

**Track: Community Water Fluoridation and Oral Health**

**Racial Differences in Decay and Mean DMFT Scores of Nevada Middle and High School Students Living in Fluoridated and Non-Fluoridated Communities**

Thursday, 1:15-2:45pm

Room 422

**Abstract**

Purpose: To assess racial differences in prevalence of untreated tooth decay and Mean DMFT indices among 3 cohorts of middle/high school students (ages 13-18) residing in a fluoridated (Clark County) and a non-fluoridated community (Washoe County) and all other counties combined (AOCC) in Nevada from 2001-2010. Methodology: Data were drawn from the 2001-2010 Crackdown on Cancer (CDOC) Oral Health Initiative. Trained/calibrated licensed dental examiners conducted oral health screenings on students in public/private middle/ high schools using dedicated mobile dental clinics. Results: A total of 71,768 middle/high school students (42,566 White, Non-Hispanic (WNH); 7,603 Black, Non-Hispanic (BNH); 21,599 Hispanic) were screened. Trends in untreated tooth decay and DMFT indices were similar in all cohorts, however significantly lower across all years and all racial groups in Clark than Washoe ( $p<0.05$ ) and AOCC counties ( $p<0.05$ ). While there were slight decreases in years 2-3, there were significant increases in year 4 across all racial groups except for WNH in AOCC. After a drop in year 5, all counties show little fluctuations in years 6-9. Conclusion: For each racial group, students residing in areas without community water fluoridation had significantly higher untreated tooth decay and DMFT indices than those living in areas with community water fluoridation. In each case (fluoridated/non-fluoridated counties), Hispanic students had the highest untreated tooth decay and mean DMFT indices, followed by BNH and WNH students respectively. Though fluoridated counties demonstrated lower incidence of tooth decay and DMFT indices, variances between racial groups may only be accounted for by other variables.

**Objectives/Solution:**

1. Discuss the risks vs. benefits of fluoride for students residing in areas of Nevada without community water fluoridation.

Educate the public in areas of Nevada without community water fluoridation on the benefits of water fluoridation.

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**Track: Community Water Fluoridation and Oral Health**

**Trends (2001 – 2010) in Untreated Decay & Mean DMFT Indices between 3 Cohorts of Adolescents Living in Fluoridated (Clark County) and Non-fluoridated (Washoe and 'All Other') Communities in Nevada**

Thursday, 1:15-2:45pm

Room 422

**Abstract**

Purpose: In 1992 in Nevada 2.1% of the population was served by fluoridated community water systems. In 2000, legislation required water fluoridation for communities of 100,000. In Jan 2011, the DHHS recommended lowering standards for water fluoridation systems because of a government study showing approximately 2 out of 5 adolescents presented with tooth streaking/spottiness due to fluoride exposure. This study analyzed trends in caries experience (DMFT indices and untreated tooth decay) among 3 Nevada adolescent cohorts(13-18 years of age) and the effect of water fluoridation over time on oral health indices. Methods: Trained/calibrated licensed dental examiners performed oral health screenings on >77,000 middle/high school students(49% males;51% females) in mobile dental clinics across 9 academic years(2001-2010) throughout Nevada. Untreated caries(d-score), caries experience(df-score), and decayed, missing and filled teeth(DMFT) indices were collected. Mean scores were computed by county across all years. Data were divided into 3 cohorts, 1 fluoridated (Clark County) and 2 not fluoridated (Washoe and 'all others combined counties (AOCC)). Results: DMFT scores in Clark decreased significantly since 2001 with a slight increase in 2007(p<0.05). Washoe was significantly higher than all other counties across all years(p<0.05). Trends were similar in caries experience and untreated tooth decay with Washoe having higher mean scores then Clark County and Clark seeing decreasing trends. Conclusion: Fluoridation may present oral health concerns, particularly among children, but trends in Nevada show that fluoridation can be an effective way to prevent tooth decay especially in areas with low natural concentration of fluoride in the drinking water.

**Objectives/Solution:**

1. Discuss historical progress and current status of water fluoridation in Nevada.
1. Raise the number of fluoridated community water systems in Nevada to optimal levels.

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**Track: Community Water Fluoridation and Oral Health**

**Gender Differences in Untreated Decay & Mean DMFT Scores among Adolescents 13-18 Years of Age Living in Fluoridated and Non-fluoridated Communities in Nevada**

Thursday, 1:15-2:45pm

Room 422

**Abstract**

Gender Differences in Untreated Decay & Mean DMFT Scores among Adolescents 13-18 Years of Age Living in Fluoridated and Non-fluoridated Communities in Nevada UNLV School of Dental Medicine

Purpose: To compare prevalence of untreated tooth decay and Mean DMFT Indices among 3 cohorts of boys and girls 13 to 18 years of age residing in a fluoridated (Clark County) and non-fluoridated community (Washoe County) and all other counties combined (AOCC) in Nevada from 2001-2010.

Methodology: Data from the 2001-2010 Crackdown on Cancer (CDOC) Oral Health Initiative collected by trained/calibrated licensed dental examiners conducting oral health screenings in public/private middle/high schools using dedicated mobile dental clinics were examined. Results: 71,583 adolescents (35,116 males; 36,652 females) were screened. Trends in untreated tooth decay and DMFT indices were similar in all cohorts, however significantly lower in Clark than Washoe ( $p < 0.05$ ) and AOCC counties ( $p < 0.01$ ). A significant decrease in year 2 ( $p < 0.05$ ) occurred, followed by a significant increase in year three (except for boys in AOCC). There were no significant differences by gender in untreated tooth decay within Clark county, however there were in Washoe ( $p < 0.05$ ) and AOCC ( $p < 0.05$ ). Between 2006 and 2009 all counties showed increasing trends in DMFT, with girls in Washoe and AOCC showing the largest increases ( $p < 0.01$ ). Gender differences were also noted in trend data for all ( $p < 0.05$ ).

Conclusion: Adolescents living in areas with optimally fluoridated community water systems had lower mean DMFT scores and less prevalence of untreated decay than adolescents living in non-fluoridated communities. Further analysis of data demonstrated a consistently higher mean DMFT score and untreated decay among females living in non-fluoridated areas. Gender differences in the fluoridated areas were not as significant for untreated decay. Word Count: 250 without the acknowledgement

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**Objectives/Solution:**

1. Increase knowledge and beliefs of the benefits of community water fluoridation
2. Create public health awareness of the importance of community water fluoridation in Nevada
3. Identify the groups most at risk for developing decay

Optimal levels of community water fluoridation can reduce the risk of developing decay, thus, demonstrating the importance of community water fluoridation in Nevada.

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**Track: Back to the Future of Public Health**

**Back to the Future of Public Health**

Thursday, 1:15-2:45pm

Ballroom AB

**Abstract**

This session will present trends in public health workforce development since the IOM's Future of Public Health Report was published nearly 25 years ago. It will examine advances in workforce development as well as opportunities to address persistent gaps. The session will challenge participants to think strategically about the development of a workforce that can thrive in today's environment of scarcity and uncertainty. It will get "back to basics" by examining core competencies that are tried and true as well as explore new opportunities to harness emerging skills and technologies. This highly interactive session will engage participants in an Appreciative Inquiry process to elicit their thoughts about the future of Nevada's public health workforce. In a time of budget cuts and doing more with less, this session aims to re-focus energy on positive solutions for the advancement of the public health profession.

**Objectives/Solution:**

- Identify at least two strategies to advance public health workforce development. - Understand the positive philosophy of Appreciative Inquiry and how it could be used as a method to assess needs or make improvements. - Recall at least one lesson learned from past workforce development efforts.

I propose the development and convening of a regional consortium of public health professionals who care, to advocate for, and guide workforce development in the Great Basin region (Utah and Nevada).

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**Track: Back to the Future of Public Health**  
**National Public Health Department Accreditation**

Thursday, 1:15-2:45pm  
Ballroom AB

**Abstract**

“Public health departments play a critical, but often unrecognized role in promoting and preserving the health of people in communities across the country. Despite the important role health departments play in our communities, there has not been a national system for ensuring their accountability and quality – until now.” - [www.phaboard.org](http://www.phaboard.org) This fall will see the first round of state, local and tribal public health departments applying for national public health department accreditation through the Public Health Accreditation Board (PHAB). The State Health Department and the three local health departments in Nevada (Carson City Health and Human Services, Southern Nevada Health District, and Washoe County Health District) are all planning on applying for accreditation sometime between this fall and the next couple years. The goal of public health department accreditation is to improve health outcomes by advancing the quality and performance of public health departments. The process provides a means for identifying opportunities for continuous quality improvement (CQI) and demonstrates a health department’s ability to deliver the three core functions and ten essential services of public health. This presentation will educate Nevada public health professionals on the background of PHAB and accreditation, the purpose and benefits of accreditation, how to get prepared, and steps of the accreditation process.

**Objectives/Solution:**

Recognize the three core functions and ten essential services of public health. Understand the general process of public health department accreditation.

Awareness of national public health department accreditation by public health professionals in Nevada will increase buy-in for the process and increase opportunities for health department improvement.

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**Track: Current Topics in Injury Prevention**

**Bystander Education: Bringing a Broader Community Perspective to Violence Prevention – Green Dot Model**

Thursday, 1:15-2:45pm

Room 423

**Abstract**

This presentation will discuss the approach of the Green Dot, etc. organization which was built on the premise that we can measurably and systematically reduce violence within any given community. Using the current research across disciplines, in combination with lessons learned from history, provides nearly all the necessary puzzle pieces to create a successful model of violence prevention. The primary mission of Green Dot, etc. is the reduction of power-based personal violence which recognizes the inextricable link between effective prevention and effective intervention. "A single choice in one moment of time to use your voice, actions or choices to make one small corner of the world safer."

**Objectives/Solution:**

1. Define the term "Green Dot." 2. Understand the scientific basis for the Green Dot model. 3. Identify bystander strategies for health care professionals to begin replacing moments of violence with moments of support and safety.

The Green Dot strategy is a comprehensive approach to violence prevention that capitalizes on the power of peer and cultural influence across all levels of the socio-ecological model. Informed by social change theory, the model targets all community members as potential bystanders, and seeks to engage them, through awareness, education, and skills-practice, in proactive behaviors that establish intolerance of violence as a norm, as well as reactive interventions in high-risk situations - resulting in the ultimate reduction of violence.

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**Track: Current Topics in Injury Prevention**

**The Effects of Noise on Human Health: Implications for Environmental Health**

Thursday, 1:15-2:45pm

Room 423

**Abstract**

Noise is increasingly being targeted as an environmental factor negatively impacting health. Psychological harm from noise exposure may manifest as increased physiological stress response, adverse social consequences, sleep disturbance and annoyance. Acute noise exposure has been shown to induce physiological responses such as increased blood pressure and heart rate. The purpose of this theoretical research paper was to explore and synthesize the literature on the effects of environmental noise and noise annoyance. Guski's (1999) conceptual model of non-auditory effects of environmental noise and noise annoyance was used to guide this research paper. The findings from the literature revealed that there is sufficient scientific evidence that noise exposure can induce hearing impairment, hypertension and heart disease, annoyance, sleep disturbance, and decreased academic performance. There appears to be a rise in hearing impairment among children, teenagers, and young adults, especially related to recreational noise exposure. Another finding of interest was that people with occupations associated with noise exposure are strongly associated with having less education. Further research addressing the factors influencing the level of noise annoyance may prove to be as important as reducing the actual noise exposure. How sounds can be used as measures of ecosystem health should be conducted. Finally, more research is needed on the effects of noise on children, and also the long-term effects of music headphone use.

**Objectives/Solution:**

Describe selected modifiable risk factors due to noise-induced hearing loss (NIHL).

Identifying education strategies to prevent noise-induced hearing loss will have important effects on the number of individuals who develop noise-induced hearing loss. Health educators and public health experts should encourage children and teens to use hearing protection devices. Also, hearing conservation programs should be administered in school-based settings.

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**Track: Current Topics in Injury Prevention**

**Analysis of Recreational Facilities at Lake Mead National Recreation Area, 2005-2010: Implications for Risk Management**

Thursday, 1:15-2:45pm

Room 423

**Abstract**

Injuries are a public health problem affecting local and traveling populations worldwide. Lake Mead is one of the most visited parks in the National Park System, welcoming about eight million visitors every year. In order to mitigate visitors' injuries at the park, LMNRA is interested in determining the burden of the problem. The purpose of this study was to analyze visitor injury data from 2005-2010. The study was guided by accident causation theories (Heinrich's Domino Theory, and Human Factors Theory). The specific research questions of the study were as follows: (1). What are the leading causes of fatalities at LMNRA? (2). What times (months/days/time of day) are fatalities more commonly occurring? (3). Which visitors (i.e. age, gender, and ethnicity) are more likely to be injured at LMNRA? Retrospective data for this study were retrieved from Park Incident Reports and processed through the Visitor Injury Data System (VIDS). Classifications within VIDS are based on definitions used by the Centers for Disease Control and Prevention's Web-based Injury Statistics Query and Reporting System for fatal and non-fatal incidents. Statistical Package for the Social Sciences was used to analyze the data. Descriptive analyses were performed using frequencies and cross-tabulations. Correlational analyses were conducted to examine the association between cause of injury, and age, weather conditions, consumption of alcohol, and use of personal floating devices. There were 158 reported fatal incidents over the period 2005-2010. Preliminary results indicate that drowning, natural causes, and motor vehicle accidents were the leading causes of fatalities.

**Objectives/Solution:**

1. Identify the trends and distribution of fatalities at Lake Mead.
2. Identify the factors contributing to the fatalities.
3. Appreciate and understand the importance of developing a risk management plan.

Develop specific prevention strategies that will minimize the incidence of accidents and the severity of injuries. This proposed solution can be accomplished by developing a risk management plan. A typical risk management plan has three phases: 1. Anticipating (identifying and assessing risks). 2. Planning (preparing for emergencies and contingencies). 3. Responding (developing strategies for dealing with accidents).

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**Track: Treatment and Prevention of Infectious Disease in Nevada**

**Another Perspective on Combating TB - From the Nevada Inpatient Hospital Discharge Data**

Thursday, 3:00-4:30pm

Room 423

**Abstract**

Tuberculosis (TB) was once a scourge that seemed undefeatable. According to the Centers for Disease Control and Prevention (CDC), "TB disease was once the leading cause of death in the United States." Then, with the development of effective treatments and public health capacity improvements, it seemed it would be vanquished. Although the United States has yet to achieve TB elimination, substantial and consistent gains in the reduction of TB have been realized; unfortunately, Nevada is not experiencing the same situation. In 2010, 114 Nevadans were diagnosed with TB. This number has been increasing, from 102 in 2007 and 2008, to 106 in 2009. The resurgence of TB is a challenge to public health in Nevada due to: drug resistant disease strains, a multitude of immunocompromising conditions, increased immigration from countries with a high prevalence of TB, and difficult economic times. To combat this scourge, public health professionals need to utilize every available tool. Another source of information in the battle against TB is the Nevada Inpatient Hospital Discharge Data (NIHDD). In 2010, there were 126 discharges of Nevada Residents with any diagnosis of TB. The total billed charges for these hospital stays were over 13 million dollars. Extensive information is available from the NIHDD for these visits, including patient demographics, billed charges, length of stay, payer source, and comorbidities. How can these data be utilized to show another perspective on TB in Nevada, reducing costs and improving health outcomes? The utility of the NIHDD for combating TB will be explored.

**Objectives/Solution:**

- Explain what information can be found about TB in NIHDD. • Discuss the utility and value of the NIHDD for combating TB; reducing costs, and improving health outcomes.
- Earlier identification and treatment of TB Cases to avoid hospitalization through enhanced provider education and testing. • Enhancement of information available in NIHDD to allow for linkage with other datasets containing TB information

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**Track: Treatment and Prevention of Infectious Disease in Nevada**  
**Statewide Population-Based Study on Access Barriers to Childhood Immunizations**

Thursday, 3:00-4:30pm  
Room 423

**Abstract**

Context: Nevada is routinely ranked in the lower tier of preschool immunizations compared to other states. Many factors contribute to sub-optimal vaccination rates and have been identified in literature. These factors include system level access, provider challenges, and parental beliefs. Objective To determine any barriers to acquiring vaccinations as reported by state residents using data from a special module from the Behavioral Risk Factor Surveillance System. Design, Setting, and Participants Multivariate logistic regression of survey responses. Interviews were conducted with 8870 Nevadan parents in 2007-2008. Main Outcome Measures Adjusted odds ratios of parents perceptions of having access barriers to childhood vaccinations Results Parents report access barriers to vaccinations. The parents with barriers were more likely to be female (AOR; 2.22, CI, 1.20 – 4.10;  $p < 0.05$ ), black (AOR, 2.89; CI, 1.07 – 7.82;  $p < 0.05$ ), have a household income of  $< \$35,000$  (AOR, 2.38; CI 1.24 – 4.57;  $p < 0.01$ ), and have a child aged between 0-3 years old (AOR, 2.10; CI 1.16-3.80;  $p < 0.05$ ). Grandparents that are caregivers had a protective factor on barriers to vaccinations (AOR, 0.12; CI 0.03-0.52;  $p = 0.004$ ). Other interesting results included the belief that it was too costly to see a physician (AOR, 3.27; CI 1.80-5.94;  $P < .001$ ) however there were no significant findings regarding healthcare coverage. Conclusion Immunization disparities are prevalent in Nevada. Cost is still a major barrier in the vaccinations of children. Awareness of cost-free programs will help address this need. Concerns about safety can be addressed with additional education on the importance of vaccines.

**Objectives/Solution:**

Acknowledge and identify the growing concerns and perceptions regarding vaccine accessibility for children in Nevada.

Promotion of awareness and education by practitioners and public health professionals of established cost-free programs for immunizations available to Nevadans.

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**Track: Treatment and Prevention of Infectious Disease in Nevada**

**Increasing Influenza Vaccination Rates in Southern Nevada: An Innovative Approach**

Thursday, 3:00-4:30pm

Room 423

**Abstract**

The Southern Nevada Health District (SNHD) Influenza Vaccination Program is a mass flu vaccination campaign to provide protection against the 2010/11 influenza virus with the goal of targeting priority groups and disparate populations. Targeting events with patient populations that are often forgotten or ignored has been the highlight of the SNHD influenza program's achievements. An astonishing unearthing of indecisiveness regarding inoculation was evident among the Asian community. During targeted Asian celebrations i.e., Chinese New Year, Korean Day, the University of Southern Nevada, College of Pharmacy Students and their professor assisted in the vaccination of these individuals. The student pharmacists were able to educate clients through translation in the following languages, i.e., Mandarin, Cantonese, Vietnamese, Cambodian and Korean. Having the ability to communicate in the patient's native language was a hallmark achievement. The influenza program conducted by the SNHD provided over 100 separate outreach clinics throughout the Las Vegas metropolitan area. Additional innovative ideas include: creating new community partnerships, increasing public awareness of SNHD services, and implementing cost saving measures. Outreach partners were recognized for their commitment in improving the overall health of Clark County residents and visitors by sponsoring these flu clinics. SNHD administered over 42,000 seasonal flu doses; the highest seasonal influenza vaccination rate in the past five years.

**Objectives/Solution:**

Improve public awareness and education concerning influenza immunization, i.e. reduce myths and misconceptions. Illustrate the importance of briefing and debriefing sessions for "strike teams". Identify innovative solutions to improve information flow and documentation regarding the administration of the 2010/11 influenza vaccination program. Identify actions and processes to improve the influenza vaccination program. Identify influenza vaccination program noteworthy practices or cost saving measures.

Improve Influenza vaccination rates among disparate populations.

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**Track: Mental and Physical Health Issues in Special Populations in Nevada**

**NSHE Student Veterans and the Impact of their War Injuries**

Thursday, 3:00-4:30pm

Ballroom AB

**Abstract**

Hundreds of thousands of veterans of the wars in Iraq and Afghanistan have used Post-9/11 G.I benefits to attend colleges, and many more are likely to do so as the U.S. continues to draw down its forces in Iraq and unemployment remains high. Given high rates of post-traumatic stress disorder (PTSD), depression, and traumatic brain injury (TBI) afflicting veterans, a substantial number of student veterans are likely to suffer from these combat-related disabilities, potentially interfering with successful completion of their college degrees. The purpose of this research is to report the prevalence of mental and physical health problems among student veterans in Nevada, to report the adequacy of the mental or physical health care they have received, and to assess the impact of disability and adequacy of health care on their contemporary experiences both in and outside of college. The analysis is based on survey data collected from 626 student veterans attending one of the seven Nevada System Higher Education (NSHE) campuses between 2009 and 2011. Students were asked about symptoms of PTSD and depression, TBI or other physical injuries sustained during active duty, and functional limits resulting from injuries. They also reported the adequacy of healthcare received, or why they had not received health care. We examine the impact of these factors on their academic success (GPA), subjective experiences on campus (e.g., sense of belonging vs. alienation), relationship strain and alcohol consumption. We conclude with social and health policy implications for NSHE, the VA, and the state of Nevada.

**Objectives/Solution:**

Describe the types of health issues that are typical of college student veterans, as well as the consequences of these health problems on their experiences in college and beyond.

One proposed solution to this public health problem is to develop a stronger relationship between the state VA and the state system of higher education to ensure that college student veterans receive the health care that they need and to which they are entitled.

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**Track: Mental and Physical Health Issues in Special Populations in Nevada**

**Chronic Disease and Risk Factors Among Nevadans with Disabilities: A 2009 BRFSS Study**

Thursday, 3:00-4:30pm

Ballroom AB

**Abstract**

Health disparities are defined as differences in access to health care, quality of health care and health outcomes (disease prevalence) observed between population-specific groups of people (Health Resources and Services Administration, 2000). Previous research has found that people with disabilities are more likely to have chronic diseases (coronary artery disease, stroke, cancer, asthma, diabetes), secondary conditions (high blood pressure, high cholesterol) and risk factors for chronic disease (physical inactivity and obesity) (Havercamp, Scandlin, Roth, 2004; Kinne, Patrick, Doyle, 2004; Nosek, Hughes, Petersen et al., 2006; Reichard, Stolzle, Fox, 2011). The purpose of this study was to conduct a secondary data analysis use data from the 2009 Behavioral Risk Factor Surveillance System (BRFSS) to determine differences in risk factors for chronic disease and chronic disease/ secondary conditions between adult with and without disabilities in Nevada. Nevadans with a disability were significantly more likely to report having chronic diseases (cancer, coronary artery disease, diabetes, stroke and asthma), to be physically inactive, and overweight/obese and to report high blood pressure and high cholesterol. As a way to eliminate chronic disease and secondary conditions among people with disabilities, Healthy People 2010 calls for all wellness and treatment facilities to be fully accessible for people with disabilities (US Department of Health and Human Service, 2002). More research is needed to determine is if inaccessibility of wellness and treatment facilities is contributing to health disparities found among people with disabilities in Nevada.

**Objectives/Solution:**

Identify health disparities experienced by people with disabilities with regard to chronic diseases, secondary conditions and risk factors

Ensure that all treatment and wellness facilities are accessible to people with disabilities as a means of reducing risk factors for chronic diseases.

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**Track: Mental and Physical Health Issues in Special Populations in Nevada**

**The Impact of Unemployment on Mental and Physical Health, Access to Health Care and Risk Behaviors**

Thursday, 3:00-4:30pm

Ballroom AB

**Abstract**

**Objectives.** To examine the impact of high unemployment rates on perceived health, access to health care, and health risk behaviors in Nevada. **Methods.** Self-reported data from Nevada's 2009 Behavioral Risk Factor Surveillance System (BRFSS) were analyzed (n=3,804). ANOVA, ANCOVA and multiple logistic regressions were utilized to compare perceived health, access to health care and health risks behaviors of participants who were unemployed to those who were employed and those who were voluntarily out of the labor force. **Results.** Unemployed participants were significantly more likely to have poorer perceived mental health scores when compared to employed participants and participants who were voluntarily out of the labor force (OLF) ( $p < 0.05$ ). Unemployed participants were four times more likely to not have access to health care coverage and two times more likely to delay health care services due to cost (AOR=4.05 95% CI 2.32-7.05). Contrary to previous findings, unemployed participants in this study were not more likely to binge drink, smoke or be physically inactive. **Conclusion.** Findings from this study suggest that the impetus for unemployment, be it voluntary or involuntary, may significantly impact a person's mental health. People who experience involuntary unemployment may be a targeted group needing preventive mental health services.

**Objectives/Solution:**

Identify the mental health impact of involuntary unemployment in Nevada

Target involuntarily unemployed people for mental health services

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**Track: Clinical and Preventive Health Service Topics**

**Self-Reported Responses to Medication Therapy Management Services for Older Adults: Analysis of a 5-year Program**

Thursday, 3:00-4:30pm

Room 422

**Abstract**

**BACKGROUND:** Medication therapy management (MTM) services provide essential reviews of drug regimens and are increasingly recognized as beneficial to patient safety, improved health outcomes, and cost savings. **OBJECTIVE:** To assess patient behavioral outcomes from MTM service including actions following receipt of a pharmacist report. **METHODS:** A retrospective analysis of an MTM program at the Sanford Center for Aging (Nevada, USA) was conducted. Outcome measures included whether the patient discussed the review with the physician, whether any changes in the client's drug regimen occurred, and whether the client feels more knowledgeable about his or her medications. Predictor variables included basic demographics, prescription insurance status, number of prescriptions taken, self-reported health status, and use of medications considered to be high-risk. The analysis plan involved the use of multivariate logistic regression models. **RESULTS:** The odds of discussing the medication review with physicians, making changes recommended in the report, and both discussing and making a change were 65%, 60%, and 67% lower among those below poverty level than among those above poverty level; 95% CIs [0.15, 0.80], [0.18, 0.85], and [0.15, 0.73], respectively. The odds of those using high-risk drugs of making changes in drug regimens, and of discussing with physicians and making changes together, were two times higher than the odds of those not using these drugs, 95% CIs [1.02, 4.31] and [1.20, 4.87], respectively. The likelihood of those reporting good or excellent health of doing the combination of discussing the MTM report with physicians and to make a drug regimen change was 2 times greater than for those reporting poor to fair health, 95% CI [1.08, 3.65]. Gender, ethnicity, age group, rural status, prescription drug insurance, and high polypharmacy were not significant factors for acting upon the medication review in the adjusted model. **CONCLUSION:** MTM services are associated with enhanced patient self-advocacy, but like other interventions, they are constrained by social disparities. Greater attention to the resources of target populations to respond to pharmacy services is merited.

**Objectives/Solution:**

Identify the public health perspective on medication therapy management services; understand the association between poverty status and utilization of health services like MTM.

Target populations need resources in order to most effectively utilize health services, such as patient advocacy and automatic follow-up. Upstream approaches that ameliorate income inequality would best improve health services.

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**Track: Clinical and Preventive Health Service Topics**

**Assessment of Communication Between Parents and Pediatricians in Regards to Newborn False-Positive Screens**

Thursday, 3:00-4:30pm

Room 422

**Abstract**

Background. In screening for metabolic disorders among newborn infants, false-positive results are of concern as they require more confirmatory tests, an increase in interaction with health care providers, and may possibly have negative implications related to parental stress and understanding about their infant's health (Tarini, 2007). The purpose of this study is to retrospectively examine parent-provider communication during the screening process, which will guide the development of educational materials and training, as well as support future legislation and the expansion of the Nevada Newborn Screening Program. Methods. Self-report surveys were administered to mothers via telephone and to health care providers online via SurveyMonkey®. Results. Although data was inconclusive, the need for future search in false-positive metabolic screening is needed in the state of Nevada, through gaps in education and the screening process. Conclusion. Findings from this study will contribute to the needs assessment of the Nevada Newborn Screening (NBS) Program and the development of educational materials for parents, providers, and NBS personnel. Not only was this one of the first studies nationwide to assess the communication between parents and pediatricians in regards to newborn false-positive screen but the first newborn screening study in the state of Nevada.

**Objectives/Solution:**

At the end of the session, participants should be able to identify gaps in communication between parents and providers in regards to newborn false-positive screens and be aware of areas for future research for the state of Nevada to improve healthcare for all infants.

Education should occur among pediatricians and family physicians to increase their awareness of the importance of communication with parents regarding to newborn false-positive screens. In addition to educating healthcare providers, the program should provide parental education prior to delivery, arming them with the knowledge to ask the appropriate questions about newborn screening. Future research will influence legislation that can be developed to ensure all infants and parents are given the education and resources necessary to address false-positive screens which will lead to overall improved healthcare through communication.

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**Track: Clinical and Preventive Health Service Topics**

**Exploring the Mental and Physical Benefits of a Fitness Program for Park Rangers at Lake Mead  
National Recreation Area**

Thursday, 3:00-4:30pm

Room 422

**Abstract**

The impact that personal fitness plans can have on Park Rangers may correlate strongly with the daily decisions they make. These decisions most often involve the public, whether the Ranger is conducting a search and rescue, routine traffic and boat stops, or engaged in an Emergency Medical Service call. This study is designed to investigate the importance of having a personal fitness program for Park Rangers to better service their health and mental capacity in conjunction with the public's well-being. The structural framework for this case study is derived from the Social Cognitive Theory with special focus on self and community efficacy. The physical variables to be measured include; 1. Bench Press; 2. Sit and Reach (flexibility); 3. Agility Run and; 4. One and a Half Mile Run. Other factors to be considered include; age, weight, and gender. Psychological measureables will be extracted using the Psychological General Well-Being Index (PGWBI). The comprised data will then be summarized using descriptive statistics. Understanding the physical and mental stressors Park Rangers encounter contributes to the health of the public by providing efficient, competent, and compassionate service for those who, while utilizing and enjoying Lake Mead, exhibit a need for assistance.

**Objectives/Solution:**

At the end of this session, participants should be able to understand how the physical and mental wellness of Park Rangers, who participate in personal fitness programs offered through the National Park Service at Lake Mead, benefits the public directly through an elevated level of service.

One solution to the public health problem being addressed is to implement a mandatory physical and mental wellness program for Park Rangers with the National Park Service at Lake Mead. This program would be monitored continuously to ensure the predetermined standards are being met.

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**Poster Session**

**Weight, BMI & Body Fat Characteristics of Women in Treatment for Substance Abuse**

Thursday, 4:30-5:30pm

Ballroom C

**Abstract**

Women increasingly report weight loss as a primary reason to use legal and illegal drugs. Many women in substance abuse treatment often report body image disturbances along with concern about their weight and weight gain is almost instantaneous when coming off of any drug. 330 female participants were recruited from substance abuse facilities to participate in a health program. At baseline, participants ranged from 18 to 64 years,  $\mu=33.37$  years,  $SD=10.01$ . BMI ranged from 17.5 to 47.0,  $\mu=28.53$ ,  $SD=6.22$ , which is in the OVERWEIGHT range. Similarly, body fat percentage ranged from 17.51 to 47.56,  $\mu=31.24$ ,  $SD=7.30$ , which is concern for UNSATISFACTORY HEALTH. Results indicated an increase in weight from when the individual stopped using (145 pounds,  $SD=36.57$ ) to when the intervention began (169 lbs) to post intervention (174 lbs). Similar results were observed in BMI: mean BMI of 24.6 (self-reported) when drug use stopped; 28.7 (6.30) at pre- intervention; and 29.5 (6.32) at post-intervention. Body fat (%) results also indicated significantly higher body fat after intervention. Maintaining weight during recovery is critical to the success of the individual. While women did gain a nominal amount of weight in treatment, results suggest that the weight gain trajectory was slowed significantly. Interventions may help curb the weight re-gain that is frequently associated with cessation of stimulant use. Women who participated in the program were able to identify a more realistic, ideal weight goal for themselves. This demonstrates that participants gained awareness and understanding of setting realistic weight goals for optimal health.

**Objectives/Solution:**

Some women turn to legal and illicit drug use to lose weight. Many substance abusers gain an unhealthy amount of weight when they eliminate , especially those who were stimulant users.

Health and nutrition education should be made available for clients in treatment for substance abuse dependence.

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**Poster Session**

**Positive Prevention Outcomes of an Experiential Nutrition Education Program for Families in Public Housing**

Thursday, 4:30-5:30pm

Ballroom C

**Abstract**

Obesity increases the risk for a number of diseases and decreases quality of life. The prevalence of childhood and adolescent obesity has increased rapidly in the last few decades, with low-income individuals at greatest risk, calling for a strategy to address the epidemic. Small Steps for Big Changes (SS4BC) is a nutrition education and physical activity program for youth and families implemented in Reno Housing Authority complexes and offered through the University of Nevada Cooperative Extension's 4-H Program in Washoe County. SS4BC has five main components: model healthy recipe preparation, limit sugars and fats, taste new fruits and vegetables (F&V), learn food groups, and promote physical activity in out-of-school hours. A pre-/post –test assessed change in knowledge, attitudes, and behaviors after completion of the 8-week intervention. McNemar tests and paired sample t-tests of first-time participants (N=52) yielded a statistically significant increase in the ability of children to identify seven of 14 given F&V, increased preference for one of 14 F&V, increased availability and accessibility of F&V on two of seven questions, and increased ability to identify all five food groups. Increased liking of F&V in general approached significance on one of five questions. No significant change was seen in children's willingness to taste new F&V. For the family behaviors questionnaire (N=32), there was a statistically significant increase in servings of vegetables and servings of fruit juice consumed daily. The study provides support that nutrition education can increase knowledge among children and improve eating behaviors for families in public housing.

**Objectives/Solution:**

Participants will gain a better understanding of the impact nutrition education can have in creating positive health behaviors that reduce childhood obesity and the importance of involving the family in order to create the greatest amount of change.

Reducing the incidence of childhood and adolescent obesity is best addressed through prevention efforts. Improving child and parent knowledge, attitudes, and skills for fruit, vegetables, whole grain, and low-fat dairy consumption through experiential nutrition education can have an impact on positive health behaviors. Future prevention efforts must continue to address the family unit as parents are the source of availability and accessibility to healthy foods and are the greatest source of modeling healthy behaviors.

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**Poster Session**

**Risk Factors for Checking Fire Alarms After Six Months: Who Continues to Check?**

Thursday, 4:30-5:30pm

Ballroom C

**Abstract**

House fires resulting in injuries and fatalities are a continuing cause for concern in the United States. In 2009, there were 377,000 residential fires reported, exacting a toll of 2,565 deaths, 13,050 injuries and 7.5 billion dollars in property damage. Additionally, the death rate from fires in the United States leads that of all other industrialized nations, and is the third leading cause of fatal home injury. Populations with certain risk factors such as low socio-economic status, children aged five and under or over 65, those who are physically or cognitively disabled and individuals who are impaired by alcohol or other drugs are at a greatly increased risk rate for fire death. Accidental household fires and their associated injuries are preventable with the proper equipment and training. Smoke alarms have proven to be an effective tool in the prevention of household fires because they are inexpensive, reliable, and easy to use. A household with a working fire alarm has a 50%-80% reduction of the risk of death due to residential fires. However, despite this ability to protect from fire, only about 75% of the households in the United States have functioning smoke alarms. Furthermore, households do not always check their fire alarm status at six month intervals as recommended. This poster presentation will display the variables for individuals and families who are the most at-risk of not checking their fire alarms at 6 month intervals.

**Objectives/Solution:**

identify the individuals or groups who are the least likely to do a six month checkup on their fire alarms to determine if the batteries are charged and to see if the fire alarm is still functioning.

The three variables with the greatest degree of correlation are: being ages 18-24, being Hispanic and Binge Drinking. This may result in at least 3 possible solutions: 1) to have volunteers assemble and test the fire alarms at 6 month intervals in order to determine their functionality 2) to have the instructions on the fire alarms be printed in English and Spanish 3) to have bilingual volunteers check in Hispanic neighborhoods to see if their fire alarms are working properly 4) basic education and checkups about fire alarms be taught at regular intervals in school (at least every two years) to ensure that the students understand how fire alarms work and also so that they understand the consequences of fires, including possible death and morbidity from fires.

**Author Information:**

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**Poster Session**

**Juvenile Justice System meets of ¡Cuidate! and Be Proud! Be Responsible!**

Thursday, 4:30-5:30pm

Ballroom C

**Abstract**

The Southern Nevada Health District (SNHD) has implemented two evidence-based programs that are endorsed by the Centers of Disease Control (CDC) -- ¡Cuidate! and Be Proud! Be Responsible! These two curricula are culturally sensitive programs that emphasize risk-reduction strategies related to sexual behaviors among the Hispanic/Latino and African American youth, respectively. The programs are designed to reinforce confidence in practicing safer sex, express reliable information about the risk of HIV/AIDS, develop attitudes that support safe decision-making, and foster skills in abstinence from sex. Implementations of the programs have previously been reproduced in schools and community settings; both have been measured as successful. The cultural and gender references through-out both programs address such things as behavioral and normative beliefs, and self-efficacy for HIV risk-reduction. Currently, SNHD is implementing, ¡Cuidate! and Be Proud! Be Responsible!, in the unique arenas of foster care, juvenile detention, and juvenile probation. Populations of said arenas represent the culture and male gender themes in both programs. Of the participants who have taken the program to date, 83.6% were African American or Hispanic/Latino with 68.4% male participation. The program is replicated for the prevention of sexually transmitted disease and the indirect lowering of teen pregnancy rates in the juvenile justice system as well as the foster care system. The pilot evaluation data indicates that participants have learned skills in safe decision-making as well as reliable information about the risk of HIV/AIDS in these settings.

**Objectives/Solution:**

- Describe objectives in both ¡Cuidate! and Be Proud! Be Responsible!
- Identify adaptation to match the needs of the juvenile justice system and foster care system
- Recognize preliminary result indications

In 2009, there were 3,701 teens placed in juvenile justice services. By partnering the program ¡Cuidate! and Be Proud! Be Responsible! with the juvenile justice system and foster care systems, SNHD is able to reach more of the at-risk youths in Clark County Nevada –decreasing STD transmission and teen-age birth rates.

**Author Information:**

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Intern for the Teen Pregnancy Prevention Program

**Poster Session**

**Risk Factors for Low Birth Weight and Preterm Birth in Southern Nevada**

Thursday, 4:30-5:30pm

Ballroom C

**Abstract**

Low birth weight ([LBW] 1,000 aggregate births was used to identify clusters of LBW and PB events. Spatial clusters were determined on the basis of hot/cold spot analysis and included as random effects in mixed-effect logistic regression to compute covariates-adjusted odds ratios (ORs) for LBW and PB. Controlling for individual covariates (gestational age, sex, maternal age, education, race, marital status, parity, type of delivery, adequacy of prenatal care, history of termination, clinical risk factors) and for spatial and temporal variations in birth outcomes, excessive risks for LBW and PB occurred among African Americans and were associated with maternal age ( $\geq 35$  yrs), previous LBW or PB, tobacco and alcohol use, and presence of selected maternal chronic/acute conditions. Infants born to women with chronic hypertension had a 1.8 (95% CI:1.4-2.2) times higher odds for LBW, and 3.3 (95% CI:2.8-3.8) times higher odds for PB. PB was also associated with lack of prenatal care (OR:2.6; CI:2.5-2.8) and was more prevalent among women with diabetes (OR:1.9; CI:1.7-2.1) and/or acute/chronic lung disease (OR:2.2; CI:1.8-2.6). Strategies addressing modifiable risk factors are needed to lower the prevalence of LBW and PB in the community.

**Objectives/Solution:**

Conduct systematic evaluations of factors associated these adverse birth outcomes across local populations.

At-risk populations need to have improved access to antenatal care and disease management.

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**Poster Session**

**Effects of the Master Settlement Agreement on Smoking Among Nevada Teens: A Decade After Implementation and Implications of Reduced Funding**

Thursday, 4:30-5:30pm

Ballroom C

**Abstract**

Purpose: Tobacco control programs that have adapted the Centers for Disease Control and Prevention (CDC) Best Practices for a Comprehensive Tobacco Control Program (CTCP) have been effective in reducing the rates of tobacco use. This paper investigates the effectiveness that Nevada's tobacco control programs have had on teen tobacco use and rates to date and examines changes to programs given reduced Master Settlement Agreement (MSA) funding. Methodology: Aggregate data from the Nevada Department of Health and Human Services/Fund for a Healthy Nevada program was analyzed to determine if the tobacco control programs adapted the CDC's Best Practices for a CTCP. The Best Practices are evidence-based measures that when implemented in optimally funded tobacco control programs have been shown to be effective in reducing tobacco use. Effectiveness in this presentation is measured as the rate of teen tobacco use. Results: The rates of teen tobacco use have declined steadily from the implementation of the MSA funded tobacco control programs. Statistical surveys documented that Nevada was ranked first for teen tobacco use in 2001 when MSA funded tobacco control programs were first implemented and 29th at the time the MSA funding was eliminated in June 2010. Findings also show that CTCP programs have reduced their target goals due to reduced funding. Conclusion: Rates of tobacco consumption among teenage youth have shown a steady decline in Nevada since the implementation of effective tobacco control programs, but future funding practices jeopardize ongoing success of the programs.

**Objectives/Solution:**

Understand how evaluation can be used as a tool to help form public policy.

Tracking reduction in smoking by youth in Nevada must be used to influence the effectiveness of programs.

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**Poster Session**

**Comparison of Girls Sports Participation in an Urban, Southwestern Community**

Thursday, 4:30-5:30pm

Ballroom C

**Abstract**

Previous studies have shown that participation in physical activity and sport is lower in girls than in boys (Kimm et al, 2002; Sabo & Veliz, 2008), decreases as students matriculate through high school (Pate et al, 2007; Sabo & Veliz, 2008) and is lower in Black and Hispanic girls (Kimm, et al, 2002; Harris, et al, 2006). The purpose of this study is to determine if there is a difference in self reported sports participation between genders, between girls in different ethnic groups and between girls grades 8 -11 in an urban community in the Southwest. Data collected for a 2009 Title IX interest survey was analyzed. Girls (N = 25,339) and boys (N= 24,493) completed the survey. Odds ratios, chi square and p values with an alpha of 0.05 were calculated. Girls were 18% ( $p < 0.001$ ) less like to participate in at least one sport compared to boys. Eighth grade girls were two times ( $p < 0.001$ ) more likely to participate in at least one sport than eleventh grade girls. Black girls were 44% ( $p < 0.001$ ) and Hispanic girls were 8% ( $p = 0.005$ ) more likely than expected to participate in at least on sport while White girls were 16% ( $p < 0.001$ ) less likely to participate in at least one sport than expected. Participation in specific sports varied significantly between ethnic groups. Although the results of gender and grade sports participation support previous studies, ethnic group participation differences do not. This study highlights the importance of sport as a source of physical activity in underserved groups.

**Objectives/Solution:**

Sport participation can be a vital source of physical activity for typically underserved groups of high school students.

Continued funding and support of high school sports in the district need to be considered priority, as sport can serve as a vital resource for physical activity in adolescences.

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**Poster Session**

**Health Disparities Experienced by Nevadans with Disabilities**

Thursday, 4:30-5:30pm

Ballroom C

**Abstract**

Health disparities are differences in access to health care, quality of health care and health outcomes observed between population-specific groups of people (1). Previous research has found that people with disabilities experience unequal access to preventative health care services. The purpose of this study was to conduct a secondary data analysis using data from the 2008 Behavioral Risk Factor Surveillance System (BRFSS) to determine differences in utilization of preventative health services between adult with and without disabilities in Nevada. Nevadans with disabilities were significantly more likely to have access to health insurance and to have seen a physician in the past year. Nevadans with disabilities were significantly more likely to engage in some preventative services (pneumonia and flu vaccination) and less likely to engage in other preventative services (pap in the past three years and dental cleaning in the past year). This may be the result of some preventative services being easily administered to patients whether they have disabilities or not (immunizations) while other preventative services are more difficult to administer to those with disabilities. Public health interventions are needed to address the unique needs of Nevadans with disabilities to ensure equal access to all recommended preventative health care services.

**Objectives/Solution:**

Identify differences in access to preventative health care services experienced by Nevadans with disabilities

Interventions to improve accessibility of all preventative health care services.

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Sheniz Moonie PhD

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**Track: Child and Adolescent Health Issues in Nevada**

**The Benefits of Process Evaluation in Public Health**

Friday, 10:30am-12:00pm

Room 423

**Abstract**

Anticipated outcomes in teen pregnancy prevention programs are often seen as poorly defined and measured. Valued program outcomes such as self-efficacy, risk reduction, and safer sex practices are not distinctly quantifiable. The actual health outcome of reduced birth rates may take many years to achieve and are dependent on multiple factors beyond the immediate intervention. Process monitoring and evaluation used empirical data to assess the delivery of programs and can assist in attributing causality to program intervention. The Southern Nevada Health District (SNHD) has completed the pilot phase of its new initiative to replicate two evidence-based programs, ¡Cuidate! and Be Proud! Be Responsible! Both curricula are approved by the Centers for Disease Control and Prevention Replication Process for Effective HIV Prevention Programs. Although ¡Cuidate! and Be Proud! Be Responsible! have been proven effective in school and community-based settings, SNHD's initiative is unique in that these programs will be implemented in juvenile detention, juvenile probation, and foster care settings. This presentation will provide an overview of SNHD's implementation of process monitoring and evaluation using measurable objectives. Preliminary process evaluation results from the pilot phase of the intervention will be discussed. The presentation will highlight lessons learned and how process monitoring and evaluation can be used to improve program performance.

**Objectives/Solution:**

- Define process evaluation and identify the correlation between process and performance outcomes.
- Understand the importance of process evaluation for sustainability and future funding of public health programs.
  
- More publishing and dissemination of evaluated public health programs to better serve Nevada's public health workforce and its stakeholders.

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**Track: Child and Adolescent Health Issues in Nevada**

**Evidence-Based Sexual Health Interventions Among High Risk Adolescents**

Friday, 10:30am-12:00pm

Room 422

**Abstract**

Southern Nevada Health District's (SNHD) Teen Pregnancy Prevention Program will present results measured from outcome data of its pilot program implemented in Clark County Juvenile Detention Center, Probation and Foster Care settings. In effort to reduce teen pregnancy and sexually transmitted infection rates by 10%, SNHD delivered two culturally appropriate evidence-based curricula to predominately Hispanic and African American high-risk youth ages 13-18 residing in seven target zip codes. Participants completed pre and post surveys to assess their sexual history; knowledge of HIV; and attitudes and behaviors about their intent to abstain from sex and use condoms. The results from the pre and post surveys were compared to the 2009 Nevada Youth Risk Behavior Survey (YRBS) data to measure any difference in reported behaviors of the SNHD's high risk target population compared to the general population surveyed in YRBS. Although results indicate an increase in knowledge to prevent HIV infection, there is a significant difference between youth surveyed by SNHD as being more susceptible to HIV infection compared to YRBS data. The breakout session will focus on preliminary results and findings measured from outcome evaluation relative to current data and efforts to improve public health initiatives.

**Objectives/Solution:**

Learning Objectives At the end of the presentation, participants should be able to: 1. Describe how sexual behaviors affect high risk youth on multiple levels, which is causative to their sexual health outcomes. 2. Explain how outcome monitoring and evaluation tools measure program effectiveness for evidence-based sexual health interventions presented to high risk adolescents.

Proposed Solutions 1. Collaborate with community partners to improve sustainability of resources for comprehensive sexual health education. 2. Provide comprehensive sex education for high risk adolescents to identify how their sexual behaviors affect personal risk and vulnerability to HIV infection.

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**Track: Child and Adolescent Health Issues in Nevada**

**A Feasibility Study of Healthy Smiles: Oral Health Education for Parents**

Friday, 10:30am-12:00pm

Room 422

**Abstract**

Purpose: To determine the feasibility of a program to increase level of knowledge and beliefs, as it relates to the oral health of children, among parents attending the Saturday Children's Clinic at the UNLV School of Dental Medicine. Methodology: Knowledge and beliefs were measured before and after a pilot with 20 participants who completed the Healthy Smiles: Oral Health Education for Parents Program (Healthy Smiles). IRB approval is pending before, a pre test including 16 questions regarding oral health knowledge, beliefs about nutrition, caries risk and development, and prevention strategies for reducing caries risk will be distributed prior to all future Healthy Smiles presentations. The oral health education program was presented to the participants, in English and Spanish, by trained dental students using an age appropriate Power Point presentation. A post test will be distributed following the oral hygiene workshop and again when the patient returns for follow-up dental care. Results: Healthy Smiles was offered to the parents (N=36) attending the Saturday Children's Clinics in March, May and June. The program was offered to community members (N=226) at WIC centers and health fairs. Participants were from varying socioeconomic classes, ages and race/ethnicities. Conclusion: Anticipated conclusions may show an increase in the knowledge and belief of the oral health needs of children. It is also projected that there will be a positive change in the behavior of the oral health regimen of the child as indicated by healthy gums and an absence in untreated decay. Word Count: 244

**Objectives/Solution:**

1. Increase knowledge and beliefs of oral health needs in children by offering individual presentations and personal attention.
2. Instill a positive behavior change in the oral health regimen of the participant's children through the use of the oral hygiene workshop.
3. Follow-up with knowledge, beliefs and behavior at each Saturday Children's Clinic.

Providing oral health education to parents when the children are young can change oral health beliefs, knowledge and behavior, thus, helping to reduce the incidence of decay and improving the quality of life of the children.

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**Track: Utilization of Data for Public Health Program Evaluation and Policy Development**

**The Effect of Low-Cost Incentives on Active Transportation to School Rates Among Elementary School Students**

Friday, 10:30am-12:00pm

Room 423

**Abstract**

This study assessed the effectiveness of a school-based active transportation to school (ATS) encouragement program for elementary school students. ATS shows promise for increasing physical activity and preventing excessive weight gain in children. ATS rates were assessed through frequency counts at the control school (N=697) and intervention school (N=693). The intervention encouraged ATS through the distribution of low-cost incentives on one weekday each week. It also required helmet use for participation and included a Walking School Bus component. Findings from this study suggest that the intervention effectively increased ATS on both intervention and non-intervention days.

**Objectives/Solution:**

Identify an effective method for increasing active transportation to school rates among elementary school students

Encouraging active transportation to school shows promise for increasing physical activity and preventing excessive weight gain in children.

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**Nevada Public Health Association Annual Conference Concurrent and Poster Session Abstracts**  
**Thursday, September 15 and Friday, September 16**

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**Track: Utilization of Data for Public Health Program Evaluation and Policy Development**

**Nevada Rural and Frontier Health Data Book**

Friday, 10:30am-12:00pm

Room 423

**Abstract**

Presentation of The Nevada Rural and Frontier Health Data Book. How to tell your story using the book: Why it is so challenging to find data, need for good data for grants and policy issues. Data sources, compendium and search criteria, application of data for use in GIS programs, presentation of 2010 census data.

**Objectives/Solution:**

Find data appropriate for their purposes.

Lack of knowledge to find available public health data resources specific to the state of Nevada and county level data.

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**Track: Utilization of Data for Public Health Program Evaluation and Policy Development**  
**Acute Lymphoblastic Leukemia and Infectious Disease: Using GIS and a Spatial Scan Statistic for Cluster Detection**

Friday, 10:30am-12:00pm  
Room 423

**Abstract**

Background: The etiology of acute lymphoblastic leukemia (ALL), especially the causes of an ALL cluster is not fully clear. The consequence of an abnormal response to a common or uncommon infection(s) is one of the hypotheses. Method: We examined the time-spatial patterning of the clusters of lymphoblastic leukemia diagnosed between 1990 and 2007 in comparison to the distribution of the clusters of infectious diseases (total 16 categories) corresponding to the same time period in three separate time scales, which are 1990-1996, 1997-2002, and 2003-2007. Results: From 1990 to 1996, no ALL or infectious disease cluster detected. From 1997 to 2002, 8 clusters of ALL were found in 11 counties, and 3 clusters of infectious diseases were found deriving from three subgroups, including other bacterial diseases, other diseases due to viruses and chlamydiae, and other infectious and parasitic diseases. From 2003 to 2007, 4 clusters of ALL were detected in 12 counties, and 55 clusters of infectious diseases were found deriving from 15 subgroups, including intestinal infectious diseases, tuberculosis, other bacterial diseases, human immunodeficiency virus (HIV) infection, poliomyelitis and other non-arthropod-borne viral diseases and prion diseases of central nervous system, viral diseases accompanied by exanthema, arthropod-borne viral diseases, other diseases due to viruses and chlamydiae, rickerrisoses and other arthropod-borne diseases, syphilis and other venereal diseases, other spirochetal diseases, mycoses, helminthiasis, other infectious and parasitic diseases, and late effects of infectious and parasitic diseases. Conclusion: The distribution and development trend of the clusters of ALL and infectious diseases over time are geographically close, suggest a possible association. Also, similar locations of the clusters of arthropod-borne viral diseases and rickerrisoses and other arthropod-borne diseases and ALL suggest that the vector-borne pathogen could be a significant drive for leukemia.

**Objectives/Solution:**

Understand how GIS could be used in investigating relationships between acute lymphoblastic leukemia and infectious diseases; Certain types of infectious diseases could be potential risk factors for ALL; The vector-borne pathogen could be a significant drive for leukemia.

Identify that certain infectious disease could be a possible risk factor of acute lymphoblastic leukemia;  
Identify that the vector-borne pathogen could be a significant drive for leukemia.

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**Late -Breaking Session: Tobacco-Free College Campuses in Nevada**

**Cost-Saving Analysis of Reduced Hospital Admissions for Acute Myocardial Infarction and Stroke after Implementation of a Nevada Statewide Partial Smoking Ban**

Friday, 1:00-2:30pm

Ballroom AB

**Abstract**

Objectives: One barrier to smoking ban legislation is the perception of loss business and tax revenues. We examined statewide hospital admissions for acute myocardial infarction (AMI) and stroke before and after the implementation of the “Nevada Clean Indoor Air Act”, a partial statewide smoking ban in Nevada and calculated the cost savings. Methods: We collected 4,219,799 Nevada hospital admission records between 1991 and 2009. Interrupted time-series regression was used to predict monthly hospital admissions after controlling statewide smoking rate and for seasonality. The cost savings were analyzed based on observed payer sources and the difference between observed and projected admission charges. Results: Statistically significant reductions in hospital admissions were seen for AMI and stroke after the implementation of the smoking ban resulting in an annual decrease in hospital charges of \$23.5 million for AMI (including 0.89 million Medicaid and 7.5 million Medicare as payers) and \$9.8 million charges for stroke (including 0.56 million Medicaid and 4.0 million Medicare as payers). Conclusions: Nevada’s partial statewide smoking ban decreased hospital admissions for AMI and stroke and significantly reduced state expenditures for healthcare.

**Objectives/Solution:**

Participants should be able to understand the smoking ban has decreased hospital admissions for AMI and stroke and significantly reduced state expenditures for healthcare.

Strengthen the smoking ban.

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**Late-Breaking Session: Tobacco-Free College Campuses in Nevada**

**Risk of Exposure to Second-Hand Smoke for Adolescents in Las Vegas Casinos: An Evaluation of the Nevada Clean Indoor Air Act**

Friday, 1:00-2:30pm

Ballroom AB

**Abstract**

**Objectives:** One barrier to smoking ban legislation is the perception of loss business and tax revenues. We examined statewide hospital admissions for acute myocardial infarction (AMI) and stroke before and after the implementation of the “Nevada Clean Indoor Air Act”, a partial statewide smoking ban in Nevada and calculated the cost savings.

**Methods:** We collected 4,216,027 Nevada hospital admission records between 1991 and 2009. Interrupted time-series regression was used to predict monthly hospital admissions after controlling for seasonality. The cost savings were analyzed based on observed payer sources and the difference between observed and projected admission charges.

**Results:** Statistically significant reductions in hospital admissions were seen for AMI and stroke after the implementation of the smoking ban resulting in an annual decrease in hospital charges of \$92.1 million for AMI (including 5.1 million Medicaid and 33.2 million Medicare as payers) and \$48.4 million charges for stroke (including 4.2 million Medicaid and 21.5 million Medicare as payers).

**Conclusions:** Nevada’s partial statewide smoking ban decreased hospital admissions for AMI and stroke and significantly reduced state expenditures for healthcare.

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**Late-Breaking Session: Tobacco-Free College Campuses in Nevada**

**Tobacco Free College Campuses in Nevada: Progress and Lessons Learned at UNLV, NSC, and CSN**

Friday, 1:00-2:30pm

Ballroom AB

**Abstract**

This presentation will provide attendees with current information on efforts undertaken by UNLV, Nevada State College, and the College of Southern Nevada to create tobacco free campuses. The goals of the session are to educate NPHA conference attendees on the importance of tobacco free campuses; encourage attendees to become involved with groups working on these efforts; and to empower all session attendees to begin asking campus leadership for tobacco free environments.

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