



CENTER FOR
PUBLIC HEALTH PRACTICE

Public Health Practice Experience
Poster Presentation Session

Abstracts

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Title of Project: BACKGROUND STUDY FOR DEVELOPMENT OF A FARMERS' MARKET POLICY

Student Name: Woldu Ameneshoa

Academic Advisor and Department: Terrance Gratton, PhD., Environmental and Occupational Health Sciences

Site Supervisor and Location: Sandra Long, Plano Health Department

Introduction: There has been a significant increase in number of Farmers' Markets in the U.S. since the enactment of Farmer-to-Consumer Direct Marketing Act of 1976. This trend is driven by the rising demand for farm fresh products. In conformity with the national trend, recent survey indicates that there is a high interest in Farmers' Market in Plano. Hence, the City is currently exploring the possibility of establishing a new Farmers' Market. As part of this endeavor, Plano Health Department is working to formulate a new Farmers' Market ordinance intended to guide operations of a market while ensuring food safety. Therefore, this background study is aimed at identifying critical issues and components that need to be incorporated in the new ordinance.

Methods: The study is primarily based on literature review and site visit. It is comprised of four components. Assessment of potential environmental public health threats, review of foodborne disease outbreaks, study of existing Farmers' Markets, and identification of relevant regulations. Operations, structures and management of 18 North Texas Farmers' Markets were investigated.

Results: Sources of potential public health risks and some Farmers' Market related foodborne disease incidences have been identified. Study of the local markets shows that all of the markets offer fresh fruits and vegetables; 85% feature meats and poultry; 80 % value-added products, while only 30% offer seafood. Although the markets show striking similarity in their operations, 4 different types of organizational structures were observed. On the other hand, 5 National regulations, 8 State regulations, and several local ordinances were identified to be relevant in the establishment of a Farmers' Market in Plano.

Conclusion: A number of policy issues that require decision making by the City and Health Department have been identified. The most important ones are concerning product mix, market location, organizational structure, management and indemnity.

Title of Project: ORAL HEALTH IMPROVEMENTS UPON IMPLEMENTATION OF AN IMPROVED TRACKING SYSTEM

Student Name: Brian Benson

Academic Advisor and Department: Nuha Lackan, PhD., Health Management and Policy

Site Supervisor and Location: Jamie Burton, DDS, Bear Creek Family Dentistry

Introduction: Bear Creek Family Dentistry is a locally owned and operated practice with seven locations throughout the Dallas/Fort Worth area. Bear Creek sees nearly 1500 patients each week; 90% of which are under the age of 18 and utilize Medicaid as a means of receiving dental care. Bear Creek strives to provide not only dental care but to be a part of the communities they serve.

Methods/Discussion: Since 2007, Bear Creek has noted that patients were coming in for dental problems that had previously been addressed during prior visits but due to the length of time between visits; these oral health problems were recurring at a significant rate. Bear Creek devised a more efficient plan to contact patients, reminding them of their six-month check up. A brief questionnaire was developed in order to determine if the patient felt that his/her oral health was improving with regular dental visits versus patients who had only been seen once or less during the previous twelve months.

Results: Of the patients who were seen at least twice per year, nearly 90% reported having fewer oral health issues. Of the patients who had only seen a dentist one time or less during the previous twelve months, only 30% reported having fewer oral health issues.

Conclusion: Bear Creek has recorded a decrease in the number of visits made for previously addressed dental issues which is attributed to more efficiently contacting patients regarding their upcoming appointment(s). Bear Creek has also noted that overall dental health of those who reported seeing the dentist on a more consistent basis has vastly improved. Although there are mitigating factors, which have the ability to slightly skew the data; it remains a positive sign that more desirable patient outcomes are directly related to the efforts put in place by Bear Creek.

Title of Project: EFFICACY EVALUATION OF TRETINOIN GEL VERSUS TRETINOIN GEL VEHICLE IN THE TREATMENT OF MILD TO MODERATE ACNE VULGARIS

Student Name: Lee Ryan Ermis

Academic Advisor and Department: Swati Biswas, PhD., Biostatistics

Site Supervisor and Location: Bert Slade, MD, Healthpoint Ltd.

Introduction: *Acne vulgaris* is a common human skin disorder characterized by areas of skin with multiple inflammatory and non-inflammatory follicular papules, pustules, and nodules. Retinoids are vitamin A derivatives used to treat acne. Tretinoin is the acid form of vitamin A. The purpose of this study was to determine if Tretinoin Gel, 0.05% is superior to Tretinoin Gel Vehicle in the treatment of mild to moderate *acne vulgaris*. Tretinoin Gel Vehicle does not contain the active ingredient tretinoin.

Methods/Discussion: This study was a phase III, multi-center, investigator-blinded, randomized, 2-arm trial. Subjects were dosed topically, once daily, prior to bedtime. Subjects were seen at baseline and weeks 1, 2, 4, 8, and 12. Subjects were evaluated for inflammatory and non-inflammatory lesion count. Primary efficacy variables were the absolute reduction from baseline in lesions at week 12. Least squares means from an ANOVA with factors of treatment and analysis center were used to determine the mean absolute change. The data was tested for normality using Wilks-Shapiro test. A P-value of <0.01 indicated that the data was not normally distributed, so the absolute change in lesion counts were rank transformed and submitted to an ANOVA with factors of treatment and analysis center.

Results: Sample size of the treatment group was 299, and 302 for the control group. The least squares means for the absolute change in inflammatory lesions was 6.5 versus 3.5 for the Tretinoin Gel and its vehicle ($P=0.001$). The least squares means for the absolute change in non-inflammatory lesions was 17.8 versus 9.9 for the Tretinoin Gel and its vehicle ($P<0.001$).

Conclusion: Tretinoin Gel, 0.05% was statistically superior to Tretinoin Gel Vehicle in the absolute reduction from baseline to week 12 in inflammatory and non-inflammatory lesion counts.

**Title of Project: URANIUM EXPOSURE: A MEDICAL DISCUSSION FOR THE
HEALTHCARE COMMUNITY**

Student Name: Stacy Koberlein Harper

**Academic Advisor and Department: Sue Lurie, Ph.D., Department of Social and
Behavioral Science**

**Site Supervisor and Location: Princess Jackson, Ph.D., Health Resources and Services
Administration - Office of Regional Operations**

Introduction: In New Mexico and Arizona, uranium is highly concentrated underground. In its natural form, it does not affect the people who live on the surface because other natural geological formations such as rock act as a barrier to the dangerous health effects of uranium. In the early 1900s, it was common for men to work in uranium mines. By the 1950s, studies revealed a relationship between uranium exposure and lung cancer. Today, the mines are closed due to health risks, but hazardous effects of uranium mining remain. At the request of the New Mexico Department of Health, courses were facilitated on the topic of uranium within areas of New Mexico and Arizona. The purpose of the sessions was to increase awareness and expand the knowledge of medical providers about uranium exposure.

Methods/Discussion: Participants filled out a questionnaire regarding the quality of the educational session. A likert scale was utilized to capture average scores of participant opinions at all three presentations. Six questions of the evaluation required qualitative feedback. The qualitative data was analyzed by comparing common themes. Themes were categorized as positive, negative, or neutral.

Results: The results of the program evaluations were considered excellent with an overall score of 4.3 out of 5.0. Prior to attending the educational sessions, the overall average score for knowledge was 2.8. After attending the educational sessions, the overall score for knowledge increased to 3.8. The qualitative feedback indicates that many participants are planning to conduct community outreach programs and begin educating their patients. Moreover, future presentations can address questions raised by the audience.

Conclusion: The results indicate the sessions were successful and benefited the participants. The quantitative and qualitative feedback reveals the audience gained knowledge. This could lead to improved patient care of tribal communities impacted and affected by uranium exposure.

Title of Project: THE EFFECTS OF SOCIAL-EMOTIONAL SUPPORT, MENTAL DISTRESS, AND LIFE SATISFACTION ON ANNUAL CHECKUP UTILIZATION AMONG WOMEN OF REPRODUCTIVE AGE – BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM SURVEY, U.S., 2009

Student Name: Michelle Kazi

Academic Advisor and Department: Kathryn Cardarelli, Epidemiology

Site Supervisor and Location: Donald Hayes, Hawaii State Department of Health

Introduction/Background: Mental distress and a lack of social support have been shown to increase participation in health risk behaviors and have negative effects on general health. Screening for these outcomes through an annual examination can improve overall health. The objective of this project was to determine if reproductive aged women with limited social and emotional support, low life satisfaction, or decreased mental health are less likely to have visited a doctor for a routine physical within the past year.

Methods/Discussion: The Behavioral Risk Factor Surveillance System, a population-based telephone survey of health behaviors, was analyzed among 67,730 reproductive aged women in the United States in 2009. Prevalence rates were calculated for social-emotional support, mental health, and life satisfaction. Multivariable logistic regression was used to calculate odds of not having been to the doctor within the past year for a routine physical examination. Models were adjusted for age, race, income, and health insurance.

Results: 33.7% (95%CI: 33.0-34.4) of women aged 18 to 44 had not been to the doctor within the past year for a routine physical. Factors associated with not having an annual screening included: limited (AOR=1.3, 95%CI: 1.2-1.4) and no (AOR=1.6, 95%CI: 1.5-1.8) social support; limited (AOR=1.4, 95%CI: 1.3-1.5) or no life satisfaction (AOR=1.7, 95%CI: 1.4-1.9); and frequent mental distress (AOR=1.2, 95%CI: 1.1-1.3). Additional differences were seen by race and age. Demographic groups least likely to have had an annual screening include White women (AOR=2.5, 95%CI: 2.2-2.8) and women 25-29 (AOR=1.4, 95%CI: 1.2, 1.5).

Conclusions: Women who experience mental distress, less social support, and less life satisfaction are less likely to have gone to the doctor for a routine physical within the past year. Further research is necessary to examine the factors that influence the social-emotional and mental health of these women and identify target groups for intervention.

**Title of Project: ACTIVITIES AT THE OFFICE OF POPULATION MEDICINE-
PARKLAND HEALTH AND HOSPITAL SYSTEM**

Student Name: Supriya Kirpalani

Academic Advisor and Department: Kathryn Cardarelli, PhD, MPH, Department of Epidemiology

Site Supervisor and Location: Brad Walsh, MPH, Office of Population Medicine, Parkland Health and Hospital System, Dallas Texas

Introduction: Parkland Health and Hospital System is a specialized organization with its unique ideology towards taking responsibility for community health. This practicum involved the application of several public health principles to conduct research and evaluate health services in order to introduce and improve the health care services.

Methods/Discussion: Duties at the Internship site involved application of diverse data management skills that included data cleaning, data abstraction, coding-recoding, quality checks, data organization, and statistical analysis. I had a chance to work on 3 Major projects in operation at the Office of Strategic Planning and Population Medicine. These are, 1) Phase II data analysis for the Perinatal Periods of Risk (PPOR) which is conducting research on infant mortality. 2) Developing the benchmarks for Dallas County Needs Assessment 2010 and 3) Parkland Patient Satisfaction survey custom sorting of patient comments by departments.

Results: The department serves as the Epidemiologic arm for leadership at Parkland to understand the needs of the community and prioritize funding by identifying high need areas. The practicum was an amalgamation of constant multi tasking and team work. It is a great working experience where I learnt how real world data is no ideal textbook scenario and how one handles data issues to produce quality results that can be used for health policy development in an efficient manner.

Conclusion: Dallas County's population is benefiting from the health care services supplied by PHHS especially the low income groups and high acuity needs groups. PHHS simultaneously focuses on preventative care and caters to migrating populations. This department reinforces the competency vision of PHHS management to impact the Dallas county community's health with constant evaluation and expansion. The results provided through research here serve as a skeleton around which the funding and grant proposals are built to achieve optimum health goals.

Title of Project: OPPORTUNITIES FOR CULTURALLY RELEVANT, EVIDENCE BASED INTERVENTIONS FOR THE AFRICAN AMERICAN POPULATION OF TARRANT COUNTY THROUGH AIDS OUTREACH CENTER

Student Name: Shaharah Kirven

Academic Advisor and Department: Dr. Sue Lurie, PhD, Department of Social and Behavioral Sciences

Site Supervisor and Location: Shannon Hilgart, AIDS Outreach Center

Introduction: HIV/AIDS rates among African Americans in Tarrant County are more than four times higher than those among Whites and Hispanics. As the leading HIV/AIDS agency, community-based, social-service organization, AIDS Outreach Center (AOC), is uniquely positioned to have significant impact on decreasing the incidence of HIV within the African-American population of Tarrant County and the other surrounding areas that it serves through the implementation of evidence based interventions.

Discussion: African Americans comprise 42% of AOC's client base. Areas within the organization that currently allow interaction with high risk minority populations mainly include the African-American support group, Sista-to-Sista, which provides vast insight into cultural and behavioral patterns of interaction within the African-American community. Other opportunities to intermingle with priority populations include HIV 101 education classes that teach the basics of HIV, and outreach/prevention activities that include health fairs, HIV/Syphilis testing of residents at apartment complexes in areas identified as high risk, and visiting the homes of patients that are not receiving medical care.

Results: While AOC offers many services for HIV positive individuals, comprehensive prevention programs targeted at minorities are crucial. Currently, there remains ongoing research to implement culturally relevant, evidence based interventions that will target the high risk African-American populations of heterosexual women and men; youth and young adults aged 13-25, and men who have sex with men (MSM).

Conclusion: AOC is one of the most frequently used non-medical referral sites for more than 1700 individuals living with HIV/AIDS, and is a key determinant to engaging community partners and stakeholders in Tarrant County's effort to decrease transmission. Future organizational efforts should include a systematic approach to help the agency identify the most appropriate interventions for targeted populations and funding opportunities for prevention programs, along with the organizations' ability to monitor the process, and evaluate the outcomes.

Title of Project: A CROSS-SECTIONAL PILOT STUDY ON VITAMIN D DEFICIENCY AMONG ASIAN INDIANS IN NORTH TEXAS

Student Name: Jayakrishna Kumar Kurada

Academic Advisor and Department: Swati Biswas, PhD, Department of Biostatistics

Site Supervisor and Location: Anna Espinoza, MD, Primary Care Research Institute

Introduction: The study aims to determine the association between vitamin D levels and hypertension as well as vitamin D levels and insulin resistance among Asian Indians in North Texas. The study also aims at determining the risk factors that contribute to Vitamin D deficiency among Asian Indians in North Texas.

Study Design and Methods: This cross-sectional study will recruit a target sample of 50 subjects from the UNTHSC community and the general public. Study visit includes completing a behavioral survey with clinical assessment and a blood drawing. Participants are dichotomized into 2 groups- Group1: hypertension and Group2: no hypertension. The laboratory results will be analyzed for investigating any relationship to clinical blood pressure and insulin resistance. Other major variables collected include age, gender, B.M.I., and body fat. Preliminary data analysis was run with SPSS.

Results: Out of a total of 27 subjects who consented to participate, 18 did not meet the eligibility criteria. The remaining 9 completed the study, with lab profiles available for 7 of them. Of these, 7 subjects were found to be vitamin D deficient. 2 subjects belonged to class1 obesity ($2/7 = 29\%$ prevalence). No cases of hypertension or insulin resistance have been identified yet.

Conclusion: In the available sample of 7 subjects, prevalence of vitamin D deficiency and obesity, are 100%, 29%. As of now, no significant correlations exist between vitamin D levels and blood pressure or insulin resistance. However, this may be due to such small sample size. This may also lead to an extremely low power to detect any statistical significance. Hence, none of these findings can be generalized.

Title of Project: THE OBSERVATION OF HEALTH FAIRS TO PROMOTE ENRICHED LIFESTYLES IN SOUTH DALLAS

Student Name: Marion Lesley Lanig

Academic Advisor and Department: Shawn K. Jeffries, PhD, Social and Behavioral Sciences

Site Supervisor and Location: Cheryl Inmon Long, PhD, The Martin Luther King, Jr. Family Clinic

Introduction: The Martin Luther King, Jr. Family Clinic is a member of the Texas Association of Community Health Centers (TACHC), a private, non-profit organization providing care for all including the uninsured and underserved. The Clinic serves the diverse population of south Dallas by providing Medical, Dental and most recently, Behavioral Healthcare. The objectives of the health fairs was to help the community recognize the signs of potentially chronic medical conditions including depression, childhood obesity, and ADHD and develop behavioral change interventions such as smoking cessation.

Methods/Discussion: Introducing the Behavioral Health component involved collaborating with national as well as local organizations. A variety of business alliances were formed to encourage community health awareness by donating incentives. Four health fairs conducted during the practicum period were Hispanic Heritage Day, Take a Loved One to the Doctor Day, National Depression Screening Day and Harambee. The National Depression Screening Day was the primary focus of this research. Measurements for this event were taken from the Hands depression screening tool, the mood disorder questionnaire, Carroll-Davidson generalized anxiety disorder screen and the modified Sprint posttraumatic stress disorder screen.

Results: Self reported depression screening and tobacco cessation forms identified individuals eligible for behavioral change interventions. Participants were involved in games including “Feel Good Bingo” to help understand symptoms of anxiety and depression as well as eliminate cultural stigmas associated with these conditions. Out of the participants who scored “positive” for depression and anxiety on the screening forms, 32 warranted further evaluation and treatment for Behavioral Health services. The results of the screenings were reviewed by a licensed psychologist.

Conclusions: The health fairs exposed the community to the overall importance of mental health. Continued public education programs and screenings are necessary to empower this community to make the best health decisions for themselves and their families.

Title of Project: POOL SAFETY AND DROWNING PREVENTION EDUCATION IN TARRANT COUNTY

Name of Student: Elizabeth Marsico

Academic Advisor and Department: Terry Gratton, RS, MS, DrPH, Environmental and Occupational Health

Site Supervisor and Location: Gary Rothbarth, Tarrant County Public Health

Introduction: The Tarrant County Public Health department has been serving Tarrant County residents since the 1950's. Recently there has been internal interest in starting a water and pool safety program or constructing safety documents. It was unknown if any departments or safety agencies of individual cities within Tarrant County currently had their own literature or programs relating to water safety. Several major concerns for pool and water safety are Cryptosporidiosis outbreaks and drowning. Incidence of cryptosporidiosis in the United States has increased 400% since 1999. In Texas, an estimated 300 deaths occur annually due to drowning and is nationally the second-leading cause of death in children under 15 years of age. In addition, each year 4,200 children under the age of 15 are treated in emergency departments for submersion injuries.

Methods/Discussion: The Fire Departments and Departments of Parks and Recreation of each city within Tarrant County were contacted to identify whether they had pool and water safety literature or programs. A literature search was then performed using Pubmed and Ovid for the topics of: Pool Safety, Water Safety, Cryptosporidiosis, and Drowning. Data on all these topics were compiled and formulated into informational documents.

Results: Currently none of the safety agencies of cities within Tarrant County have endogenous water and pool safety programs or information leaflets. Children-oriented learning materials were designed and created to help educate children and their parents about specific issues relating to pool and water safety.

Conclusion: With the incidence of cryptosporidiosis outbreaks on the rise and omnipresent risk of drowning, especially in children, there is a noticeable need for pool and water safety. The Tarrant County Public Health department is combating this problem with the formation of education materials focused on children and their parents, as they tend to be at high-risk for both Cryptosporidiosis and drowning.

Title of Project: DATA QUALITY CONTROL AND MANAGEMENT IN A NIH FUNDED LONGITUDINAL STUDY: "COPD SELF-MANAGEMENT ACTIVATION RESEARCH TRIAL"

Student Name: Jatin V. Moghe

Academic Advisor and Department: Subhash Aryal, PhD., Biostatistics UNTHSC

Site Supervisor and Location: Sejong Bae, PhD, Department of Biostatistics UNTHSC

Background: Data quality control and management are critical to the effective conduct of a clinical trial. Ensuring that the accumulating data are as free of anomalies as possible is of utmost importance to the soundness of the process. The ultimate goal is to not have any errors in the data without any occurrence of protocol violations. There are two basic components of quality control: 1) quality assurance – activities that take place prior to data collection and 2) quality control – activities that take place during and after data collection

Methods: Data quality monitoring addresses the entire process by which the data is gathered, transmitted, stored, and analyzed. Data quality is monitored continuously, with summary reports prepared and distributed to the project coordinator.

Major components of the data collecting process include 1) tracking system: keeps track of the received scanned case report forms, 2) performs double data entry, 3) resolves the data clarification forms that are generated by the SAS program based on the edit check documents, 4) two entry reconciliation: ensures the accuracy of data entry.

Results: The data quality control is still an ongoing process which produces monthly status of the data entry to ensure that the quality of the data is up-to-date. Quality control plans are important to ascertain the accuracy of data collection and interpretation of statistical results. A structured system for tracking and storing data has been created. Double entry and reconciliation for data dated August 2010 to October 2010 have been created.

Conclusion: Quality control and management is an integral and continuing part of study operations. For quality control and management program to be successful, the coordinating center investigators and personnel must provide prompt feedback and suggestions for corrective action whenever a data quality problem is discovered.

Title of Project: VACCINATION AND FOLLOW-UP CARE REMINDER PROGRAM

Student Name: Nneka Okafor

Academic Advisor and Department: Claudia Coggin, PhD, CHES; Social and Behavioral Science

Site Supervisor Name and Location: Raphael Ogar Oko, African Regional Coordinator; Teachers Without Borders-Nigeria

Introduction/Background: Teachers Without Borders in Nigeria in conjunction with private hospitals and telecommunication companies plans to implement a vaccination and follow-up care reminder program that would be transmitted via SMS text messaging. Presently, parents and individual patients are responsible for remembering inoculation dates of their children or physician appointment times. Through the provision of a reminder program, the intended goal seeks to reduce the cost and consequences of disease due to lack of medical adherence. The reminder program can deal with issues surrounding individual health and public health. Ultimately, the primary aim of the project is to increase medical compliance through more efficient and technological avenues.

Methods: In the first phase of the project, meetings were conducted with stakeholders and potential groups that could aid in the implementation of the program. Invitation letters were drafted to solicit participation of private hospitals within Abuja FCT. The Federal Department of Public Health had strong interest in the program and helped to establish a list of local hospitals to contact. With patient or parental consent, appointment dates and contact information will be included in a patient database and a SMS text reminder will be sent to the telephone number provided in order to remind patients and/or parents of appointment dates. Incentives to telecommunication companies include: a broader audience for other marketing purposes as well as a boost social accountability persona. Further meetings with hospital directors and telecommunication agencies are scheduled in the upcoming weeks of August and September.

Results: Setbacks due to untimely responses from local and private hospital directors regarding program participation and scheduling issues, the vaccination and follow-up care reminder program has yet to begin. However, a timetable is being drafted in order to conduct evaluations at the implementation and outcome stages.

Conclusions: If there is high participation in the program by invested stakeholders: hospitals, clinics, patients and telecommunication agencies, then; several Nigerians will be able to receive quality and preventative healthcare. However, the program has not yet begun, therefore; there are no definitive conclusions could be made about the program at this specific time.

Title of Project: HIV/AIDS ART PROGRAM AND ORGANIZATIONAL ACTIVITIES AT NASCOP

Student Name: Joy A Osee

Academic Advisor and Department: Dr. David Sterling-Environmental and Occupational Health

Site Supervisor and Location: Dr. Irene Mukui, NASCOP-Nairobi, Kenya

Introduction: The National AIDS & STIs Control Program (NASCOP) of Kenya provides a number of services for families and individuals. NASCOP is mandated by the Ministry of Health to lead the Health Sector response to the HIV/AIDS Pandemic and to provide the necessary institutional, policy framework and guidelines. The programs activities at NASCOP fall under; Prevention, Treatment and Care, and Monitoring and Evaluation.

Method/Discussion: The HIV/AIDS Treatment and Care program at NASCOP provides a continuum of holistic care that meets the needs of those infected with or affected by the disease. The main objective for this program was to scale up the use of antiretroviral therapy (ART) nationwide. Dr. Irene Mukui-the ART program manager, coordinated nationwide ART activities which included overall interventions to reduce HIV/AIDS-related mortality and morbidity, improve the quality of life of people living with HIV/AIDS (PLHA) and their families, and to strengthen comprehensive care and support by introducing ART as an integral element of comprehensive care and support.

Results: Thanks to international donor partners; access to ART continues to expand at a rapid rate in Kenya. Huge reductions have been seen in rates of death and suffering of patients when antiretroviral regimens were used. Individuals in this program have benefited directly by Improvement of quality of life and survival of those affected, and a dramatic reduction of HIV related hospital admissions.

Conclusion: The program provided not only medical services but also social, psychological and emotional care to those living with HIV/AIDS. Despite the progress in this program, access to treatment services fell short of need, and the global economic crisis raised concerns about their sustainability. Global donor partners together with the Kenyan government have since promised to step up the support of the ART scale-up activities; this will greatly benefit the HIV/AIDS community in Kenya.

Title of Project: NATIONAL ELECTRONIC DISEASE SURVEILLANCE SYSTEM (NEDSS) TO SUPPORT DISEASE SURVEILLANCE IN ECTOR COUNTY

Student Name: Darshan Patel

Academic Advisor and Department: Raquel Qualls-Hampton, PhD., Department of Epidemiology

Site Supervisor and Location: Gino Solla, Ector County Health Department

Introduction: Ector County Health Department (ECHD) promotes public and environmental health programs and disease control activities in Ector County. ECHD oversees 901.1 square miles with population of 128,221 people in Odessa, TX. Monitoring the occurrence of diseases is a cornerstone of public health decision-making. National Electronic Disease Surveillance System (NEDSS) facilitates electronic exchange of data between various health care providers and regulators to expedite detection of disease outbreak in timely manner.

Methods/Discussion: Clinical cases are mostly recognized in the health care facility and reported to health departments. This leaves responsibility of tracking patient's record, filling out wide variety of forms created by CDC and to determine surveillance case definitions on to physician and office staff, which is already overwhelmed. NEDSS facilitates the collection of data from providers by making standard to collect and code the data. Major laboratories in state of Texas report patient's data electronically to county health departments via NEDSS. Subsequently health department personnel initiate the investigation in NEDSS and collect other data from various sources in order to match case definition. Once case status has been confirmed, state health department receives notification and eventually received by CDC.

Results/Conclusions: NEDSS has become a useful public health tool in making data reporting as uniform as possible across the nation and also trying to ease electronic data exchange in order to generate and report case to health department from medical facilities' computerized data system. This will lead to decrease burden over health care providers and will help to ensure that all cases are being reported as required by law.

Title of Project: RAPID IMPACT ASSESSMENT OF NUTRITION TRAINING IN URBAN HIV/AIDS PROGRAM

Student Name: Selam S. Tadesse

Academic Advisor and Department: Jim Stimpson, PhD., Social and Behavioral Sciences

Site Supervisor and Location: Dr. Meherete-Selassie Menbere, United Nations World Food Program (WFP), Addis Ababa, Ethiopia

Introduction: The WFP Urban HIV/AIDS program aims to improve the quality of life of food-insecure people infected or affected by HIV/AIDS. The program provides food assistance to three types of beneficiaries: people living with HIV/AIDS (PLHIV), pregnant/nursing women participating in programs which help prevent mother-to-child transmission (PMTCT), and orphans and vulnerable children (OVC). Since the program was refocused to address nutritional support in 2003, trainings have been provided for home based care providers (HBC) and home based supervisors (HBS) to increase counseling and monitoring skills. The impact of these trainings on basic nutrition knowledge and status was not previously assessed.

Methods/Discussion: An assessment was conducted to determine knowledge gaps and nutrition-related training needs among three levels of interviewees: HBS, HBC and beneficiaries. From 10 sub-cities in Addis Ababa the following were randomly selected: 5 sub-cities; 2 NGOs per sub-city; and 10 interviewees per sub-city (total: 50 participants). Questionnaires were created and measures of interest included: HBC-beneficiary interaction; basic nutrition knowledge; beneficiary outcomes; training status/needs/ challenges of HBS and HBC.

Results: Across all sub-cities, HBC spent an average of 40 minutes/visit and beneficiaries reported satisfaction with HBC support. Nutrition knowledge scores among interviewees were lower regarding the *Relationship between Nutrition and HIV/AIDS* and *Food Selection* versus other areas. Obtaining objective data about beneficiary weight gain/loss was challenging because HBC did not have recorded information on weight status or BMI. Need for increased training among all participants is evident, particularly in nutrition counseling techniques and quality assessment of counseling sessions.

Conclusion: The WFP has recognized that HIV and malnutrition exacerbate one another and have consequences for the health outcomes of beneficiaries. Providing HBC training on data collection and counseling and expanding HBS training to include quality assessment of counseling sessions may have the potential to positively impact the nutritional knowledge and status of beneficiaries.

Title of Project: AN ASSESSMENT OF AN INTERVENTION TO INCREASE ADVISING RATES AND GOAL SETTING

Student Name: Clark Walker

Academic Advisor and Department: Sumihiro Suzuki, PhD., Biostatistics

Site Supervisor and Location: Harrison Ndetan, DrPH, Parker Research Institute

Introduction: As part of an effort to increase the levels of engagement by staff and interns at a campus-based outpatient teaching clinic, an in-service educational intervention was held focusing on how patients change, types of advising strategies, and an order from the associate dean of clinics was issued requiring the levels of engagement related to primary health promotion be made mandatory. These strategies include addressing lifestyle changes and setting goals.

Methods/Discussion: A survey was developed aimed at patients who had been a patient in the clinic for more than an initial visit. The survey had demographic questions and questions on health behaviors along with questions assessing whether a lifestyle change was recommended, if they were asked about progress, and goals being set. 128 surveys were administered before the in-service intervention, and 162 administered after. The scores from the pre and post-intervention groups are compared to determine if there was a greater amount of health promotion offered after the intervention. Survey scores were compared

Results: Several aspects of health were measured including smoking, exercise, diet, stress, and sleeping habits. In general, if a lifestyle change was discussed, goals were more likely to also be set: OR=3.1(95%CI,1.3-7.1) prior and OR=9.6(95%CI,3.6-25.7) post intervention. This was more profound within the post intervention group (93.4%) compared to the pre-group (81.8%), $p=0.02$.

Conclusion: Efforts to get interns to engage patients were effective at increasing those reporting engagement. Continued efforts to make interns aware of the number of patients needing this valuable information may also stimulate more interaction. More research in what constitutes an effective plan to increase engagement of patients is needed in chiropractic teaching clinics as with repeated visits, the potential for a strong dose response should not be overlooked.

Title of Project: RELIABILITY ASSESSMENT OF SELF-REPORT DATA ON TEMPOROMANDIBULAR JOINT DISORDER FROM NORTHWEST PRECEDENT'S PRACTICE BASED STUDY ON THIRD MOLAR EXTRACTION

Student Name: Arbia Zainvi

Academic Advisor and Department: Dr. Sumihiro Suzuki, PhD., Department of Biostatistics

Site Supervisor and Location: Dr. Brian Leroux, PhD., Department of Biostatistics, University of Washington, Seattle

Introduction: Northwest PRECEDENT is one of three Dental Practice-Based Research Networks nationwide, which is operated jointly by the University of Washington and Oregon Health & Science University. An ongoing practice-based research in Northwest PRECEDENT is investigating the indications and outcomes of third molar extraction. Third molar removal has been linked to an increased risk of temporomandibular joint disorder (TMD). The purpose of the study was to assess the ability of patient self-report measures to accurately predict dentist assessment of TMD.

Methods: The data was obtained from general dentists participating in the Northwest PRECEDENT network. The study population was comprised of 16-22 year olds. At enrollment, patients completed a standardized questionnaire, which was followed by a brief clinical exam assessing the temporomandibular joint. Kappa statistics were used to assess agreement between patient self-report and dentist assessment.

Results/ Discussion: Both pain related outcomes appear to have a low to moderate positive agreement because pain measurement is usually subjective with the subjects potentially over/under estimating their pain levels based on the individual thresholds. Headache or migraine pain may also be mistaken for pain originating from the jaw muscles. In contrast, the Dentist assessment of pain due to TMD is more objective and precise. Positive agreement for clicking and popping appears to be high since its measurement is more objective with less potential of incorrect assessment.

Conclusion: Agreements between patient self-report and dentist assessment for pain-related TMD symptoms were low to moderate ($\text{Kappa} \leq 0.40$). Agreement was more substantial for clicking or popping ($\text{Kappa} = 0.63$).