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Experience
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Abstracts

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AN AMERICAN GIRL IN INDIA: A CROSSCULTURAL PUBLIC HEALTH PERSPECTIVE

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Public Health Service Learning Internship
Child Family Health International, New Delhi, India
Site Supervisor: Hema Pandy

The political economy of India has mainly focused health services in the medical field. Thus, public health has been greatly underfunded and neglected. This service learning internship aimed to expose participants to various public health issues ranging from sanitation and medical tourism to community outreach with intravenous drug users and rural health clinics. Through this experience, students acquire great insight to the current and emerging public health issues of India, challenge the current western models of thinking by expanding into a new cross-cultural perspective, as well as gain a global view of public health in a real world setting.

DESCRIPTIVE STATISTICS OF TUBERCULOSIS INFECTED PEOPLE IN DISTRICT OF COLUMBIA, 1992-2007

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District of Columbia Department of Health
Site Supervisor: Kim Seechuk, Program Manager

In 2006 the incidence rate of tuberculosis (TB) cases in the District of Columbia (DC) was 12.6/100,000 which is more than twice the national average. US born persons accounted for 39% of all TB cases in DC in 2007. To identify the Demographic risk factors associated with TB among DC residents we conducted a descriptive epidemiologic analysis of national data from the Tuberculosis Information Management Systems database of DC residents diagnosed with TB from 1992 to 2007. Analysis was stratified by Age, Race, and Country of Origin. 1409 cases of TB were reported. We found that TB incidence has been increasing with time among Foreign-born persons but the US born incidence is still higher. TB control strategies have not sufficiently addressed the high levels of TB and latent TB infection in DC. Policies should be put in place that will help reduce the incidence and spread of TB in DC.

PRACTICE EXPERIENCE IN A CLINICAL RESEARCH SETTING

Fifonsi Gbeasor

Centre d'Investigation Clinique de Lille (CIC) / *Clinical Investigation Center of Lille* (FRANCE)
Site Supervisor: Nawal WAUCQUIER, MD

The objectives of the practice experience were mainly to manage an ongoing study database (PARKFANORD) and to document the prevalence of restless legs syndrome (RLS) in multiple sclerosis (MS) patients. The aims of PARKFANORD are to better characterize the clinical features and inheritance patterns in families with Parkinson's disease (PD) in Northern France. The etiology of PD is unknown but the role of mutations in alphasynuclein, parkin and LRRK2 genes has been established. PD patients and some of their relatives undergo clinical examination and samples are collected for genetic analyses. The intern created database to record clinical features, a codebook, and performed data entry on 91 files. For the second project, analyses were performed on data collected on 242 MS patients who answered a RLS questionnaire. RLS prevalence was found to be twice higher in the study population compared to that of the general population (17.8% and 8.5% respectively).

IMPLEMENTATION OF OPTIMIZING CLINICAL CARE COLLABORATIVE (OC3) AT ALBERT GALVAL HEALTH CENTER: A FEDERALLY QUALIFIED HEALTH CENTER

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Fort Worth Northside Community Health Center dba Albert Galvan Health Center
Site Supervisor: Don Campion, COO/CFO

Optimizing Clinical Care Collaborative (OC3) is a set of recommended practice changes that when implemented creates a practice infrastructure that removes unnecessary waits and delays for patients and redesigns the clinical care delivery system to maximize health outcomes for patients. Data was collected on various performance measures such as: third next available appointment, cycle time, demand/supply/activity, panel size, no-show rate, continuity, and clinical care. This data was then analyzed in order to create new clinical and operational processes. In terms of quality of care, chart reviews were done on the current patient population to study their health status. We focused on specific areas such as HBA1c levels of diabetic patients, female patients who have not had a Pap smear within the last year, and our pediatric populations who did not have immunization records current. At-risk patients were contacted by staff and care was managed appropriately using OC3 protocols and procedures.

ASSESSMENT OF PRENATAL CARE AT THE COMMONWEALTH HEALTH CENTER

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Department of Public Health
Commonwealth Health Center, CNMI
Site Supervisor: Arielle Buyum, R.N., B.S.N., M.P.H.

Adequacy of prenatal care is a long-standing problem at the Commonwealth Health Center in the Commonwealth of the Northern Mariana Islands. The Kotelchuck score has been used as an objective means of assessing the adequacy of prenatal care for the last several years. Birth certificate and delivery log data were combined and cross-checked with billing and hospital demographic data to provide an evaluation of 2007 delivery data. Evaluation of 1,403 records showed that only 43% of pregnant women began care in the first trimester and 69% had an inadequate number of visits using Kotelchuck standards. Those women with no prenatal care were more likely to be under 25 years of age, low parity (1 or 2), other ethnicity, living in the southern part of the island, and lacking insurance coverage. Those lacking insurance coverage were mainly native Chomorros living in the southern portion of the island.

HEALTH LITERACY AS A MEDIATOR BETWEEN LOCUS OF CONTROL AND MEDICATION ADHERENCE: DOES THE RELATIONSHIP EXIST?

Presenter: Mayowa Ijagbemi
Primary Care Research Institute (PCRI)
Site Supervisor: Roberto Cardarelli, D.O., M.PH.

PCRI is a growing agency that is continually conducting new research. The Site Supervisor provided me the opportunity to access the database to a PCRI study that was conducted amongst persons diagnosed with HIV. Under the direction of PCRI staff, I was able to formulate a research question of my own using variables in this database.

Medication adherence is a predictor of positive health status among diseased patients. As such, it is necessary for healthcare practitioners to promote adherence for wellness occur. Literature shows that two predictors of adherence are sense of control (SOC) and health literacy. Since SOC is generally thought to be a stable characteristic of an individual, I hypothesized that health literacy could be acting as a mediator between SOC and medication adherence. My project sought to answer this question. The existence of this relationship could have implications for clinicians attempting to increase medication adherence among patients.

**AN ASSESSMENT OF THE CODE™ PROGRAM: A COMMUNITY DIABETES
EDUCATION PROGRAM FOR LOW-INCOME, UNINSURED PATIENTS
IMPLEMENTED AT CENTRAL DALLAS MINISTRIES, COMMUNITY HEALTH
SERVICES**

Misty L. Jones, RD, LD, CDE
Baylor Health Care System Office of Health Equity
Site Supervisor: Elizabeth Trevino, DrPH

The CoDE™ Program is a community intervention for low-income uninsured patients of Central Dallas Ministries, Community Health Services developed in collaboration with Baylor Health Care System's Office of Health Equity. It addresses the health disparities in the East Dallas Hispanic community related to diabetes care. The Hispanic population has been disproportionately affected by diabetes, attributed to low-income and lack of health insurance among this population. Participation in the CoDE™ program has resulted in significant reduction of hemoglobin A1c over a 12-month period, reducing the risk of the long-term complications associated with uncontrolled diabetes. A SWOT analysis of the program and a preliminary review of 2007 data demonstrate the program's success, opportunities for growth, and the feasibility of reproducing the program. An extension of the program to other charity clinics within the Dallas area is anticipated in 2009, pending the receipt of a five-year grant by BHCS Office of Health Equity.

**MELANOMA SURVIVAL STUDY: IDENTIFY TUMOR MARKERS ASSOCIATED
WITH VARIATION IN SURVIVAL FOLLOWING DIAGNOSIS OF MELANOMA**

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Department of Preventive Medicine/ Keck School of Medicine
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Site Supervisor: Dr. Myles Cockburn, PhD

The purpose of this retrospective study is to evaluate the relative risk of selected prognostic markers in melanoma disease progression through immunohistochemical methods to allow reproducible scoring, quantification and comparison among cases. About 600 melanoma biopsy specimens within last 30 years, with 9 to 14 years of follow-up data including initial diagnosis information, socio-demographic variables and treatment variables (radiation, chemotherapy and surgery) were collected from 15 major network hospitals in LA County. Each tissue micro array with 120 melanoma specimens was stained for hTERT, MiTF, PNL-2, S 100, HMB 45 and Ki-67. Each coded tissue specimen was graded based on percentage of area of melanoma stained (<25%, 25-50%, 50-75% and >75%) and strength of staining either as positive or negative. A standard survival analysis with an average of 10 years of follow-up using Cox proportional hazards modeling, allowing for marker status and initial treatment occurrences for death from melanoma, disease recurrence and metastatic disease is considered.

ASSOCIATION OF CALCIUM AND DAIRY PRODUCTS INTAKE ON COLON POLYPS AND COLON CANCER IN ADULT PUERTO RICANS: A PILOT STUDY.

Maritza E. Lopez

School of Public Health, Medical Sciences Campus-University of Puerto Rico

Site Supervisor: Ana Patricia Ortiz, PhD

This clinical-based project was part of a Cancer Prevention and Control Internship program funded by the Hispanic-Serving Health Professional Schools (HSHPS). The internship consisted of seminars and activities relating to cancer prevention and control studies, methods and tools used at the Puerto Rico Medical Center. In conjunction with these activities, I was given an ongoing project related to Cancer Prevention. The purpose of the investigation was to study the association of calcium and dairy product intake on polyps and colon cancer in adult Puerto Ricans. Food Frequency Questionnaires were sent out to participants regarding their calcium and food intake within a 30 day period. The questionnaires were then quantified to measure the total amount of supplemental and nutritional calcium in their diet. Although preliminary results found no significant associations due to the small sample collected (250) at the end of my experience, the investigation is still ongoing and will re-analyze the results once a sample size of 500 questionnaires has been received.

**PROJECT JUNTOS: BINATIONAL TUBERCULOSIS CONTROL PROGRAM
IN EL PASO, TX**

Karla K. Loya

Office of Border Health, El Paso TX, Department of State and Health Services

Site Supervisor: Adriana Corona, M.B.A.

Project Juntos is a binational tuberculosis control program that allows health officials in El Paso, TX and Juárez, Chihuahua, México to exchange information and monitor tuberculosis cases. To address the problem of border TB transmission, the El Paso City-County Health and Environmental District, the Texas Department of State Health Service, and the Mexican Secretariat of Health agreed that the two countries must work collectively to control and prevent TB in El Paso and Juárez. In the first 2 years of the program, 152 cases were identified, with 21% referred by the El Paso Health Department. Most Juárez cases occurred in the 25-44 year old age group, and the second highest number occurred in children under 5 years old. Most cases were born in the interior of México and migrated to Juárez. Factors associated with active TB were diabetes and substance abuse. These factors also contributed to noncompliance with treatment.

**MONITORING THE WELL-BEING OF OUR COMMUNITY:
AN ANALYSIS OF TARRANT COUNTY HEALTH DATA**

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Division of Epidemiology and Health Information, Tarrant County Public Health
Site Supervisors: Anita K. Kurian, MBBS, DrPH & Micky M. Moerbe, MPH

Health strategists utilize various types of health-related data to evaluate the well-being of Tarrant County residents including communicable disease, leading causes of death, and (new this year) preventable hospitalization data. According to the most recently available data from 2005, the leading cause of death in Tarrant County consisted of diseases of the heart (233.1 deaths per 100,000 population); similarly, congestive heart failure ranked as the top preventable hospitalization among Tarrant County residents (387.4 hospitalizations per 100,000 population aged eighteen years and older). On the other hand, Tarrant County morbidity data indicated chlamydia as the most frequently occurring communicable disease in 2007 (331.6 cases per 100,000 population). Rankings among these datasets differed by gender, race/ethnicity, age, and geographic location. Data obtained from these reports highlight conditions placing the greatest health burden on Tarrant County residents, thereby indicating possible intervention targets and directing the funding of disease prevention efforts in the county.

**USING A MULTIFACETED APPROACH TO PREVENT SANITARY SEWER
OVERFLOWS DUE TO FATS, OILS, AND GREASE**

Meagan Merrill
Water Resource Services
Arlington Water Utilities
Site Supervisor: Joe Gildersleeve

Water Resource Services is a division of Arlington Water Utilities whose goal is to protect the City of Arlington's water and wastewater systems through applicable federal, state and local regulations. These regulations are implemented in the Industrial Pretreatment, Backflow Prevention, Watershed Protection, and Liquid Waste programs of the City of Arlington. Fats, oils, and grease can accumulate in and block pipes, causing untreated wastewater to flow into homes, lawns, streets, parks, and rivers. Sanitary sewer overflows create health problems, affect wildlife, and are costly to remediate. Water Resource Services uses a combination of methods centered on engineering, education, and enforcement controls to reduce the prevalence of sanitary sewer overflows.

**NATIONAL CONSULTATIVE MEETING ON THE REDUCTION OF MATERNAL
MORTALITY. THEME: PARTNERSHIP FOR ACTION**

Efua Opoku
Policy Planning, Monitoring and Evaluation Department
Ministry of Health (MOH), Ghana
Site Supervisor: Janet Kwansah, Head of Monitoring and Evaluation Unit

In Ghana, maternal mortality ratio is estimated to range from 214 to 800 per 100,000 live births. These figures have persisted for some time despite various policies and initiatives including an Antenatal Care policy and the Safe Motherhood initiative. One of the Millennium Development Goals is to reduce maternal mortality by three-quarters by 2015. Ghana was among the member countries who signed for the Millennium Development Goals to be achieved by the year 2015. In September 2003 the Government of Ghana introduced the policy of exempting all users from delivery fees in health facilities. Current evidence shows that if efforts are not intensified Ghana will not be able to achieve its target goal for MDG 5(Improve Maternal Health). At the recent health summit (April, 2008) the Minister of Health declared maternal mortality as a national emergency. In fulfillment of a recommendation made at the health summit, a National consultative meeting on the reduction of maternal mortality was organized by MOH.

**ARTHRITIS AND THE NATIONAL HEALTH INTERVIEW SURVEY: WHAT DOES
IT SAY ABOUT HEALTH PROMOTION MESSAGES TO CHIROPRACTIC
PATIENTS WITH THE DISEASE?**

Vishnu N. Sarda, MBBS, MPH
Parker Research Institute, Parker Chiropractic College
Site Supervisor: Dr. Ronald Rupert, MS, DC
Site Mentor: Harrison Ndetan, BSc., MSc., MPH

We evaluated whether health promotion recommendations for known risk factors of arthritis progression differ between chiropractors and general medical doctors in a nationally representative US population with arthritis. It is a cross sectional study with secondary data analysis. Binary and multiple logistic regression models were used for analyses of data from the Sample Adult Core component of the 2006 National Health Interview Survey (NHIS 2006, n=6374 diagnosed with arthritis). Analyses were performed separately for recommendation of weight loss and increase in exercise. Chiropractors in the United States may be making some health promotion efforts and applying wellness approach in the management of this condition. This effort is less than but may not differ significantly, from the effort made by general medical doctors. Given the recent implementation of required clinical competencies in health promotion into chiropractic college curriculums, future studies regarding translation of learned wellness messages into public practice will be more informative.

NEUROPROTECTIVE EFFECT OF NEAR-INFRARED LIGHT EMITTING TREATMENT IN STROKE

Pankhil Shah
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Site Supervisor: Michel Torbey, MD, MPH

To evaluate the effect of treatment with near-infrared light emitting diode on total infraction area and neurobehavioral deficits in a mouse model of focal ischemia. Total hemispheric infraction volume was reduced in NIR-LED treated rats comparing with the non-treated group ($36 \pm 7\%$ vs. 50 ± 6 ; $p = 0.05$), which was most pronounced in the cortex ($41 \pm 8\%$ vs. 65 ± 6 ; $p = 0.01$). No statistical significance was observed in the stratum. Temperature and surgical time were not different between groups. Neurological assessment was statistically different and ischemia and at 24 hours (1.33 and 1.17 vs. 2.60 and 1.8 respectively; $p = 0.04$ both). A trend was observed in the NIR-LED in all neurobehavioral parameter. NIR-LED treatment represented a beneficial neuroprotective strategy at early states of ischemia due to the photobiomodulation of the mitochondria.

COMMUNITY-BASED HEALTH NEEDS ASSESSMENT: MANNAN TRIBAL COMMUNITY IN KOZHIMALA

Bryan Shaw, B.A.
Yearoutindia; Kerala, India
Site Supervisor: Navin Bose

Indigenous populations often suffer a disproportionate burden of illness and face barriers in achieving health and wellness. In the Indian state of Kerala this population constitutes less than one percent of the population and little is known about their culture, health beliefs and behaviors, and health profile. This lack of information makes the work of NGOs seeking to provide health-related services difficult. Yearoutindia, a volunteer-based NGO, requested a health needs assessment on the Mannan tribal population in the small rural village of Kozhimala. Using Rapid Assessment Process (RAP) methodology, the researcher conducted the assessment during the summer of 2008. RAP methodology allowed for the collection of both qualitative and quantitative information. Data informed the development of medical checkup and health promotion activities and community mobilization efforts.

HEALTHCARE ACCESS NEEDS ASSESSMENT FOR THE PRESBYTERIAN HOSPITAL OF DALLAS CATCHMENT AREA IN LAKE HIGHLANDS

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Community Outreach and Health Improvement Office
Presbyterian Hospital of Dallas
Site Supervisor: Elsa M. Phelan, MSW

The Lake Highlands Community, a catchment area of Presbyterian Hospital of Dallas reported having 60% free-lunch qualified school children, a predictor of poverty and underinsurance. The healthcare providers of the Hospital have joined the Healing Hands Clinic program to volunteer medical services to the uninsured/underinsured since July 2008. To assess the community's needs for healthcare access/resources, the Community Outreach Office of the Hospital has been collecting patient-visiting data in the Clinic. The findings based on four months (July-October) data indicate that the average patient load for a three-hour-evening clinic is 12.5 patients in that 68% are women and 12% are children. The most common population is Hispanic (50%), followed by Black (34%). The most needed medical specialty is Internal Medicine (44%), followed by OB/GYN (22%). Obesity (26%) and overweight (32%) are prevalent (58% for both) in the patients. These findings demonstrate the need for healthcare access especially in minority women.

PREPARING RURAL COUNTIES FOR A BIOLOGICAL ATTACK: THE CITIES READINESS INITIATIVE AND PUBLIC HEALTH PREPAREDNESS

Angelina P. Strickler
North Central Texas Council of Governments: Emergency Preparedness
Site Supervisor: Francisco San Miguel, Emergency Preparedness Specialist

The Cities Readiness Initiative (CRI) was developed by the CDC and the Texas Department of State Health Services to prepare cities with the equipment, resources and knowledge needed to provide prophylaxis within 48 hours of a biological outbreak to their entire population. The Public Health Preparedness (PHP) grant was developed to reach out to the further rural counties who do not receive CRI funding. The goal of the North Central Texas Council of Governments (NCTCOG) Emergency Preparedness group is to equip and train all 16 counties in the region for such an event. In order to do this, we have maintained strong relationships with all of these counties and participated in informational meetings, arranging exercises and trainings, mediating between the county and the state and helping the rural counties to meet grant deliverables. During my time at NCTCOG, we also dealt with the main issues of recruiting Erath County to the PHP program and developed a plan to replace expiring first responder medications with supply from the activation of the strategic national stockpile.

SISTERHOOD FOR CHANGE PROJECT EVALUATION

Cory Timmons
Kisumu Medical and Educational Trust (KMET)
Site Supervisor: Obando Ekesa

The Kisumu Medical and Educational Trust (K-MET) created an outreach project, Sisterhood for Change (SFC), to train girls and young women on Reproductive Health Issues and become community peer educators. This program is now in its third cycle and currently has two groups of young women (age 12-24) who have been through life skills training and learned to be peer educators; they have also gained vocational training in order to give alternatives to commercial sex work or reliance on males for money. The purpose of this evaluation was to assess the pilot project by interviewing the first 25 women to be involved in the project, their relatives and staff members close to the project and assessing the participants' impact in communities. By using multiple research methods and multiple sources of information, triangulation was achieved to gain a larger view of the successes and challenges in the pilot year of the SFC Project.

CONFINED SPACE ENTRY CLASSIFICATION AT AN INDUSTRIAL CAMPUS

Danny Wedeman
Alcon Laboratories, Inc.
Corporate Safety and Environmental (SAE)
Site Supervisor: Mike Malloy, SAE Specialist

Alcon Corporate Safety sought to update confined space profiles and permit-requirements at the Fort Worth campus to maintain compliance with OSHA confined space entry guidelines. Furthermore, a campus map of confined space locations required amendment to keep pace with ongoing construction.

Over the course of the summer of 2008, we updated all confined space records and entry procedures. Field investigations were conducted from June 6, 2008 to July 25, 2008. Confined space profiles were recorded electronically, and campus maps were updated to reflect changes. Sixty (60) new confined spaces were profiled while forty-three (43) spaces were removed. Seventy-eight (78) confined spaces were classified as "non-permit". There are now 280 documented confined spaces on campus.

**USING COMMUNITY NEEDS ASSESSMENT DATA TO IDENTIFY HIGH RISK
POPULATIONS AND JUSTIFY FUNDING: A PRACTICAL APPLICATION OF THE
2003 FORT WORTH COMMUNITY NEEDS ASSESSMENT**

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Site Supervisor: Witold Migala, Ph.D., M.P.H., Epidemiologist

Fort Worth conducted community needs assessment (CNA) surveys in 1998, 2003 and 2008. All surveys were face-to-face interviews. After the terrorist attack of September 11, 2001, four questions on terrorism and emergency preparedness were added to the 2003 CNA. Analyses determined that non-English speaking Hispanics were especially concerned about a terrorist attack or natural disaster but did not know how to access information on emergency preparedness. Geographic Information Systems and geo-coding the data identified that the concentration of this population was predominantly located in ZIP code 76106. The City of Fort Worth Public Health Department applied to the National Association of City and County Health Officials for a grant designed to target this underserved population. The grant was funded. After the intervention, a survey indicated that knowledge regarding emergency preparedness and where to seek out additional resources or information on emergency preparedness had doubled in the target population.