID	1331587
Date/Time	June 4, 10:00 AM
Board Number	104
Title of Presentation	*Human tularemia in the United States: 2001-2010 **
Committee	Infectious Diseases Sub-Committee
Topic	Zoonoses
Keywords	NNDSS | Data/Surveillance | Zoonotic disease

BACKGROUND

Tularemia is a zoonotic disease caused by Francisella tularensis subsp. tularensis (type A) and subsp. holarctica (type B). Transmission to humans occurs by multiple routes and severity ranges from mild to life-threatening. In 1999, CSTE voted to reinstate tularemia as a notifiable disease due to concern regarding bioterrorism, with the goal of monitoring the current epidemiology of naturally-occurring tularemia in the United States.

METHODS

Tularemia cases are reported through the National Notifiable Diseases Surveillance System (NNDSS). Isolates were requested of health departments, identified to subspecies by biochemical analysis and subtyped by pulsed-field gel electrophoresis (PFGE). Clinical and exposure details, not available through NNDSS, were requested during 2008-2010 following creation of a national tularemia case report form.

RESULTS

During 2001-2010, 47 states reported 1208 tularemia cases; 64% were classified as confirmed. A median of 127 cases were reported each year (range: 90-154). Over half of all cases (56%) were reported from six central and south-central states (Missouri, Arkansas, Oklahoma, Kansas, Nebraska and South Dakota), although incidence was highest in Dukes County (Martha's Vineyard), Massachusetts (430 cases/100,000 population). Overall, rates were higher among males (0.6/100,000), persons aged 5-9 and 65-69 (both 0.7/100,000) and American Indians (2/100,000). Two-hundred sixty-six isolates from 33 states were available for testing; 68% were type A. Among states with ≥10 isolates tested, type A strains accounted for anywhere from 10% to 96% of isolates. PFGE subtyping revealed distinct clades that, combined with patient data, demonstrate geographic and virulence differences. Clinical and exposure details were available for 33% (n=121) of cases reported during 2008-2010; 65% percent were ulceroglandular (58/89), 63% required hospitalization (65/104), and 6% were fatal (6/102). Tick or deerfly bite was a commonly reported exposure (68%, 56/82), as was contact with a sick or dead animal (38%, 23/60).

CONCLUSIONS

The geographic distribution of tularemia is broad, but incidence remains very low outside of distinct foci. Elevated incidence in males, certain age groups, and American Indians likely reflects greater possibility for outdoor exposures. Although subject to reporting bias, the observed rate of hospitalization is substantial, and mortality is higher than in published case series. Submission of case details and isolates allows for analyses not possible based on NNDSS data alone. Furthermore, development of a reference library of PFGE patterns has allowed for greater differentiation of F. tularensis and led to a more thorough assessment of the current epidemiology of tularemia in the US.

POSTER PRESENTER

KATHRYN LANE

New York City Department of Health and Mental Hygiene

Abstract ID	1330593
Date/Time	June 4, 10:00 AM
Board Number	108
Title of Presentation	*Evaluating the potential uses of hypothermia syndromic surveillance in New York City **
Committee	Surveillance/Informatics
Topic	General surveillance topics
Keywords	Evaluation | Surveillance | Environmental Health

BACKGROUND

Weather-related hypothermia is a preventable cause of mortality and morbidity among urban homeless populations and those with inadequate heat at home. Timely surveillance of hypothermia illness could help inform public health protection measures during severe winter weather. We conducted a retrospective analysis to evaluate the utility of possible hypothermia ED visits identified by syndromic surveillance. We compared geographic, temporal, and weather correlates of hypothermia syndromic illness, hospital admissions and ED visits, and deaths.

METHODS

A hypothermia syndrome (HS) case definition comprised of chief complaint key words and ICD 9 codes was applied to an archive of 2008-2009 cold season (October to April) syndromic surveillance data reported from a subset of NYC emergency rooms, representing 95% of all ED visits in NYC. All inpatient (ID) and emergency department (ED) hypothermia hospital discharges were identified with ICD-9 codes (991, E901.0, E901.8, E901.9, E988.3); hypothermia deaths (HD) were identified with ICD-10 code X31. Patient characteristics, including age, gender, and alcohol involvement, were compared. Poisson regression models were fit to estimate the relation of daily temperature, precipitation, and snow depth to HS and ID counts.

RESULTS

477 HS cases were identified from 2008-2009, with an average annual rate of 2.8 per 100,000 people. 765 total hospitalizations (4.6 per 100,000), 698 EDs (4.2 per 100,000), and 23 HDs (0.1 per 100,000) were identified during the same time period. More than 80% of HDs occurred in those aged 45 and older, 26% had no fixed address, and 17% were injured in their homes. Proportions of cases identified did not vary significantly by age group, gender, or borough when comparing syndromic surveillance with hospital discharge data. The majority of cases occurred in December and January. In preliminary analyses, mean minimum daily temperature and mean snow depth were associated with increases in daily hypothermia syndrome counts and ID counts.

CONCLUSIONS

Cases of hypothermia identified through syndromic surveillance had a similar demographic and temporal pattern as those identified through hospital discharge data. Syndromic surveillance of cold-related illness may provide officials with timely and representative data to inform prevention efforts during cold weather and winter storms. Daily mean minimum temperature and mean snow depth are potentially useful in determining timing of analyses.

POSTER PRESENTER

KATHY LEINENKUGEL

Iowa Department of Public Health

Abstract ID	1326488
Date/Time	June 5, 10:00 AM
Board Number	121
Title of Presentation	*Adult lead poisoning cluster from ayurvedic product usage in Iowa, 2011 **
Committee	Environmental Health Sub-Committee
Topic	Other Emerging Environmental Epidemiology Issues
Keywords	Alternative Medicine/Therapies | Lead | Environmental exposures

BACKGROUND

In April, 2011, an adult white non-Hispanic male seen at a neurology clinic for a two-year follow up of a previous intracranial hemorrhage demonstrated worsening neurological deficits. A heavy metal panel reported a blood lead level of 93.6 µg/dL. The patient reported ingesting two ayurvedic products obtained in India since June 2010. Test results for one product called bhasma revealed 19,400 mg/Kg lead and 1,430 mg/Kg arsenic. More than 100 adults living in the rural, predominantly Caucasian, community who also used ayurvedic products were tested over the following six months and over 200 ayurvedic product samples were submitted for heavy metal testing. The company in India supplying the products reported 1600 customers in the USA and Europe.

METHODS

This is a retrospective observational post-investigation study of reported blood lead and supplement assay test results received by the State of Iowa Adult Blood Lead Epidemiology and Surveillance (ABLES) program.

RESULTS

Forty-four Iowa adults using ayurvedic products were identified as cases with elevated blood lead levels (EBLs) of 10 µg/dL or greater. Four adults had elevated blood mercury levels (10 ng/ml or greater). The mean age of the Iowa cases was 62 years (range 45 - 74). The mean initial EBL was 37 µg/dL (range 11-94) with 32 of 44 (73%) having initial EBL results of 25 µg/dL or greater. Product testing revealed high levels of lead, mercury, arsenic, and other heavy metals in numerous products. The ability to correlate specific product exposure to persons with abnormal test results was limited. Many of the people using the ayurvedic products declined to participate in the epidemiologic investigation. Products submitted for testing had handwritten labels and were not identified by a lot or batch number from the supplier. Because the products were reported to be obtained directly from a supplier outside of the USA, the FDA had limited ability to intervene.

CONCLUSIONS

The use of alternative medicine products continues to expand into the mainstream population in the USA. Users may have an increased risk of exposure to toxic substances, especially when the products are manufactured outside of the USA. Consumers and medical practitioners need to be aware of the potential risk and discuss the use of all supplements to determine the need for testing or intervention.

POSTER PRESENTER

SHAO LIN

New York State Department of Health

Abstract ID	1331130
Date/Time	June 5, 10:00 AM
Board Number	122
Title of Presentation	*Associations between composite weather factors and water/foodborne disease hospitalizations in summer in New York State from 1991 to 2004 **
Committee	Environmental Health Sub-Committee
Topic	Climate change epidemiology and public health
Keywords	Climate change | Foodborne disease | Waterborne disease

BACKGROUND

In 2011 CDC estimated that roughly 1 in 6 Americans would be sickened by foodborne diseases alone. Because of substantial economic burden, and vulnerability to climate changes and weather exposures, waterborne and foodborne diseases (WFBD) are major public health problems. Considering that weather is a suite of dynamic conditions of the ground level atmosphere with multiple factors, and that most of the literature has only focused on individual weather conditions, we proposed to study holistic effects of composite weather exposures on WFBD hospitalizations in New York State in summer (June to August) from 1991 to 2004. We also assessed the potential interact effects of demographic factors and disease pathogens on the health outcome.

METHODS

A time series GAM (generalized additive models) model, adjusting for long term trend, weekly pattern and holidays, was applied to investigate the impacts of composite weather indicators on hospitalizations due to WFBD. The daily WFBD hospitalization counts obtained from the Statewide Planning and Research Cooperative System (SPARCS) were linked with weather indicator data from the 'Spatial Synoptic Classification' system developed by Dr. Scott Sheridan. Composite weather exposures were grouped into seven types of air masses: Dry Moderate, Dry Polar, Dry Tropical, Moist Moderate, Moist Polar, Moist Tropical and Transition. Demographic and pathogen stratified analyses were also performed to investigate the correlation of composite weather type with the WFBD hospital admissions in each category.

RESULTS

Dry Tropical, Moist Tropical and Transition air masses were significantly associated with hospitalizations for WFBD with an increased risk of 8.18%, 3.5% and 5.69% respectively, compared to Dry Moderate air mass. Stratified analysis showed that Moist Tropical-related percent changes in risk of WFBD hospitalization were greater among females (13.1%), non-Hispanics (6.8%), seniors aged 75 and above (12.5%), blacks (8.7%), and those with bacterial infections (15.3%).

CONCLUSIONS

Dry Tropical, Moist Tropical and Transition air masses may increase hospitalizations due to waterborne and foodborne diseases in summer in New York State. Bacterial infection may be the main cause for increase in hospitalizations for WFBD associated with Moist Tropical air mass. These findings can help identify sub-populations and possible pathogens potentially vulnerable to the effects of climate change and inform public health preparedness.

POSTER PRESENTER

JENNIFER MARCUM

Nebraska Department of Health and Human Services

Abstract ID	1322267
Date/Time	June 5, 10:00 AM
Board Number	125
Title of Presentation	*Glare-related motor vehicle crash trends in Nebraska, 2002–2009 **
Committee	Injury Control and Prevention Sub-Committee
Topic	Injuries resulting from motor vehicle or other transportation modes
Keywords	Injury surveillance | Motor vehicles

BACKGROUND:

Glare is a type of vision obstruction that causes a number of car crashes each year. Glare can be caused by any bright light, such as sunlight or car headlamps at night and can reduce driver visibility. The aim of this study is to characterize the circumstances of glare-related motor vehicle (MV) crashes and describe recent trends.

METHODS:

Nebraska crash data collected from police reports were used to describe glare-related crashes in the state from 2002–2009. Glare-related MV crashes were described by season, month, time of day and other crash circumstances.

RESULTS:

During 2002–2009, there was an average of one glare-related MV crash per day (n=3,093) in Nebraska. Approximately one percent of all MV crashes in the state were related to glare; this proportion did not change over the 8 year study period. There were a total of 16 deaths, 160 persons with severe injuries, 563 persons with moderate injuries, and 1,267 persons with possible injuries that resulted from glare-related MV crashes from 2002–2009. There were more glare-related crashes during September than any other month (21%, n=659). Glare-related MV crashes most commonly occur in the morning, between 7–9AM, and the late afternoon to early evening, between 4–8PM; peak crash times depend on the season. The majority of glare-related MV crashes involved another moving MV, bicyclist, or pedestrian (78%, n=2,400); occurred at intersections (71%, n=2,194); and involved vehicles traveling east or west (66%, n= 3,760).

CONCLUSIONS:

Glare can be caused by any light source that obstructs vision. These results, however, illustrate that sunlight is the most common cause of glare-related MV crashes in Nebraska as the majority of crashes occur during day time. Occurrences of glare-related MV crashes depend on the position of the sun; crashes peak shortly after the sun rises and again before sunset. During the autumnal equinox in September, the sun sets and rises almost exactly due east-west; this is likely responsible for the increase in glare-related MV crashes during that month. Identifying when and where glare-related MV crashes occur allow effective awareness messages to be constructed that inform the public about crash prevention.

POSTER PRESENTER

ANGELA MERGES

New York City Department of Health and Mental Hygiene

Abstract ID	1331404
Date/Time	June 4, 10:00 AM
Board Number	109
Title of Presentation	*From many to one: Development and evaluation of a unified patient match algorithm **
Committee	Surveillance/Informatics
Topic	Electronic disease surveillance systems (e.g., EDSS, NEDSS, etc.)
Keywords	Electronic data | Surveillance | Information technology

BACKGROUND

As part of an initiative to integrate and link disparate disease program registries, the NYC DOHMH developed the Electronic Disease Reporting Infrastructure (EDRI), a single data system for electronic disease reports from laboratories, hospitals, and health care providers. Previously, each disease program, such as Sexually Transmitted Diseases (STD), Tuberculosis (TB), Communicable Diseases (CD), and Vaccine Preventable Diseases (VPD), had utilized different methods and technologies to match patients. Linking patients across registries gives programs the ability to leverage data from other sources and makes cross-program analyses more feasible.

METHODS

To develop and evaluate the EDRI patient probabilistic match algorithm, each program submitted a sample gold-standard dataset with at least 100 sets of matches and non-matches. Sets contained at least one record that each program's pre-existing de-duplication method had identified as belonging to the same person (match) or to different persons (non-match). These records were de-duplicated using EDRI's patient match algorithm. The outcome of the EDRI match were compared to the gold-standard results to determine the sensitivity, specificity, and positive predictive value (PPV) of the patient match algorithm by disease control program and in aggregate. After reviewing discordant results for trends within and across programs, the algorithm was adjusted to achieve a priori defined goals of at least 90% sensitivity and 95% specificity overall.

RESULTS

A total of 33,030 records, with 6,216 sets, were submitted from all programs; among these there were 2,668 matches, and 3,548 non-matches. The EDRI patient match algorithm correctly identified 2,416 matches out of 2,668 gold standard matches (90.6% sensitivity), and correctly identified 3,488 non-matches out of the 3,548 gold standard non-matches (98.3% specificity) across all data sets. The sensitivity by program was: STD 91.7%; TB 93.0%; CD 76.9%; VPD 83.2%. The specificity by program was: STD 98.0%; TB 91.7%; CD 99.0%; VPD 98.4%. In addition, the overall PPV was 97.6%.

CONCLUSIONS

The development of a single patient match algorithm can be achieved with satisfactory results. Inherent in this success includes involvement of the data owners to reach consensus on match criteria, definition of a unique patient, goals, and evaluation methods. A unified data system allows for greater integration of disease-specific analyses and examinations of co-morbidities.

POSTER PRESENTER

JENNIFER MERTE

Clark County Public Health

Abstract ID	1332907
Date/Time	June 4, 10:00 AM
Board Number	110
Title of Presentation	*Assessing the usefulness of the CHILD Profile Immunization Registry to obtain or verify vaccination history to enhance pertussis surveillance in Clark County, Washington**
Committee	Surveillance/Informatics
Topic	General surveillance topics
Keywords	Surveillance | Vaccination | Information systems

BACKGROUND

Complete and accurate vaccine information is necessary to assess the impact of vaccination programs on protecting the public's health. Pertussis vaccine information for cases reported in Washington State is collected in the state's disease surveillance system, the Public Health Issue Management System (PHIMS). The CHILD Profile Immunization Registry (CPIR) is a separate statewide, web-based Immunization Information System which helps providers track their patients' (both children and adults) vaccinations. This study examines the potential usefulness of CPIR data as a means to verify or supplement pertussis vaccine information for cases in PHIMS.

METHODS

Reported pertussis cases in Clark County, Washington between January 1, 2005 and December 31, 2010 aged ≥7 months and who had a record in CPIR were examined. Pertussis cases were identified in the PHIMS database; demographics and data elements pertaining to vaccination history, including number and dates of doses, were collected. Cases were linked to the immunization registry by first name, last name, and date of birth. Number and dates of doses were collected from CPIR. Vaccination status was determined separately for each data source. Up to Date (UTD) was defined by age group according to the minimum doses recommended by the the Advisory Committee on Immunization Practices pertussis vaccination guidelines. Percent agreement between the two data sources was assessed for number of doses and UTD status.

RESULTS

Among the 189 pertussis cases identified in PHIMS, 55% (n=103) were also identified in CPIR. Agreement between the two data sources for number of recorded doses was 54% (n=56). Agreement for UTD status was 75% (n=77). Vaccination history was more complete in CPIR compared with PHIMS for 32% (n=33) of cases.

CONCLUSIONS

Use of CPIR supplemented vaccination history data for about 1/3 of pertussis cases aged ≥ 7 months reported from 2005-2010. CPIR provided useful surveillance data for pertussis disease investigation. Vaccine information entered into pertussis case reports should be as complete and accurate as possible because this information is critical to assessing the impact of vaccination programs on preventing vaccine preventable disease. The immunization registry might also be useful in preventing pertussis by identifying individuals who are not UTD.

POSTER PRESENTER

MARIA SAID

Maryland Department of Health and Mental Hygiene

Abstract ID	1326288
Date/Time	June 4, 10:00 AM
Board Number	102
Title of Presentation	*Legionella outbreak associated with solar rooftop water heating system—Maryland, 2011 **
Committee	Infectious Diseases Sub-Committee
Topic	Respiratory diseases, non-influenza
Keywords	Waterborne disease | Outbreaks | Respiratory diseases: Non-influenza

BACKGROUND

During September 2011, the Maryland Department of Health and Mental Hygiene (DHMH) identified a Legionnaires disease (LD) case associated with Ocean City Hotel A. Because exposure to aerosolized Legionella can cause severe pneumonia, we investigated to identify additional cases, assess exposure sources, and implement control measures.

METHODS

Cases were defined by radiographic pneumonia with laboratory identification of Legionella by culture, urine antigen testing (UAT), or seroconversion. Cases were identified through local case reporting, notification of hotel guests during the previous month, media, and Epi-X posting. Patients were interviewed by using a standard questionnaire. Environmental investigation included a walk-through evaluation and potable water testing for Legionella by established DHMH protocols.

RESULTS

Legionella pneumophila serogroup 1 (Lp1) was identified by UAT in 7 patients from 3 states; no cultures were performed. Six were hospitalized; of these 1 died. All had been Hotel A guests without other common exposures. Hotel A's potable water system was unusual for having an extensive, intermittently used, rooftop piping network using solar energy to preheat municipal water. Subsequent water temperatures were ≤ 44°C before distribution to individual rooms; industry guidelines recommend hot water storage at ≥ 60°C. Residual chlorine levels were as low as 0.01 mg/L (World Health Organization standard ≥ 0.2 mg/L). Lp1 was cultured from multiple sites, including within the rooftop piping. Incoming municipal water was negative for Legionella.

CONCLUSIONS

Multiple LD cases were linked to a complex potable water system whose nontraditional solar heating component was colonized with Lp1. Remediation of the hotel's water system was required. Solar systems might be increasingly used for energy conservation; however, their ability to harbor and amplify Legionella merits further study and, possibly, Legionella control standards.

POSTER PRESENTER

MARK STENGER

Centers for Disease Control and Prevention

Abstract ID	1326715
Date/Time	June 4, 10:00 AM
Board Number	103
Title of Presentation	*Population-based sentinel surveillance among persons Reported with* N. gonorrhoeae; *Addressing gaps in case reporting data with the STD Surveillance Network (SSuN)* *
Committee	Infectious Diseases Sub-Committee
Topic	Sexually transmitted infections
Keywords	Sexually Transmitted Diseases | Surveillance | Data/Surveillance

BACKGROUND

National case reporting is often incomplete with respect to essential case characteristics such as race and Hispanic ethnicity. These data are essential for revealing inequalities in disease burden and planning effective disease control interventions.

METHODS

Gonorrhea cases reported from 12 sites participating in the STD Surveillance Network (SSuN) were screened for eligibility (reported within 60 days of diagnosis and resident in the jurisdiction). A random sample was drawn from eligible cases and health department staff attempted to contact selected patients for a brief demographic and behavioral interview. Weighted interview data were used to estimate gonorrhea incidence rates by race and Hispanic ethnicity across SSuN jurisdictions; these estimates were compared to rates calculated using national case report data with unknown race/ethnicity redistributed by the proportion of known cases.

RESULTS

Of gonorrhea cases reported in SSuN jurisdictions in 2010 (N=68,700), 81% (55,637) were eligible for sampling. A random sample of 8,737 (15.7%) cases was drawn and interviews attempted. Participating jurisdictions successfully interviewed 3,471 patients for an overall interview completion rate of 39.7% (range 17 – 82%). Among cases reported in SSuN jurisdictions, 30% of initial case reports were missing race and 51% were missing Hispanic ethnicity. Among interviewed cases, race and/or Hispanic ethnicity was complete for 98.7%. Rates per 100,000 for Non-Hispanic Asians and Non-Hispanic Whites were comparable between SSuN estimates and NETSS cases with race redistributed (21.5 vs. 22.8 and 40.6 vs. 39.7, respectively). However, SSuN estimates for Non-Hispanic Blacks were lower (455.4 vs. 514.8 per 100,000) and higher for American Indian/Alaska Natives and Hispanics (102.4 vs. 52.7 and 73.3 vs. 61.2, respectively). Moreover, using SSuN estimates, relative ranking between groups changed. Native American/Alaska Natives ranked second in incidence behind Non-Hispanic Blacks whereas rates calculated using NETSS data place Hispanics second.

CONCLUSIONS:

Data from a random sample of cases may provide information to better estimate gonorrhea incidence rates by race and Hispanic ethnicity. While additional work is needed to improve interview completion rates and assess potential response bias in the STD Surveillance Network, these data may be invaluable for more accurately monitoring inequalities in disease burden by race and Hispanic ethnicity and serve as an evaluation tool for assessing the validity of routine case reporting.

POSTER PRESENTER

JOSHUA TOOTOO

University of Michigan

Abstract ID	1327297
Date/Time	June 4, 3:30 PM
Board Number	115
Title of Presentation	*Getting here from there: Examples of how state health departments are using GIS to address heart disease, stroke and other chronic diseases **
Committee	Chronic Disease/Maternal and Child Health/Oral Health Sub-Committee
Topic	Using Geographic Information Systems (GIS) for CD/MCH/OrH Epidemiology
Keywords	Chronic diseases | Geographic Information Systems | Communication

BACKGROUND

In recognition of the importance of geographic information systems (GIS) for the surveillance of heart disease, stroke and other chronic diseases, the US Centers for Disease Control and Prevention (CDC) in collaboration with the National Association of Chronic Disease Directors (NACDD), Duke University and the University of Michigan has developed a project to enhance the capacity of public health professionals in state health departments to integrate the use of GIS into ongoing daily operations that address existing priorities for heart disease, stroke and other chronic diseases.

METHODS

In 2011, the following five state health departments were competitively selected to participate in the GIS Surveillance Project for Heart Disease, Stroke and other Chronic Diseases: Idaho, Indiana, Louisiana, Maine and New York. During the course of this nine month project, four staff members from each of these state health departments learned key GIS techniques to use for public health surveillance of chronic diseases and produced maps that address existing chronic disease priorities within each state health department. The set of maps included in this poster were selected to highlight the breadth of GIS applications across groups.

RESULTS:

Together with extended GIS teams that the participants established in each state health department, the newly acquired GIS skills were used to produce maps that addressed one or more of the following themes: document geographic disparities in heart disease, stroke and other chronic diseases; inform policy and program decision making; enhance partnerships with outside organizations; and facilitate collaborations among chronic disease units within each state health department. We offer these highlights of the maps produced, along with information on how they were used, to illustrate their capacity for effective communication.

CONCLUSIONS

The maps of heart disease, stroke and other chronic diseases presented here highlight opportunities for state health departments to use GIS to address existing priorities in the prevention and treatment of heart disease, stroke and other chronic diseases. These examples offer a useful roadmap for other health departments interested in building this type of GIS institutional capacity. More work from participants in this GIS capacity building project, along with members of the broader community of health professionals using GIS to address chronic diseases, can be viewed on the Chronic Disease GIS Exchange: http://www.cdc.gov/dhdsp/maps/gisx/