

Office of Public Health Practice

Practicum Abstracts e-Book



Fall 2007 e-Book (Vol. 3)

Introduction

The Office of Public Health Practice is pleased to publish the e-book of abstracts for the fall of 2007. This is a unique opportunity because the results are not widely shared and disseminated to others. Students at the end of the semester had the opportunity to submit their abstract for the e-book. The Office of Public Health Practice presents these abstracts for fellow students, faculty, and community preceptors to highlight their experience. The fall semester projects represented a wide variety of opportunities with regards to topics and settings. The abstracts in this e-book only represent students who chose to submit their experience for that semester.

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Topic: Attention Deficit Hyperactivity Disorder

Title: Pasarla Bien Program

By Rahul Damani and Thomas Louis

Public Health Significance

Pasarla Bien in collaboration with Healthy Communities of Brownsville is a pilot program focusing on providing psychiatric assessment and coordinating mental health services for students with ADHD (Attention Deficit Hyperactivity Disorder) at Besteiro Middle School located in Brownsville, Texas. The majority of students at Besteiro Middle School is from the underprivileged sections and is exclusively Hispanic. Besteiro Middle School is one of Brownsville Independent School District's lowest performing campuses and has a high dropout rate of students. The Pasarla Bien program focuses on early identification and intervention in case of students with mental and behavioral disorders and provides them with ongoing support and services to help them be successful and stay in school.

Approach

“ADHD (Attention Deficit Hyperactivity Disorder) is one of the most common neurobehavioral disorders of childhood and can persist through adolescence and into adulthood. The American Psychiatric Association's Diagnostic and Statistical Manual-IV, Text Revision (DSM-IV-TR) estimates that 3%-7% of children in USA suffer from ADHD. One of every two Americans who need mental health treatment does not receive it, and the rate is even lower—and the quality of care poorer—for ethnic and racial minorities.”

Findings

The Pasarla Bien program was designed to provide interventions for around 50 students identified with ADHD following initial psychiatric assessment. Intervention was based on a logic model with short term and long term objectives, which was designed by Graduate students of University of Texas working on this project. A multi approach intervention was provided to students and parents over the course of one year to meet the short term objectives of an increase in the GPA and in the internal and external assets of students, combined with a

decrease in discipline referrals and absences/tardies. The long term objective of the program is to increase the graduation rate of the students at the Besteiro Middle School. The various interventions that were incorporated into the program were psychiatric assessments and student counseling, social skills training and parenting workshops. The outcomes will be measured using pre and post test questionnaires administered to students and parents at the end of the program.”

Essential Services of Public Health

The essential services of public health which were addressed by the program include:

- 1) Diagnosis and investigation of a health problem in the community, and
- 2) Providing information, education and empowerment of people about those issues in an effort to address the public health problem.

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Topic: Cancer Detection

Title: The role of PDX-1 in the detection and treatment of Pancreatic Cancer

By Bhaskar Santosh

Public Health Significance

Pancreatic cancer is the fifth most common cause of cancer death in the nation, affecting more than 28,000 patients and their families each year. There were 30,300 new cases reported in 2002 and 29,700 deaths due to the disease. It carries a very high mortality and has a very low survival. Associations between diabetes and pancreatic cancer have been reported by many investigators. Diabetes of at least 5 years duration seems to increase the risk of subsequently developing pancreatic cancer. The current treatment that includes surgery and chemotherapy has not been effective in prolonging the survival.

Approach

PDX-1 is a transcription factor that has been over expressed in various cancers, mostly Pancreatic cancer. The study involved working with laboratory mice in which human pancreatic cancer cells were implanted. Following the administration of anesthesia to the mice, the abdomen

was opened. The major vessels were ligated and the pancreas was carefully dissected out keeping its blood supply intact. The abdominal aorta and the portal vein were cannulated, that is a micro-catheter was introduced. The pancreas was then perfused with Krebb's buffer which is a physiological solution to ensure the well being of the pancreas. The pancreas was then perfused with glucose solution. Samples were drawn to assess the insulin levels and the data was computed. Also, from the samples, the insulin gene was extracted from the samples and a specific promoter was obtained. A molecule of a specifically designed antibody was attached to the promoter.

Findings

The insulin levels produced by the mice with the cancer cells were comparable to the levels in the normal mice. There was no statistical difference between the two groups. In other words, the pancreas had returned to the normal level of functioning. PDX-1 has the ability to activate this specific promoter. Activation by PDX-1 resulted in the activation of the antibody which destroyed the cancer cells. This experiment paved the way for two significant findings. One, PDX-1 is expressed in most pancreatic cancers to the extent that it can be used as a marker for the disease. Secondly, the antibody was successful in destroying the cancer cells.

Essential Services for Public Health

The study involved the possible role of PDX-1 in future in the primary screening of pancreatic cancer. Also, if successful, this new form of genomic therapy will significantly bring down the mortality of the disease.

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Topic: Cancer Prevention

Title: Making Cancer History

By Sonali Sarkar

Public Health Significance

Cancer is an important public health concern. Early detection and prevention towards progression of advanced cancer stage can help prevent morbidity and mortality associated with cancer. Making cancer

History is the Mission of University of Texas M.D Anderson cancer center which is where I completed my practicum. There is tremendous scope available in this field. National cancer institute is the organization operating at the national level for early cancer detection and prevention.

Approach

I worked under the guidance and supervision of the faculty at MD Anderson which is the world’s number 1 cancer research institute. Genetic factors and tumor markers are associated with the development of cancer. Non modifiable risk factors like age and genetics cannot be avoided but modifiable risk factors like smoking, alcohol consumption, risky sexual behaviors, unhealthy life style, exposure to chemicals and carcinogens can be avoided to prevent cancer. I was involved in Cancer patient demographics, data interpretation, data analysis, data collection and data entry. This was important from Epidemiology, Biostatistics and Health promotion perspective taught to us at the UT School of Public Health.

Findings

My findings are by Effective Health education on Cancer Prevention strategies, proper training of physicians to recognize the early symptoms and clinical features of cancer like unexplained weight loss, low grade fever & recurrent infections, implementation of proper screening methods and interventions we can arrest cancer in early stages and prevent the progression of cancer and cancer related complication.

Essential Services of Public Health

Effective screening to detect cancer in the early stages, creating public awareness and primary intervention programs at the community level such as breast self exam and mammography screening, using condoms to prevent STDs’ and annual Pap smear in sexually active women are the essential public health services implemented to prevent cancer.

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Topic: Cancer Prevention

Title: A Meta Analysis on Obesity and Colorectal Cancer Screening

By Hong Zhang

Public Health Significance

A recent report commissioned by the American Society of Clinical Oncology forecasted a 48% shortage of medical oncologists by 2020. This potential workforce shortage could be reduced by cancer prevention activities. Although the ASCO report considered several remedies to the workforce shortage, none included prevention activities, which could have a substantial impact. However, such an impact can only be achieved if professionals are employed to develop and disseminate prevention activities.

Our objective was to assess growth of the field of cancer prevention. We hypothesized more opportunities for junior than senior scientists and growth in the variety of research areas within cancer prevention over time.

Approach

Assuming that institutions post job advertisements in journals read most by their desired applicant pool; we selected a journal for data abstraction using key words (e.g., cancer prevention, cancer control) in Medline and Web of Science to search titles and abstracts of health science articles. Other factors include numbers cancer prevention articles published annually, years of publication, and frequency of job advertisements. We abstracted data from 2005 through 2007 about the advertised position (i.e., title, degree qualification, rank), research focus (e.g., nutritional epidemiology, intervention development), and the hiring institution (e.g., type of institution, size of faculty, city, state).

Findings

We present preliminary data on indicators of growth in cancer prevention jobs over time by rank, discipline, and research foci, and demographic features of hiring institutions. We will develop a manuscript from our findings.

Essential Services for Public Health

My project addressed growth of cancer prevention field and workforce of cancer prevention field.

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Topic: Chemotherapy Symptoms Management

Title: Using an Interactive voice response telephone system in the assessment and management of symptoms in Cancer patients following chemotherapy

By Shitij Kapoor

Public Health Significance

Most of the cancer patients at M. D. Anderson Cancer Center suffer from multiple co-morbidities. The Department of Symptom Research has developed an interactive voice response (IVR) system that combines the M. D. Anderson Symptom Inventory (MDASI) with touch-tone telephones to follow outpatients who have symptoms that need to be monitored closely. This systems helps to identify the symptoms at early stage hence reduce the burden of disease.

Approach

It is collaborative study between different departments and symptom research department. Patients are selected by the department and we follow the symptoms of patients using interactive voice response (IVR) system that combines the M. D. Anderson Symptom Inventory (MDASI). The IVR is simple to use, even for elderly and very sick patients. The system calls patients at their convenience on a preset schedule; patients then use their telephone keypad to rate (on a 0-10 scale) and record their responses to MDASI symptom items.

Findings

It is an ongoing project. Information about symptoms that exceed a predetermined threshold value is forwarded via e-mail or pager alert to the patient's health care team to review and potentially to act upon. This IVR system is ideal for capturing the time course and severity of symptoms in clinical research. Patients on study can be proactively monitored, even on a daily basis, during and after treatment.

Essential Services of Public Health

The essential service of public health that my project focused on is “assessment”. The IVR system minimizes missing data, especially in longitudinal studies and it can provide immediate feedback that could be critical for managing symptoms effectively.

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Topic: Compliance in Health Care Institutions

Title: Business Practices – Legal Compliance in Health Care Institutions

By Stephen L. Chen

Public Health Significance

Compliance issues are of significant importance to hospitals. Public health officials are particularly concerned with legal compliance because the outcomes of these violations may result in severe health hazards to the population.

Deliberate and inadvertent non-compliance with state and federal laws and rules and regulations promulgated by the Centers for Medicare and Medicaid Services (CMS) result in adverse effects on patient care. The immediate impact on patient care is decreased quality of care and eventually access to care. Furthermore, non-compliance may result in decreased federal funding for government subsidized health care programs such as Medicare. States may also lose their funding for their Medicaid programs if state and federal laws are violated. Thus, the scope of legal compliance in health care institutions is broad in nature, as it encompasses management practices at the hospital level all the way up to the federal level.

Approach

Progress at this practicum was achieved through various procedures. As an intern, I reported to my superiors via email, telephone conferences, and direct communication. Most of my time was spent researching various state regulations and senate bills. The results of my research were then condensed into memoranda that were circulated to my superiors. Monthly staff meetings were also held to update compliance officers on uncompleted and completed tasks.

Findings

The final product consisted of memoranda and a significant update of the hospital's record retention schedule. In addition, I assisted in drafting policies and procedures regarding Nursing Peer Review, pursuant to an updated Senate bill. The revised policies and procedures were then submitted for approval by the Board in anticipation of implementation at the end of the summer.

Essential Services of Public Health

In order to assure conditions for people to be healthy, my project specifically focused on preventing the spread of disease and assuring the quality and accessibility of health services.

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Topic: Dry Eye

Title: Fluorophotometry is a Sensitive Method/Technique to Evaluate Epithelial Permeability in Experimental Dry Eye

By Scott Kelly

I worked in the Oculosurface Laboratory in the Department of Ophthalmology at Baylor College of Medicine. The lab is run by Dr. Stephen Pflugfelder, a world-renown Ophthalmologist thanks to his contributions to solving problems related to dry eye disease. I spent 4 months in the lab during my practicum, and worked nearly 50 hours per week. During my time there, I lead projects that will result in 2 publications as first author, and I contributed to many other projects. I also learned many investigative techniques, such as Fluorophotometry, Immunohistochemistry, and fluorescent staining. I spent the majority of my time working with genetically altered mice.

Public Health Significance

Dry eye research is significant because symptoms related to dry eyes are the second-most reported complaint ophthalmologists receive in practice (second to blurry vision). While the morbidity and mortality from dry eye is minimal, it is a very uncomfortable condition. In addition, the oculosurface center evaluates mainly treatment and prevention of immunologic diseases, such as Sjögrens and Keratoconjunctivitis Sicca.

While the diseases I worked on treating were very specific, any treatment modifications created under Dr. Pflugfelder are very large in scope due to his importance to the field of dry eye.

Approach

I began as an assistant in the lab. I learned many techniques, such as immunohistochemistry staining, fluorescent staining, and working with the lab mice. After 3 weeks, I was given my own project- to evaluate the epithelial permeability of mice using a prototype murine fluorometer. Since a fluorometer has never been used on mice, my job was to troubleshoot to find a successful protocol that would allow for repeatable data.

Findings

After working out a successful protocol, I performed the experiment. The Corneal permeability was evaluated prior to and after subjecting 6-8 week old C57BL/6 mice to experimental dry eye (EDE) for 2 and 5 days (n=10/time point). Untreated mice served as controls. Fifteen microliters of 0.001% sodium fluorescein (NaF) were instilled topically into each mouse's left eye to create an eye bath, and left to permeate for 3 minutes. The eye bath was followed by a generous wash with Buffered Saline Solution (BSS) and alignment with the Fluorotron Master™. Seven baseline corneal scans using the Fluorotron Master™ were performed during 15 minutes, followed by a second wash using BSS and another set of five corneal scans (post-wash scans) during the next 15 minutes. Corneal Permeability was calculated using the accompanying Fluorotron Master™ software.

Results

There was no statistical difference in the corneal fluorescein permeability baseline scans after 2 days or 5 days of EDE compared to untreated mice (1115.64 ± 118.94 , 1160.21 ± 108.26 vs. 1000.47 ± 75.56 ng/mL, $P > 0.05$ for both, respectively). However, the post-wash scans demonstrated that EDE caused a significant NaF retention at both 2 and 5 days of EDE compared to baseline, untreated controls (1017.92 ± 116.25 , 1015.40 ± 120.68 vs. 528.22 ± 127.85 ng/mL, $P < 0.05$ for both, respectively).

Essential Services of Public Health

My experience during my practicum served Public Health by researching new insights and innovative solutions to health problems (in this case,

dry eye). The Fluorotron Master™ is a useful and sensitive tool to evaluate corneal permeability in dry eye, and we will now be able to experimentally test the effectiveness of medications of preventing and treating dry eye.

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Topic: Employee Health

Title: My Dual Practicum Experience with the City of Houston Wellness Director and Mayor’s Wellness Council

By Scherezade K. Mama

Public Health Significance

Employee health and wellness is a serious public health concern. Optimum employee wellness increases work productivity and output and reduces employer’s insurance premiums. However, employee wellness is a tough feat, especially in an organization as large as the City of Houston, which has over 22,000 employees. In addition to my work at the City, I also worked on the *Trans Fat Ban* report presented by the Mayor’s Wellness Council’s Public Policy Committee to Mayor Bill White.

Approach

To increase employee wellness at the City of Houston, several programs were planned and implemented and later evaluated for effectiveness. Among these programs was the Mayor’s Cup Challenge, a year long initiative to increase employee wellness each month. Monthly challenges were sent to each department to distribute to their employees. Participation was measured using a pre-participation survey, and a point system was used to reward departments with the highest participation. At the end of each challenge, a post-participation evaluation survey was sent to participants to rate their liking of the program and its effectiveness. Some sample initiatives were line dancing during break time, completing the 5-A-Day challenge, or participating in the Houston Heart Walk. At the end of my practicum experience, employee participation and program completion was on the rise, a strategic plan for 2008 wellness activities was created, and a Wellness Ambassador program, designed to increase employee awareness of wellness events and therefore increase participation, had entered the implementation

phase. By September, the *Trans* Fat Ban report had progressed well and was ready for presentation.

Findings

The result of my internship with the City of Houston’s Wellness Director was a 2008 strategic plan of wellness initiatives, events, and activities and a fully developed Wellness Ambassadors program, ready for implementation. Both were received well by City employees who currently led wellness initiatives. In addition, a final draft of the official *Trans* Fat Ban report was presented to both the Mayor’s Wellness Council and the Mayor, and has since moved to the legislative process.

Essential Services of Public Health

My practicum experience primarily addressed at least 2 of the essential health services. City of Houston employees were informed, educated and empowered about health issues, specifically those that plagued City employees most. I also assisted with policy and plan development that supports individual and community health efforts by writing the report, ‘Is a *Trans* Fat Ban Right for Houston?’ and presenting it to the Council and Mayor.

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Topic: Hodgkin’s Disease

Title: Modeling Survival and the Development of Second Cancer Among Hodgkin’s Disease Patients

By Yun Xing

Public Health Significance

Survivors of Hodgkin’s Disease (HD) patients face varieties of consequent adverse effects such as secondary primary cancers (SC) etc. The risk of second malignancies among HD patients is usually 7 to 18 times higher than that of the general population. The assessment of SC risk is of great important in an effort to reduce SC incidence and extend survival.

Approach

I developed a model to monitor the risk of SC among HD survivors. Assume that the baseline hazard follows a Weibull distribution; I defined

the probability density function of developing a SC for each individual. The full log-likelihood function is further completed to be able to obtain parameter estimates. Newton-Raphson method was used in the computational step. Finally I applied this method to a real data set to estimate risk of several demographic or clinical factors.

Findings

I identified several risk factors for the development of SC among a group of HD diagnosed patients under the environment of treating death as a competing risk.

Essential Services of Public Health

Risk factors identified in HD patients can further help developing health care guidelines leading to early detection and/or prevention of SC.

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Topic: Lung Cancer

Title: A case-control study on the relationship of tea/coffee consumption with lung cancer risk

By Atsuko Fujiwara

Public Health Significance

Drinking tea and coffee are a part of our lifestyle, and are considered to possess potential health effects in various ways. Although we usually associate diet with the food we eat, beverage selection is also important for our health. The potential preventive effects of green and black tea on lung cancer have been studied extensively in laboratory research using in vivo animal and in vitro cancerous cell models. However, beneficial effects of tea consumption need to be demonstrated in studies of human populations. The objective of this study is therefore to examine how the habitual consumption of teas and coffee influence the incidence of lung cancer, with emphasis on anticancer effect of specific tea types. We examine the association between tea and coffee drinking as well as preparation and lung cancer risk using data from an ongoing case-control study at M.D. Anderson Cancer Center. Should our results reveal its beneficial effects, tea may be recognized as a protective habit for and therefore an important part of our sound diet. The results may assist

consumers to choose the tea or coffee product that provides the healthiest benefits.

Approach

A hospital based case-control study consisting of 1,088 lung cancer cases and 1,414 controls will be conducted using the database from an ongoing epidemiological study of lung cancer by the Department of Epidemiology of the University of Texas M.D. Anderson Cancer Center (Houston, Texas). Cases are newly diagnosed having lung cancer at M.D. Anderson Cancer Center whereas cancer-free subjects recruited through Kelsey Seybold Clinic will be considered as control subjects. To assess beverage and other dietary intakes, a modified version of the 135-item National Cancer Institute’s health habits and history questionnaire (HHHQ) including a validated food frequency questionnaires (FFQ) will be used. Information on cigarette smoking, familial history of cancer, and other demographic data were collected through HHHQ and personal interviews. For data analysis, multiple logistic regressions will be performed for testing associations between frequency of specific tea/coffee consumption and the risk of lung cancer.

Findings

In process, Fall 2007 term was spent to develop the study proposal.

Essential Services of Public Health

This project primarily addresses one of the essential services of public health – research for new insights and innovative solutions to health problems.

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Topic: Nutritional Supplement and Ovarian Cancer

Title: Policy Analysis of Texas Children’s Health Insurance Premium Assistance Program (CHIP-PA)

By Hardik Jani

Public Health Significance

Cancer cachexia is major health problem in people suffering from cancer. Even after treatment of cancer by chemotherapy, radiation, surgery; although tumor is cured, people still suffer from long term cachexia and

malnutrition. So, early preventive approach may be beneficial to maintain weight, to improve vitamin and minerals level in body and to improve overall quality of life. Current practice is to prescribe high calorie nutritional supplements to cancer patients. Epidemiological studies also suggest that high content of vitamins, minerals, antioxidants in fruits and vegetables also play protective role in various cancers and can help in reducing prevalence. It is believed that role of multiple nutrients in fruits and vegetables may be involved. Therefore, commercially available supplement Juice Plus+ and Juice Plus complete, which are high in phytochemicals and antioxidants contents, may benefit ovarian cancer women also in having healthy life and preventing cancer related wasting. Study hypothesis is to check significant change in anthropometric measurements and body vitamins, minerals level- before study and after study.

Approach

In study, main goal is to recruit patients who meet well to all eligibility criteria for the study. During initial days, all necessary software such as clinical station, file maker pro, Lotus notes were installed to work on. I also worked over literature review part on ovarian cancer and on their proposed study to understand whole picture better. First thing is to review electronics medical records data base from MD Anderson clinic station. I will be checking each patient to see if they are meeting eligibility criteria of study described in protocol. Every week, I was able to find around 3-4 such women from reviewing data base of gynecology-oncology department of MDACC. Then, I try to approach those women by personal meeting in MDACC clinics (preferable) or by mailing study brochure and request letter to them. I explained proposed benefits of study and provided them necessary information about study. Then, they voluntarily choose to participate in study. They will be registered in PDMS software prior to starting treatment and randomized into control or intervention group. Then, we send her recruitment packet of study which includes different forms, questionnaires, instructions, informed consent documents and recruitment letter which suggests proposed 0, 12, 24 weeks visits. Pretreatment evaluation (0week) includes filling of survey forms, having physical and anthropometric measures and series of biochemical tests as described in study protocol. Then, collected data will be entered in File Maker pro.

Findings

We could enroll our first eligible patient in study in October and second patient in November. We were able to identify around 30 people meeting to our participant selection criteria during 3 months. 2-3 women are undecided at this time, and may be they can participate in study in near future.

Essential Services of Public Health

This project addresses evaluation of potential benefit of Fruit/vegetable supplement in ovarian cancer survivor women.

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Topic: Policy and Management

Title: Discovering the Inner-Workings of a City-County Health Department

By Myriam Casillas

Public Health Significance

This practicum experience was important because the El Paso City-County Health and Environmental District's mission is to promote, ensure and improve the health and well being of the El Paso community. Being able to observe and assist in each department helped to reaffirm that mission. It also helped demonstrate that the organization was doing everything possible to continue to improve and that each department was working in concert to achieve the overall mission of the organization, which is to improve the health of El Pasoans. This organization deals with all facets of public health so it is imperative that they work tirelessly to ensure the health of every person.

Approach

Throughout the semester, I interned at each department for one week at a time. During this time, I interviewed department personnel to get an idea of what their role was. I also set up times when I could observe major activities or meetings that were taking place that week. On occasion, I would also assist a department with project tasks, activities, or meetings. Throughout the semester, I also maintained communication with the community preceptor as well as other department chairpersons.

Findings

The final product is a summative report detailing the experiences gleaned from each department within the city-county health department. A summary of each department’s daily activities and major projects have been compiled in this report.

Essential Services of Public Health

In the interest of time, I chose to intern at only the following departments within the City-County Health district: Administration, Health Promotion, Laboratory, WIC, STD’s, Immunization, Tuberculosis, and Food Safety.

Projects and activities within these departments dealt mainly with the following essential services of public health:

- Monitor Health Status
- Diagnose and Investigate Health Problems/Hazards
- Inform, Educate and Empower People
- Develop Policies and Plans
- Enforce Laws and Regulations
- Link People to Needed Personal Health Services
- Evaluate Effectiveness, Accessibility and Quality Personal and Population-based Health Services
- Research New Insights/Innovative Solutions to Health Problems

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Topic: Policy Analysis

Title: Policy Analysis of Texas Children’s Health Insurance Premium Assistance Program (CHIP-PA)

By Negin Fouladi

Public Health Significance

Annual preventive health care visits provide an opportunity for parents and caretakers to monitor a child’s growth and development. Children without health insurance are less likely to receive preventive visits than those with either public or private health insurance. A growing body of research links early childhood experiences with later cognitive, social,

emotional, and physical health and development. By intervening early and improving access to preventive healthcare, providers and parents can influence children's health and development, successfully assess the prevalence of children with special health care needs (CSHCN), and reduce infant and child mortality. Along with higher illness and mortality rates among children as well as an increase in avoidable hospitalizations, there are several social and economic consequences associated with the uninsured and decreased access to children's preventive healthcare. These costs include higher personal bankruptcy rates among families, lower work productivity through increased absenteeism, turnover, possible unemployment, shorter work life, and higher premiums for the insured.

In order to address the growing numbers of uninsured children not eligible for Medicaid, Texas enacted House Bill 3038 during the 77th Texas Legislature establishing a premium assistance program under CHIP (CHIP-PA). Senate Bill 240, enacted by the 78th Texas Legislature and signed by the Governor in 2003, modified the law to clarify that premium assistance was an option to the family as required by the Health Insurance Flexibility and Accountability waiver (HIFA 1115). CHIP-PA attempts to improve access to healthcare for low-income high-risk children and their families through employer-based health insurance. Benefits under CHIP-PA include benefits offered under the private employer plan, and must include basic services such as emergency services, inpatient and outpatient hospital services, physician's surgical and medical services, and well-baby and well-child care.

Approach

Analysis of CHIP-PA was conducted through extensive literature review of scholarly journals as well as national and state databases such as The Centers for Medicaid and Medicare Services (CMS), The Agency for Healthcare Research and Quality (AHRQ), The State Health Access Data Assistance Center (SHADAC) and Medical Expenditure Panel Survey (MEPS), and the Texas Health and Human Services Commission.

Findings

In response to the debate on SCHIP reauthorization, policymakers will need to consider ways to improve access to preventive healthcare for lower-income children and their families. Texas Children's Health Insurance Premium Assistance program can be used as a cost effective method to increase access to healthcare while decreasing state

expenditures and generate cost savings in times when states face federal budget deficits. In addition to reduced state costs, CHIP-PA allows low-income families to purchase private coverage through employers, as well as stabilize private markets. Finally, CHIP-PA will help transition working families into private coverage, acting as a stepping stone for future changes to the overall health care system in the United States.

Essential Services of Public Health

The project with Children at Risk primarily addressed the two public health essential services of Research and Evaluation of an innovative health policy, CHIP-PA. Research established new insights and possible solutions toward the growing problem of health disparities associated with uninsured children in Texas. Evaluation and critical review of CHIP-PA was conducted to determine program effectiveness and provide information necessary for future allocation of resources for improved efficiency, effectiveness, and quality. This information will be used to educate the community and elected officials for the purpose of reducing health disparities among children and their families. This research will serve as a base for CHILDREN AT RISK advocacy efforts.

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Topic: Program Evaluation

Title: Program Evaluation for Performance Improvement and JCAHO Compliance

By Mary Beth Johnson

Public Health Significance

Accreditation for healthcare facilities assures that standards of patient care are in place and enforced to protect the public that receive care at both public and private hospitals and other healthcare facilities. Monitoring regulations encompass a wide range of topics from patient identification to different treatment types to accident prevention. Compliance with these regulations is vital to the facility's ability to continue to provide services needed by the public in a safe and effective manner. This project was completed at the Center for Children and Families Dental Center for Children at Christus Santa Rosa Hospital.

Approach

The first goal of the project was to enhance understanding of Joint Commission on Accreditation of Healthcare Organizations accreditation process and standards. Using this information, a review of existing procedures for compliance was done to determine specific program evaluation needs of CCF Dental Center for Children. Strengths and weaknesses of present evaluation system were examined as well as the complexity associated with changes to the current system. Performance evaluations were completed via chart review. Areas of potential performance improvement and methods to achieve goals were discussed with clinic manager. Most interaction was with the clinic manager rather than the practicum preceptor.

Findings

Ultimately, it was determined that the existing methods of maintaining JCAHO were adequate to the task. No changes were made to the existing system of evaluation or monitoring. It was also determined that improvement in compliance was needed and could be achieved through enhancement of staff training.

Essential Services of Public Health

This project addressed both assessment and assurance as essential services of public health. JCAHO is a regular part of assessing healthcare organization's ability to serve the public, and so further assessment of related procedures within healthcare organizations is needed to assure that standards of care are adhered to and improved continuously.

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Topic: Reducing Tobacco Use

Title: WHO Regional Office Consultancy for development of grant proposals for submission to the Bloomberg Global Initiative to Reduce Tobacco Use

By Poonam Dhavan

Public Health Significance

Tobacco use is a significant cause of preventable disease burden and deaths, currently responsible for over five million deaths worldwide. The prevalence of tobacco use continues to increase, particularly in

developing countries and among vulnerable populations such as youth and women. The most cost-effective tobacco control measures are the population-based measures such as taxation on tobacco products, health warnings and enforcement of smoke-free public places. The Bloomberg Global Initiative to Reduce Tobacco Use (BGI) has committed 125 million USD for capacity building in fifteen high-priority developing countries that face most of the health, social and economic burden of tobacco use.

Approach

My practicum assignment during Fall 2007 was carried out in the form of a distance-based consultancy with the Tobacco Free Initiative of the World Health Organization (Regional Office for Southeast Asia) to perform secondary research and support technical grant writing for development and submission of proposals from countries in the Region to the BGI. Specifically, the terms agreed upon for the practicum assignment included (i) To review situation analyses and existing epidemiological data, where available and identify specific priority issues as well as mechanisms for partnerships between governmental, intergovernmental and nongovernmental agencies, to be addressed through each project proposal. (ii) To demonstrate professional writing skills appropriate for seeking public health grants from international funding initiatives such as the second and third rounds of BGI tobacco control grants.

I performed these tasks in close consultation with the team in Delhi, India. My supervisor (community preceptor, Dr. Khalilur Rahman) was in regular communication with me via email and teleconference calls every week. The information I used was collected from the primary grant applicants, WHO regional office and partners from selected countries. The materials I reviewed included information from the Tobacco Free Initiative (www.who.int/tobacco) and Bloomberg Initiative (www.tobaccocontrolgrants.org) websites; the BGI consultants' toolkit for professionals supporting grant development; national tobacco control legislation and the WHO Framework Convention text and other relevant publications.

Findings

I was responsible for writing one proposal right from the empty template and received another three in a preliminary draft, which I further developed and/or reviewed. We went through several drafts and

rounds of discussion for each of the four proposals. Each proposal included a project description with sections such as purpose of project and measurable objectives; context, partners and available resources; project activities; evaluation; identifiable objectives and sustainability ideas. Other parts were the work-plan with timeline and full budget with justification, including activities, human resource and other components. I was responsible for writing each of these sections for the respective proposals and would revise/review them based on the feedback and additional inputs received.

In addition to the proposal writing and reviews, during the practicum period I also contributed to the following activities (i) development of a background document to propose collaboration one economics of tobacco control in South-east Asia between WHO and the World Bank (ii) review of a draft communications strategy for tobacco control (iii) preparation of a presentation on lessons learned from legislative actions on tobacco control to a meeting of parliamentarians in the region.

In addition to the tasks related to the practicum, I also learned more about issues such as ethics in public health practice; essential public health services and competencies; public health leadership attributes and practical considerations related to the practicum for other students, through the online seminar PH 9997. An additional intangible outcome of the practicum experience has been strengthening of relationships with public health professionals at the WHO regional office.

Essential Services of Public Health

My practicum experience lends itself to an understanding of the following essential services of public health: (i) develop policies and plans (ii) enforce laws and regulations (iii) mobilize community partnerships (iv) research innovative solutions to health problems.

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Topic: Traveler's Diarrhea

Title: Program Evaluation for Performance Improvement and JCAHO Compliance

By Hoonmo Koo, MD

Public Health Significance

Travelers' diarrhea (TD) affects approximately 40% of travelers from industrialized nations to developing countries. With more than 50 million people traveling to developing countries each year, an estimated 20 million travelers are affected each year. This disease continues to be the most common health problem encountered by travelers. Food is the important known vehicle of transmission of travelers' diarrhea in developing countries. Noroviruses are the most common cause of food-borne diarrheal illness in the world. Up to 50% of TD cases have no etiologic agent identified. A significant proportion of these undiagnosed diarrheal illnesses are likely caused by undetected enteropathogens such as noroviruses.

Expression of histo-blood group antigens appears to be an important determinant of genetic susceptibility for norovirus infection. Resistance to norovirus infection is related to the secretor-negative status, in which inactive *FUT2* (secretor) genes lead to an absence of the H type-1 antigen. The H type-1 antigen is found on the surface of gastrointestinal mucosal cells and may act as a receptor to bind noroviruses.

Objectives

- 1) To assess the prevalence of norovirus as an etiologic agent of travelers' diarrhea in US travelers to Mexico.
- 2) To evaluate whether the baseline secretor status is a predictor of risk of norovirus diarrhea in travelers.

Approach

Population Enrollment and Surveillance: The study population consisted of US adult travelers in Guadalajara, Mexico from June 1 - August 30, 2007. Students were enrolled within 72 hours upon arrival in Guadalajara. Baseline saliva and serum samples were collected on all students. When a student became ill with TD, a stool sample was collected within 48 hours of diarrhea onset. TD was defined as passage of ≥ 3 unformed stools in 24 hours plus one or more symptoms/signs of abdominal cramps/pain, nausea, vomiting, fecal urgency, tenesmus, or flatulence. All students also completed diaries recording the date, time, consistency of all stools, and associated diarrheal symptoms from enrollment until departure from Mexico.

Laboratory Studies: 10% stool suspensions in PBS were prepared. Viral RNA extraction was performed with the QIAamp viral RNA extraction kit (QIAGEN) as per manufacturer instructions.

Findings

We enrolled 300 US travelers and followed these students prospectively for development of travelers' diarrhea. 120 (40%) subjects became ill with travelers' diarrhea.

Essential Services of Public Health

This study served as an assessment of the importance of norovirus as a pathogen of travelers' diarrhea and of genetic susceptibility patterns for norovirus diarrhea.