

TRUST FUND FOR PUBLIC HEALTH

2007 – 2008 Project Summaries

Area Health Education Center of Southern Nevada AHEC BodyWorks Project

Area Health Education of Southern Nevada (AHEC) is applying for Trust Fund for Public Health Resources to conduct the *BodyWorks Project*, a public health project focused on reducing obesity in women to prevent chronic disease. The overall goal of the project is to demonstrate the effectiveness of a public health education/intervention program to reduce risks for chronic disease in minority women due to obesity. The objective of the project is to influence the eating and exercise patterns of at least sixth overweight/obese women and their adolescent daughters per year through a ten-week intervention using an evidence-based *BodyWorks: A Toolkit for Healthy Girls and Strong Women* curriculum developed by the Federal Office on Women's Health. In addition to teaching in Clark County, in Year II trainings will be offered in Reno and Elko to further disseminate the BodyWorks curriculum.

The project will collect individual assessment and personal risk data for each participant at the initial and final sessions of the program to evaluate the impact of the project. Knowledge gains will be measured and tracked over time through use of pre/post tests and a 3 month follow up phone interview. Consumer satisfaction will be assessed through use of Program Evaluation forms designed to document knowledge gains as well as to assess overall project impact.

Communities in Schools (CIS) of Southern Nevada Communities in Schools Service Expansion to Rural Northeastern Nevada

Of the many factors that influence a child's health and wellness, access to the fundamentals such as good nutrition, primary health care, immunizations, oral health care and mental health services are critical. Communities in Schools (CIS) of Southern Nevada is part of a national organization that provides or facilitates services on-site to children in schools with economic, social or geographic disparities. This program has provided hundreds of backpacks full of food for hungry children in their WeekEND Hunger program, approximately 2,400 medical visits, funded dental care and is developing a mental health outreach program to strengthen school counseling resources. Since its inception in 2003 the program has expanded to serve eleven schools in Clark County and plans to add four more by the end of the school year. CIS of Southern Nevada has a solid track record of exceeding its commitments while expanding its resources to insure sustainability.

The CIS of Southern Nevada program wishes to expand this program and its services to rural northeastern Nevada to Elko, Humboldt, White Pine, Lander and Eureka counties, an area encompassing over 45,000 square miles. The program targets pre-K thru 12th

grade students, focusing on schools struggling with economic, social or geographic disparities. Many communities in rural or frontier Nevada are located in designated professional shortage areas. Thus, the format of importing services directly to the school campus would not only make accessibility easier for the families, but increase access to care for the community in general. This proposal requests assistance in making the expansion.

The work plan included in this proposal indicates that total services proposed over the two-year grant period include 6,200 units served in the WeekEND Hunger program, and 1,248 health care visits. More importantly, the infrastructure will be established to expand services and attract additional support to continue the program far beyond the end of the grant.

Family Resource Centers of Northeastern Nevada
Promotion of Resources for Elko/Rural Children with Special Health Care Needs

Promotion of Resources for Elko/Rural Children with Special Health Care Needs is a two-year expansion of an Elko outreach network and piloted materials distributed into outlying areas within Elko County. For Children with Special Health Care Needs (CSHCN) access to services is a regular necessity and delay of services negatively affects health outcomes for CSHCN. A group of parents and service providers concerned about the isolation of families and the misinformation or lack of communication prompted them to voluntarily produce a parent guidebook, a resource website, and a monthly communication network system. If funded, these piloted activities would be expanded to the rural CSHCN and their families within Elko County (Carlin, Wells, Wendover, Owyhee and Jackpot, plus the smaller communities/ranches found in the county).

Many local partners have contributed to developing and piloting the outreach network. The Elko Resources for Children website was designed by Great Basin Community College students and temporarily posted. A parent guidebook was developed and piloted in the prior year. Based on the feedback from parents and parent providers, the volunteer group has documentation for the need to promote and advertise the availability of the website, Family Resource Center services, and the guidebook to the isolated communities in Elko County.

The proposal requests \$42,863 in funding over the next two years to expand outreach of available services to CSHCN and their families residing in Elko County.

Lili Claire Foundation
Evaluating an Innovative Fetal Alcohol Syndrome Education Intervention: A Pilot Study

The Lili Claire Foundation is applying for a Trust Fund for Public Health grant to support our ongoing Fetal Alcohol Syndrome diagnostic clinics, to implement a pilot Fetal Alcohol Syndrome treatment intervention developed by Dr. Colleen Morris, our Medical Director, and lastly, to conduct research on the treatment intervention. This proposal is

responsible to the Trust Fund's interest in disease prevention – in this case secondary prevention – with a dual focus on the provision of direct health care services to children as well as research on issues related to public health.

Fetal Alcohol Spectrum Disorders are the main cause of birth defects, learning and behavior problems, and mental retardation in Nevada. The Nevada State Health Divisions' Maternal and Child Health Advisory Board recommends that "appropriate services for children and adults with FAS should be provided to ensure that people with FAS live full lives in their communities and to reduce their risk of themselves having children with FAS." Our proposed inter-related projects are responsive to this recommendation: Diagnostic evaluation of Fetal Alcohol Syndrome is the crucial first step toward ensuring that children with FAS gain full access to healthcare and educational services in the region. Secondly, piloting and conducting research on an innovative psychoeducational treatment program for children with FAS is the initial step in developing an effective intervention that has the potential to assist them to live fuller, healthier lives using secondary prevention measures.

S.A.F.E. House The Teen Council on Dating Violence

S.A.F.E. House is requesting funding for an innovative new program: *The Teen Council on Dating Violence*. This program addresses the Trust Fund for Public Health (TFPH) Priority Area: promotion of public health and programs for the prevention of disease or illness. Selected teens will learn to be advocates in their own schools and communities to: (1) increase awareness of unhealthy relationships, (2) decrease dating violence among teens, and (3) promote equality in relationships.

Since the highest rate per capita of intimate violence occurs among women ages 16 to 24 and 53% of victims of domestic violence were abused by a current or former boyfriend or girlfriend, this project will be implemented in Clark County School District high schools in order to target teens for both intervention and prevention, reaching over 70,000 teens per year.

This unique project will bring the critical message about dating violence to teens by teens. While teens will listen to their parents, teachers, coaches, and other trusted adults, we intuitively know they listen to what their peers have to say! There is no program like this in the State of Nevada and very few nationally, allowing it to be a replicable program model. The message that the Student Ambassadors on *The Teen Council on Dating Violence* will convey to their peers at their respective high schools will have a powerful impact on teens in their current relationships as well as to prevent them from entering into unhealthy relationships in the future.

Saint Mary's Foundation

Saint Mary's Oral Health as Prevention of Low Birthweight and Premature Births

With the proposal *Oral Health as Prevention of Low Birthweight and Premature Birth Project*, Saint Mary's primary focus will be Priority One: Promotion of public health and programs for the prevention of disease or illness. This application continues the activities initiated with the current 2006 TFPH grant.

Over the past two quarters, the project has grown and been refined and we have made some remarkable findings. Therefore, Saint Mary's is requesting funding to continue to provide and enhance oral health education, prophylaxis, root planning, general and advanced dentistry services to pregnant women participating in the Saint Mary's WIC program. The application provides research citations which show the increased potential low birth weight and preterm births as a result of poor oral hygiene and infections as well as the stellar findings from the current grant cycle (first two quarters). This proactive approach is prevention to children at its earliest stage.

We will provide the services described above to a minimum of 225 in Year One and 240 (pregnant WIC-eligible mothers) in Year Two. Following initial WIC certification and nutrition education, WIC staff make the first oral health appointment. They are referred to the oral health services and followed by a Case Manager as they are scheduled with the Dental Hygienist or Dentist for up to two visits. If there are restorative or specialty care needs, the woman will be scheduled with the Saint Mary's Restorative Program (the mobile oral health Take Care-A-Van), where a dentist will develop a plan and provide general dentistry services – keeping in mind the stage of fetal development and pregnancy.

The Case Manager will provide postnatal follow-up. Since the women and their newborns are enrolled WIC, tracking and outcome reporting of this project is more efficient and comprehensive. As an evaluation measure, birth outcomes are compared with like populations not receiving oral health services as a component of the WIC program.

University of Nevada, Reno, School of Medicine

Nevada Pregnancy and Diabetes Education Research Study

The University of Nevada School of Medicine (UNSOM), Department of Obstetrics and Gynecology, in Las Vegas is applying for Trust Fund for Public Health funding to conduct the *Nevada Pregnancy and Diabetes Education Research Study*, a unique public health research project to advance professional knowledge in the care of pregnant women with diabetes. Faculty physicians conduct over 5,000 deliveries annually for a primarily indigent population of urban, minority women seeking prenatal care and delivery at University Medical Center. Up to thirty-percent of these patients have diabetes or may become diabetic during pregnancy.

This patient oriented, treatment outcome study will compare pregnancy and birth outcomes in a random sample of 200 pregnant women with diabetes who will receive a structured early intervention program incorporating diabetes management education starting in the first trimester or not later than 16 weeks gestation, with a comparable population of pregnant diabetic women receiving standard prenatal care which currently does not address diabetes until 28 weeks of gestation. It is hypothesized that patient compliance will increase; pregnancy complications will be reduced; childbirth complications and maternal infection will be reduced; and, fetal and neonatal complications will be reduced, as a result of participation in the diabetes management education program. Diabetes intervention and education will be provided at each standard prenatal care visit. Data collection, analysis and reporting will include: (1) patient demographics and presenting health status; (2) blood glucose monitoring; (3) tracking of major complications of the mother and fetus; and (4) birth outcomes of newborns.

University of Nevada, Reno, School of Medicine
Nevada Advanced Life Support for Obstetrics Training Program

The University of Nevada, School of Medicine, Department of Family/Community Medicine in collaboration with the Department of Obstetrics/Gynecology, is applying for Trust Fund for Public Health funds to establish the *Nevada Advanced Life Support for Obstetrics Training Program (NvALSO)*, to focus on promotion of public health by providing a certified training program to prevent/manage medical emergencies in obstetrical care and delivery in Nevada. This internationally recognized program does not exist in Nevada, contributing to the lack of physicians/medical personnel in Nevada hospitals willing to deliver babies.

This public health promotion program will target family medicine physicians, obstetricians, nurse midwives, and obstetrical nurses in urban and rural Nevada hospitals who have not been certified as providers in ALSO. Developed in 1991 by physicians at the University of Wisconsin, this course is designed to help maternity care providers prepare for obstetrical emergencies. The American Academy of Family Physicians certifies the providers.

Proposed as a two year project, Year I will focus on certifying as ALSO providers up to 30 obstetrical healthcare providers in Nevada. Year II will be spent developing a cadre of at least 10 in-state certified instructors and certifying 50 additional ALSO providers. Objectives are to increase ALSO certified providers in Nevada and to create in-state certified ALSO instructors.

Evaluation efforts will track demographic data on the number/types of medical professionals who become certified ALSO providers and the number who become certified ALSO instructors including evaluations of ALSO courses over the period of the grant. The project has the potential to become self supporting through the collection of training fees.

University of Nevada, Reno, School of Medicine
Students to Seniors Connection for Health Information

The University of Nevada School of Medicine in collaboration with the Sanford Center for Aging proposes this *Students to Seniors Connection for Health Information (STSCHI)* project in order to reduce disparities in access to health information experienced by the rapidly growing senior population in the Washoe County area. The proposal aims to increase the comfort level of seniors in using the Internet; raise their awareness and use of beneficial health information resources; and develop a highly functional “one-stop-shopping” gateway service designed specifically for seniors. University and high school students, trained by professional staff, will then act as facilitators to guide seniors in using the Internet to access health information they can use to improve self management of their health issues and chronic diseases. Activities will take place in senior facilities in Washoe, Lyon, and Mineral Counties, and will include active living communities, rural and urban community senior centers, and an assisted living community. Outreach training and consultation at the sites will provide hands on tutoring and group demonstrations. A web gateway constructed to be responsive to the unique needs of seniors will help bridge the information gap by using a user-centered, troubleshooting approach to identify the most beneficial and credible resources. Sustainability of the project will be addressed by hosting tutorials and educational materials that augment and reinforce interventions by student trainers, and by creating a self-replenishing cadre of volunteer trainers. Participant evaluations of both seniors and students will be collected to assess perceived value of the program and any changes in attitudes towards health technologies and senior populations.

University of Nevada, Reno, School of Medicine
Preventing Osteoporosis among Nevada Women: A Randomized Clinical Trial of a Novel Physical Activity

One out of every two women over 50 will have an osteoporosis-related fracture in their lifetime. In Nevada, hospitalization due to osteoporosis fractures have doubled between 2000 and 2004, and this trend will continue to rise rapidly due to the aging of our population. To address this impending crisis, the Center for Bone Health at the University of Nevada School of Medicine proposes a community based, randomized controlled clinical trial to test the hypothesis that a novel, yet simple type of physical activity intervention will prevent or slow the progression of osteoporosis in postmenopausal women, while improving balance and aerobic endurance. In the past decade, Nevada has experienced a much faster “graying” rate than the rest of the nation: 72% in Nevada vs. 12% nationwide; the U.S. Census Bureau projects a continuation of this trend to year 2030. It is well established that physical activity is very important in maintaining bone strength; at least 30 minutes of brisk walking, at least 5 days/week, are recommended to help prevent osteoporosis. Nonetheless, only 3 in 10 adults achieve this goal. Finding new, shorter, but efficient physical activity interventions, which will have better adherence in population, has become the focus of clinical and public health

research in this area. We propose a new intervention called “marching-on-the-spot”, which is short (only 10 minutes daily, 5 days per week), easy to perform, and requires no specialized equipment. Importantly, “marching-on-the-spot” could be implemented in every-day clinical practice at very minimal cost to the health care system. To test our hypothesis that “marching-on-the-spot” will improve bone health among post menopausal women, we propose to enroll 300 Nevada women in a controlled trial conducted by an expert team of clinicians and researchers from the University of Nevada. The results of this study may not only benefit the health of Nevada women, but could have national impact. They may also secure future funding to UNR from the NIH and National Osteoporosis Foundation.

University of Nevada, Reno, School of Medicine
Center for Pediatric Immunodeficiencies

The University of Nevada, School of Medicine, Department of Pediatrics, is applying for Trust Fund for Public Health funds to establish the *Center for Pediatric Immunodeficiencies (CPI)*, to provide a comprehensive program of outreach, education and medical care and treatment of infants, children and adolescents with immune deficiency diseases. No such comprehensive pediatric programs currently exist in Nevada to address the needs of children and adolescents with primary and acquired immune deficiency diseases.

An immune deficiency disease occurs when one or more cells within the immune system do not operate properly, or the system is absent altogether. Some immune deficiency diseases are relatively common such as childhood disease like measles, mumps, etc. Others are extremely rare, and include: Primary immunodeficiencies affecting antibody levels (selective IgA deficiency and common variable immunodeficiency), complement deficiencies, T and B cell deficiencies, and congenital syndromes (DiGeorge syndrome); Auto Immune Diseases in which the body attacks itself; and Graft vs. Host Diseases including life-threatening reactions from tissue/organ transplantation. Acquired immunodeficiency includes HIV/AIDS which is seriously affecting infants in Nevada born to HIV positive mothers.

Project objectives include establishing the clinic to serve 100 children with Kids Healthcare in Las Vegas; conducting outreach and parent education for 100 parents, and evaluating program impact through medical assessments and the use of Consumer Satisfaction Surveys provided to 100% of participating families.

University of Nevada, Reno, Cooperative Extension
Evaluation of the Obeseogenic Built Environment in Nevada

With nearly 60% of the Nevada adult population considered overweight or obese (defined as body mass index $>25\text{kg/m}^2$), there is an urgent need to improve our understanding and develop effective interventions to abate the obesity epidemic. Merely viewing obesity as the consequence of an energy imbalance negates the interrelationships among the

multiple levels of influence (individual, family, community, public policy) and how these impact health. The relationship between built environment factors and health outcomes remains a subject of research. Previous studies have focus primarily on identification of the aspects of the built environment (i.e. the roads, sidewalks, food sources, and recreational facilities) related to physical activity (PA) level or the availability and access to healthy foods. No study has examined the association of both the PA and food environment attributes to health outcomes such as obesity and included potential confounding community social economic and demographic characteristics (i.e. racial distribution, poverty rate, or urban vs. rural distinction). The proposed study population will be 2007 Nevada Behavioral Risk Factor Surveillance System (BRFSS) respondents. The BRFSS offers behavioral data within a diverse sample of adult Nevada residents. The built environment attributes within each subject's neighborhood will be mapping utilizing Global Information Systems (GIS) technology. GIS allows patterns between individual-level behaviors and community-based built environment and social attributes to be visualized and analyzed through map layers and statistical analyses. Findings will serve to guide state and local government policymakers in developing sustainable healthier communities by promoting health behavior change. Findings will also identify high-risk Nevada communities based on an obeseogenic built environment rating system.

University of Nevada, Reno

Effectiveness of Nevada Clean Indoor Air Act (NCIAA)

Secondhand smoke (“SHS”) is a known carcinogen that causes heart disease and lung cancer in non-smoking adults, and sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, and asthma attacks in children. In response to a growing concern about the adverse health effects of SHS, the Nevada Clean Indoor Air Act (“NCIAA”) was passed in December 2006 to protect children and families from secondhand smoke in most public places. However, passage of a no-smoking law may not be sufficient to ensure compliance, and compliance with the Act is directly related to reduction in exposure to SHS. Information about factors affecting compliance with the NCIAA would be helpful to public health personnel in allocating resources for educational and enforcement efforts. The primary purpose of the proposed study is to identify predictors of and barriers to compliance with the NCIAA. A secondary purpose will be to determine whether compliance with the Act influences levels of benzene in public places where children may be present. Benzene is a carcinogenic constituent of tobacco smoke that can be used as a marker of exposure of SHS. The proposed study will be conducted in Washoe County, focusing on businesses located in the cities of Reno, Sparks, and Incline Village (“the study area”). Approximately 30,000 businesses in the study area are affected by the NCIAA and are targeted in this study. Direct observation and interviews will be used to collect information about compliance with the NCIAA at the start of the study period and one year later. Measures of compliance recorded at these two time points will be compared to determine if compliance status has changed during the year. Passive monitors will be worn by study staff at the two time points, for measurement and comparison of benzene concentrations. Additional information about the businesses will be used to identify factors related to compliance with the NCIAA.

University of Nevada, Reno

A Comparison of Interventions to Promote Exercise in Patients Presenting to UNR Student Health and Family Medicine Clinics

While prevalence of obesity (OB) + overweight (OW) has generally increased nationwide across all age groups, the 18-24 group has seen the highest percent increase in obesity over the past 5 years. Study *goals* are to: 1) Measure the prevalence of OB + OW in patients presenting to the Student Health Center (SHC) and the Family Medicine Center (FMC) at the University of Nevada, Reno (UNR), and 2) Investigate if either brief advice from a physician or a metabolically determined exercise program can help OW and OB patients lose weight. *Methods*: During year 1, students presenting to UNR SHC will be asked to participate in the study. During year 2, patients presenting to UNR FMC will be invited to participate. On intake, patients fill out a brief health questionnaire and will have body mass index (BMI; kg/m²) calculated from height and weight. Patients with a BMI greater than 25 will be randomized into one of three treatment arms: a) No counseling (**control group;CTL**), b) Brief physician advice and handout (**BA**), similar to what normally occurs in student health or family medicine center patient counseling, and c) A twelve-week metabolically determined exercise program based on data from maximal oxygen intake (VO₂ max) testing (**SP**). *Outcomes*: Baseline data on weight and BMI along with current activity level will be collected on all patients. Patients in BA and SP groups will also undergo VO₂ max testing and body fat testing. At three months, and again at six months after enrollment, we will re-measure weight, BMI and physical activity level in all groups, and retest body fat and VO₂ max in the BA and SP groups. *Sustainability*: Intervention capacity will continue at UNR FMC, and overall study results will be assessed with regard to dissemination and expansion of the intervention approach to other clinics statewide in order to assist Nevada's primary care physicians in their efforts to combat obesity.

University of Nevada, Reno

Near-Lethal Suicide Attempts: Analysis and Recommendations

We propose to study the causes of suicide among people age 18 and above in Northern Nevada. Our project will constitute research on issues related to public health. Suicide is a public health problem that has serious consequences for the residents of Nevada, where the suicide rate was 18 per 100,000 in 2004, the third highest in the nation. Suicide can be very difficult to predict and prevent. Many studies have profiled the characteristics of suicide attempters and completers, but no study of which we are aware collected an in-depth profile of the types of circumstances and thought processes that lead individuals to attempt suicide. We propose to ask patients who are being treated after having survived a suicide attempt to tell us in their own words what led to their attempt. We argue that narrative data will be a critically important supplement to what is already known and will greatly improve upon our ability to predict and prevent suicide.

Our interviews with survivors of suicide attempts will include standardized, quantifiable information known to be related to the likelihood of suicide. We will also ask respondents to describe, in their own words, the circumstances that led to their suicide attempt, why they attempted suicide, how they feel about having survived their attempt, what they think about stigma, and what they believe might have prevented their actions.

The quantitative data will be tabulated to describe the sample and to compare near-lethal suicide attempts with all others. Existing research suggests that survivors of near-lethal suicide attempts are very similar to suicide completers. By interviewing survivors of near-lethal suicide attempts, and by comparing them with people whose attempts were unlikely to be fatal, we hope to learn more about the specific circumstances in which a suicide attempt results in death.

The narrative transcriptions from the interviews with all suicide attempters will be analyzed with qualitative comparative analysis to derive themes that correspond to the five content areas described above. The results will indicate the particular combinations of circumstances and thought processes, in conjunction with other known correlates of suicide, that are most likely to precede a successful suicide attempt.