



2014 GLOBAL HEALTH WORKSHOP

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ABSTRACTS

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ABSTRACTS FOR ORAL PRESENTATIONS

SPECIAL PRESENTATIONS

AUTHOR(S): Naowarut Charoenca, Nipapun Kungskulniti, Nipapun; Stephen Hamann

UNIVERSITY: Mahidol University Faculty of Public Health

TITLE: “Commercial interests threaten public health through the Trans-Pacific Partnership.”

ABSTRACT: Background: The United States is the main promoter of the Trans Pacific Partnership, a so-called ‘trade agreement’ that is being negotiated in secret by 12 countries of the Pacific Rim. Leaked portions of this agreement show that it includes an international mechanism to deal with disputes of trade that benefits business interests at the expense of the rights of nations to set their own health policies. This supra-national mechanism known as the investor state dispute settlement (ISDS) mechanism has the potential to limit public health in numerous ways. Methods: Present positions of several Pacific Rim countries and international organizations opposing the TPP are reviewed. Results and Examples : At first, the US indicated it would make provisions to exclude tobacco from some provisions of the TPP, but then said it would not do so. We review the positions of organizations and governments who are a party to the TPP: Australia, Canada, Japan, Malaysia, New Zealand, and those not a party to it including China and Thailand. We also touch on efforts by US states and both US political parties to stop or delay the TPP. Outcomes and Conclusions: The outcome of efforts against the TPP are still uncertain, but countries in Asia should be aware of the dangers of this agreement as presently written, and work with those of similar interest against actions to limit national efforts to institute strong and cost-effective public health measures

AUTHOR(S): Henry Ko

UNIVERSITY: University of Sydney

TITLE: “Trends in clinical trial activity in Australia from 2005 to 2013. Implications for health research trade and ethics.”

ABSTRACT: Clinical trial registries (CTRs) are a public database of healthcare clinical trials. CTRs track some aspects of global health trade, particularly trends in clinical research activity. Using Australian New Zealand Clinical Trial Registry and ClinicalTrials.gov data, there are approximately 8,000 Australian trials registered as of December 2013. Since 2005 there has been a shift in clinical trial investment towards certain health areas, and towards smaller, non-industry, and locally-based trials. The median sample size of new interventional trials is decreasing (129 in 2005; 90 in 2013). The majority of new interventional trials are evaluating treatments, with cancer, mental health, and cardiovascular diseases being the most studied in 2013. The number of new industry and non-industry trials has increased since 2005, but in recent years the majority of new trials have been non-industry trials.

The majority of new non-industry trials are Australian-based trials (44% in 2005; 56% in 2013), with a minority being multinational trials. However for industry trials, multinational trial activity is decreasing (30% in 2005; 22% in 2013). The number of new Australian-based industry trials is also decreasing (21% in 2005; 17% in 2013). Apart from tracking clinical trial trends, CTRs also facilitate public health ethical obligations. They aim to uphold the scientific, ethical and moral responsibilities of researchers. The Declaration of Helsinki states that clinical trials should be registered in a publicly accessible database. However, not all trials are registered, and this is an important ethical issue that is being tackled by various global initiatives (e.g. AllTrials campaign).

AUTHOR(S): Md. Ershadul Karim

UNIVERSITY: University of Malaya Faculty of Law

TITLE: “Nanotechnology in Health Care: Present Status, Regulatory Challenges and Recent Developments.”

ABSTRACT: Abstract: Right to health is one of the most crucial human right and sound health is the prerequisite to enjoy other human rights. Nanotechnology, the next wonder after internet, has the prospect to solve many challenges of the developing countries, including safe and clean drinking water, disease diagnosis and screening, drug delivery system, food processing and storage, air pollution and remediation, health monitoring, etc. Researchers from around the world have already tested nanotechnology in almost every areas of human knowledge and concluded that this emerging technology has limitless potential. Of all the projected prospects, health care, medicine and diagnosis are the areas where nanotechnology can be applied more successfully. Nevertheless, there are concerns too as there are significant resemblances between the fibrous properties of nanomaterials with that of asbestos. Engineered nanomaterials or nanoparticles can enter human health in a number of ways- inhalation, ingestion and dermal. However, since most of the research are still mainly conducted in laboratory settings, the exact human health implications of nanomaterial are yet to be confirmed. Therefore, unless, nanomaterials can be regulated properly, the dream with and prospects of nanomaterials may turn to nightmare or perils. In this circumstances, this paper aims at sharing some recent developments in health care, regulatory challenges and dilemma of the regulators around the world and regulatory practices. This will be argued that nanotechnology R & D should be continuous within the approved regulatory framework.

AUTHOR(S): Duan-Rung Chen

UNIVERSITY: National Taiwan University

TITLE: Doing exercise is an issue of who you are or where you live? A comparison study of China, South Korea, Taiwan, and Japan.”

ABSTRACT: Asian countries are witnessing rising rates of obesity and decreases in physical activity, but few cross country analyses exist that explore patterns and variations. Regular physical exercise that emphasizes body building and workout is often perceived to be an element of Western lifestyle in Asia countries. People of high social standing tend to adopt a westernized lifestyle than of low social standing. This study draws data from four Asian countries to examine the relative association of one’s relative social standing and perceived neighborhood quality with regular physical exercise in adults while controlling for psycho-social factors. Cross-sectional data from the East Asian Social Survey collected in 2011 including nationally representative samples of adults living in urban areas from China, South Korea, Taiwan and Japan were used for analyses. Methods: Country-specific logistic regression models on regular physical activity were conducted. Results: The results indicated that respondents perceived to be in relative higher social ranking were more likely to have regular exercise, and this association was consistent across four Asia countries. Perceived neighborhood quality such as social support and accessible public facilities was associated with physical exercise for different countries. The study concluded that physical activity for its own sake (intrinsic motivation) may be less a predictor found in Asia societies. More studies on social class identity and associated social norms around weight and physical activity are warranted.

AUTHOR(S): Lamia Karim

UNIVERSITY: University of Oregon, Department of Anthropology

TITLE: “‘Learning to Labor’: Community-Based Healthcare and Female Garment Labor in Bangladesh”

ABSTRACT: This paper is an assessment of the healthcare needs of female garment industry workers in Bangladesh. Bangladesh is touted as the ‘cheapest’ place to manufacture clothes, and its workers are paid the lowest wages in the world while their labor is the source of a \$20+ billion revenue stream for the country. The garment industry employs over four million young women, mostly poor migrants from rural to urban areas. The industry has over 5,000 poorly-regulated factories. Following the eight-story factory collapse in April 2013, the world has learned about the dire conditions and low wages under which poor women stitch clothes for major American and European labels. But attention has focused on upgrading the safety standards in factories, and less attention has been paid to the environmental and health consequences of industrial work on the female labor force. Based on research, I found that workers suffered from the following health problems—chronic back pain from sitting for extended periods of time, upper respiratory infections from cotton dust, and poor nutrition. This paper explores the healthcare provided by a community-based organization known as Awaaj (Awareness) that runs an after-hours mobile clinic for garment workers. Awaaj has developed an innovative model by bringing healthcare to the slums where the workers live allowing them to visit the clinic after work. Moreover, Awaaj is associated with a local trade union run by a former garment worker, and it uses the clinic as a pedagogical environment to train workers about environmental hazards and their rights.

AUTHOR(S): Bohyun Kim, JD, MPH, Youngsun Ro, MD, DrPH, Juhwan Oh, MD, MPH, DrPH, Jong-koo Lee, MD, MPH, PhD

UNIVERSITY: Seoul National University College of Medicine

TITLE: “Global Health and Human Trafficking: A Need to Enhance Victim Identification at the Healthcare Setting in South Korea.”

ABSTRACT: In a single point in time, more than 27 million people are estimated to be ensnared as victims of human trafficking, a modern-day slavery. Considering geographical distribution of the crime where victims from 127 countries (countries of origin) were found to be perpetrated in 137 countries (countries of destination), human trafficking is truly a global phenomenon which needs global collaboration. Thus far human rights violation aspect has been the main focus in the human trafficking discussion, however recently health consequence of the victim and its public health implication has drawn attention from scholars. Acknowledging the important role of the healthcare professionals in combating human trafficking, educational resources, mostly focused on raising awareness, have been developed. Also since health professionals may encounter victims in their ordinary healthcare setting, some countries have developed screening protocol and interview protocol for healthcare setting. In this respect, in order to assess the current states of the victim identification procedure and protocol used in the healthcare setting in South Korea, this research reviewed the current South Korean Guidelines for Identification of Sex-Trafficking Victims (GIST), which is the only victim identification guideline in South Korea, developed by Ministry of Gender Equality and Family. The research concluded that in order to enhance victim identification at the healthcare setting, current guideline should be modified (i) to include comprehensive forms of trafficking such as labor trafficking and organ trafficking other than sex trafficking and (ii) to specifically tailored to fit for the healthcare setting.

AUTHOR(S): Lourdes Portus

UNIVERSITY: University of the Philippines, Communication Research Department

TITLE: “H1N1: Health Risk Communication System in the Philippines.”

ABSTRACT: This paper examines the health communication system and preparedness responses of selected vulnerable areas affected by influenza A(H1N1) in the Philippines. It probes into how the government, through the Health Department, handled risk communication during an influenza pandemic and what health communication system were in place to address the pandemic. Moreover, it discusses the main approaches in responding to AH1N1; situates the risk communication experience within communication environment; and describes the risk communication system and practices and challenges encountered by the Health Department. Applying the prism of Information, Uncertainty Reduction, and Uses and Gratifications Theories, a picture of the Philippine experience is created and brings to the fore scenarios in the pandemic response and health system. Factors such as health information scheme, organizational structures, financial and infrastructural constraints; uncooperative sectors, and time lags in the release of information affect the communication process and health information system. Using multiple research methods, an assembly of data was analyzed. Government officials from central, regional, provincial, and city or municipal levels were interviewed. Ocular visits in Manila, Nueva Ecija, Cebu, Bohol and Davao were conducted. This study reveals that issues related to pandemic preparedness and health system abound. While the government's risk communication system and messages exist, much is left to be desired to have impact. The study recognizes that the implementation of the risk communication system is situated amidst certain national and local communication climates and scenarios that put a heavy toll the system's effectiveness and seriously challenged Health Department health program.

AUTHORS: Steven Fox

UNIVERSITY: National Taiwan University

TITLE: Quality, Effectiveness, Value, and the United States' Ambivalence Toward Universal Coverage: One Yankee's Perspective

ABSTRACT: The main point is that marked heterogeneity in personal preferences for different health outcomes, in combination with the already-high prices for medical services and the ideological disagreements about the proper role of government, make it difficult to measure quality, effectiveness, or value -- and make universal coverage a very controversial issue in the U.S.

AUTHOR(S): Masamine Jimba

UNIVERSITY: University of Tokyo

TITLE: Strengthening continuum of care for maternal, newborn and child health: EMBRACE Initiative in Ghana

ABSTRACT: The Millennium Development Goals 4 and 5 seek to improve the maternal, newborn and child health (MNCH) status. However, their progress has been limited and uneven across countries. To speed it up, the Japanese government launched the Ghana EMBRACE Implementation Research Project in collaboration with Ghanaian government since 2012. For the first phase, we implemented formative researches in Dodowa, Kintampo, and Navrongo areas to assess the level of the continuum of care (CoC) in MNCH. After analyzing CoC situations, we found its barriers and promoters. The barriers were travel time to facility, health workers' attitudes, local beliefs; while the promoters were technical capacity of health facility, health workers' positive attitudes. Furthermore, we identified only 10% of mothers

completed required CoC process from antenatal care to postnatal care (PNC). Particularly, PNC within-48-hours was found as a major crack of CoC: its completion rate was only 26 %. Based these findings, we developed a protocol to conduct a main intervention study, effectiveness-implementation hybrid trials, in the same three sites. The intervention package includes (1) CoC card utilization, (2) reorientation of health workers, (3) retention of mothers for 24 hours postpartum, (4) home visit PNC. The intervention will start from August 2014 and will be evaluated after one year. This model will be then scaled up in Ghana and other neighboring countries. Our unique trial is now dawning.

AUTHOR(S): Kristine Qureshi

UNIVERSITY: University of Hawaii at Manoa, Department of Nursing

TITLE: “A Model for Global Service Learning to Enhance Health Education.”

ABSTRACT: Service learning is an excellent method for global health education. Students gain valuable experience resulting in improved cultural competence and confidence, and the host country benefits from the services that it receives. Service learning conducted abroad is frequently termed global service learning (GSL), and is especially suited for collegiate education. The University of Hawaii at Manoa School (UHM) of Nursing has participated in the Pacific Partnership (PP) humanitarian mission each year since 2011. The aim of PP is to improve interoperability of international military, governments, and humanitarian agencies in the Pacific Region. During each PP mission UHM faculty and students serve as part of an international team comprised of civilian, military, NGO and academic personnel from multiple nations. They engage in a wide variety of service learning activities, including direct health services and subject matter expert exchange (SMEE) activities. After each mission a program evaluation is done and lessons learned inform refinement of the model for future GSL missions. After each mission participants overwhelmingly report improved knowledge, skills, competencies and confidence to serve on a humanitarian mission, and a better understanding of the host country and factors that influence health outcomes. Host nation participants consistently report high appreciation for the mission, and a better understanding of the US culture. GSL is an excellent method for enhancing the global health education skills of faculty and students from both the PP and host nation participants. All participants benefit from this type of endeavor; GSU should be supported and expanded in the future.

AUTHOR(S): Hsien-Ho Lin

UNIVERSITY: National Taiwan University

TITLE: “Global health practicum in Malawi of National Taiwan University.”

ABSTRACT: The global health overseas practicum of National Taiwan University

(NTU) started in 2011 when the Department of Public Health of NTU developed a new concentration of global health for undergraduate students. The Malawi program was the first global health overseas practicum of NTU and was designed in collaboration Luke International in Malawi (LIN-Malawi), a non-profit organization, and its sister organization Pingtung Christian Hospital. Students who are interested in taking the practicum needs to apply and be interviewed by the faculty members of NTU and staff members of LIN in Malawi. During the eight-week practicum in Mzuzu City of Malawi, students are exposed to and participate in the main working areas of LIN-Malawi, including the health information system project, the capacity building program, and the community development project. The students also have the opportunity to develop their own research agenda with the help from LIN-Malawi. Building on the success of the undergraduate practicum program, NTU, LIN-Malawi, and the Mzuzu University are developing a research platform with the overarching goal of addressing important public health issues in Malawi, strengthening local research capacity, and training public health students from both ends.

AUTHOR(S): Edmond Esguerra & Jason Dibbs

UNIVERSITY: University of Sydney

TITLE: “International Medical Education Partnerships: Lessons from Australia-Vietnam Medical Foundation Fellowship Programs”

ABSTRACT: This paper evaluates the medical education fellowship programs of Học Mãi (translated to ‘forever learning’) Foundation of the Sydney Medical School, University of Sydney (Australia) implemented from 2007 until 2012. During their three-month fellowship, participants attended two days each week of interactive lectures and workshops and the other three days in a supervised clinical or laboratory placement relevant to their role. Methods: Pre- and post-activity surveys (n=47/55) were conducted on the 2011 and 2012 cohorts of Vietnamese medical and healthcare practitioners. Follow-up personal communications and interviews with fellows were conducted giving triangulation of quantitative and qualitative data. Results: 94% of the surveyed participants of the programs confirmed the usefulness of the content of the structured teaching program upon returning to Vietnam. Agreement was also made on the appropriateness of the tailored program. Học Mãi alumni fellows are encouraged to remain involved with the foundation’s activities in the years after their participation. Conclusion: Học Mãi’s longstanding collaboration with the Vietnamese health education sector exemplifies effective partnerships between international organisations, NGOs and governments towards the improvement of knowledge, skills and capacities in the field of +medicine and healthcare. The Học Mãi model valuing strong relationship building as integral to capacity building knowledge and skills among health professionals is successful, sustainable and applicable to the rest of Southeast Asia. Replication of Học Mãi’s fellowship programs is aimed to be trialed in other countries in the Southeast Asian region.

CONCURRENT PANELS

AUTHOR(S): Paolo Miguel Manalang Vicerra

UNIVERSITY: Chulalongkorn University

TITLE: “Social, cultural, and health factors affecting infant survival in the Philippines, 2003 and 2008”

ABSTRACT: The number of infants who are unable to make it to their first year of birth is declining across countries on the average but, the Philippines falls short in achieving its Millennium Development Goal. The focus of this study is to test factors on demographic and health behaviours in the Philippines with the inclusion of socio-cultural facets regarding women’s status as it remains to be studied. Factors as attitude on household violence, intention of pregnancy, and household decision-making capacity may have a consequence on the survival of children. The analysis, using the 2003 and 2008 National Demographic and Health Surveys, employs binary logistic regression of parameter estimates toward the outcome of infant survival. Results show that analysing with socioeconomic determinants and subsequently adding proximate determinants of health-related behaviour indicate that the effect of the former have less impact leading to a contention that infant mortality is better predicted when a multitude of factors are considered. Between periods, maternal education display strong effects as predictors which is the case for many studies even in societies other than the Philippines. It is exemplified as well that there are gradients to certain behaviours as breastfeeding practise, exposure to infection, and completion of immunisation. Infants whose mothers have no education and are from a low socioeconomic status experience more infant deaths than those from the other extreme of the said characteristics. These annotations may then be utilised toward creating policies that are better targeted to achieve the desired outcomes of improved population health.

AUTHOR(S): Mu Li

UNIVERSITY: University of Sydney, School of Public Health and China Studies Centre

TITLE: “Mhealth: A promising approach for promoting appropriate feeding practices and improving child nutrition.”

ABSTRACT: mHealth refers to using mobile devices to improve adherence to health advice, increase access to health information, and promote healthy behaviours. One of the fastest growing applications of mHealth is mobile short message service (SMS), whereby health promotion and relevant health information messages are sent directly to targeted recipients. Other benefits include relatively low cost; avoidance of travel to health facilities; flexible service delivery. Early nutrition in the first years of life influences many immediate as well as later health outcomes, including obesity and non-communicable diseases. Feeding practices for infants and young children in both developed and developing countries are still suboptimal. Hence, strategies are needed to support appropriate feeding practices. Such strategies must achieve the maximum population reach at a low cost and be easily sustainable by local health services. To address knowledge gaps of the feasibility and acceptability of mhealth approach in infant feeding promotion, we have conducted a community-based SMS infant feeding promotion intervention among expectant and new mothers in Shanghai, China. The preliminary results are very encouraging. The feasibility and acceptability are demonstrated by a high retention rate and improved feeding practices. The duration of exclusive breastfeeding for children younger than 6 months significantly increased and the number of infants having complementary foods before 4 months significantly decreased. Using SMS to promote breastfeeding is well accepted and feasible in Shanghai. This may prove to be a model for culturally-acceptable healthy infant feeding promotion to prevent childhood obesity in other countries undergoing similar nutrition transitions like China.

AUTHOR(S): Mat Lowe & Song-Lih Huang

UNIVERSITY: National Taiwan University & National Yang Ming University

TITLE: “An Exploratory Study on the Social and Cultural Factors Affecting Maternal Health in Rural Gambia.”

ABSTRACT: Maternal health disparities are evident throughout the developing world; however, nowhere are these disparities greater than in sub-Saharan African countries like The Gambia. Maternal mortality is also the vital indicator with the greatest difference between developed and developing countries like The Gambia. Based on ethnographic fieldwork (involving participant observation, individual in-depth interviews and focus group discussions), this study explores rural Gambian women and men as well as Traditional Birth Attendants (TBAs) perceptions of maternal health issues from a gender perspective. Apart from the well known ordinary health system factors, this study found factors such as women’s physical and emotional work and labor as greatly affecting their maternal health. These factors, the study revealed are due to the biased land tenure system, husbands rent seeking behavior and the unfavorable trust system in the household which are socially and culturally motivated.

AUTHOR(S): Yukiko Wagatsuma

UNIVERSITY: University of Tsukuba, Department of Clinical Trial and Clinical Epidemiology

TITLE: “Fetal growth and development: a life course approach to health.”

ABSTRACT: About 20 years ago, David Baker of Southampton University wondered if some adult diseases had their roots at the beginning of life, in developmental “decisions” taken by fetuses. This is now known as the “Barker Hypothesis.” The purpose of this study is to create a large fetal cohort for long-term multi-generational follow-up. As a first step, we described the fetal growth in a population

where maternal malnutrition is prevalent, and examined whether maternal nutritional supplementation introduced during the first trimester of pregnancy had more positive effect on fetal growth. This study was conducted in a rural area of Bangladesh where the health and demographic surveillance system is maintained. All pregnant women were randomized to receive 600 kcal food supplementation beginning in early or late pregnancy and multiple micronutrients or iron and folic acid only. Fetal growth was monitored during pregnancy. Various IUGR patterns were identified at various timing of gestation. Trajectory into child growth and immuno-competency are currently under evaluation. This study will provide the information on trade-off between mother and fetus in immediate and later health outcomes.

AUTHOR(S): Wayan Darwata, Tangking Widarsa, Yudi Rachmanu, and Ratna Juwita,

UNIVERSITY: Warmadewa University Medical School

TITLE: “Determinant factors of under-nutrition among children under five years of age at Warmadewa Medical School field training area.”

ABSTRACT: Under nutrition has bad impact on a child’s growth and development, intelligence, and activity. A cross sectional study was conducted at Tulikup Village to identify the determinant factors of children under 5 years who suffered from under nutrition. Two hundred children under 5 years of age were selected randomly from children registered at the weighing posts in the village. Nutritional status was defined base on weight and age, classified into over, normal, and under nutrition. Variables including low birth weight, exclusive breast-feeding, calorie and protein intake, illnesses suffered by the children, drinking water, latrine possession, education, occupation, and income of households, were studied as the risk factors. Data were analyzed using logistic regression at 0,05 significance level. The study found that the prevalence of under nutrition of children under 5 years of age was 10.1% . About 81.5% of the samples had calorie intake under the reference dietary intake, and 35.1% had protein intake under the reference dietary intake. Factors which were significantly related to the risk of under nutrition were: low birth weight (OR = 4.9), income less then 5 percentile (OR = 7.8), low education level of mothers {OR = 4,1), and exclusive breast-feeding (OR = 1.2 – 10.0). The risk of under nutrition among children under 5 years was significantly related with birth weight, exclusive breast feeding, education level of mothers, and family income.

AUTHOR(S): Anthony Bernardo Abustan

UNIVERSITY: University of the East Ramon Magsaysay Memorial Medical Center

TITLE: “Filipino Nurses’ Perception on the Projected Impact of ASEAN MRA in Nursing Services to Education in the Philippines.”

ABSTRACT: This research aimed to provide perceptions on the projected impact of the ASEAN – MRA in nursing services to education and the nursing profession as a system. Using single case study with multiple participants, this study generated rich descriptions of these complex phenomena involving the influence of MRA within the viewpoints of key participants in the nursing profession. The analysis was conducted using Christopher Hahn’s Data Coding analysis. Data coding was done in 3 levels that led to patterns of themes and sub themes. The findings of the study revealed the MRA as a change agent to enrich the nursing profession through enhancement of the educational system, creation of opportunities towards professional development, transforming Filipino nurses, and standardization and quality of assurance of nursing practice. The results of the study generated conclusions that elucidated on the projected impact of Association of South East Asian Nations (ASEAN) Mutual Recognition Agreement (MRA) to nursing education, practice and standardization. The study provides an insightful description on the MRA’s impact on the nursing profession. However, it is recommended to expand the participants

to other practitioners assigned in various healthcare settings like health centers, government hospitals, community and nursing educational institutions to gain more information

AUTHOR(S): Kuen Cheh Yang

UNIVERSITY: National Taiwan University Hospital

TITLE: “The empowerment model of short-term volunteer service: the second year experience of health promotion for children in Ladakh.”

ABSTRACT: Recently, serving in a volunteer short-term medical program is a trend in Taiwan hospitals. Ladakh is an area of Jammu and Kashmir State in north India with height over 3000m. In 2012, we finished the health examination of 214 children and set up a basic healthcare center in a local school. In August 2013, we expanded our multi-discipline team and provided the services to neighborhood. In 2012, we evaluated children health condition via health examination. We also performed field work, including interview and site inspection. The data was analyzed to reveal the local environmental, cultural and health needs. In 2013, we recruited a dietitian in addition to doctors and nurse. Our service included 1) the health examination and referral system, 2) health worker training program for healthcare center sustainability, 3) health education courses for children and school staffs, 4) evaluation and advice of nutrition based on fieldwork in local markets and hygiene suggestion for kitchen management. We also provided service for another school and visited local institutes in community fieldwork survey. According to strategies for health promotion of WHO and empowerment model, we collaborated with local people and arranged available health resources meeting the local demand, culture and economic condition. The self-operated healthcare center in school was intensified with training the health worker. The nutrition and kitchen hygiene suggestions could improve children growth and healthy environment. By enhancing health literacy through health education, children improved self-care skills. We hope to develop a healthcare satellite network in Ladakh in the future.

AUTHOR(S): Juhwan Oh; Youngsun Ro; Jong-koo Lee

UNIVERSITY: Seoul National University College of Medicine

TITLE: “Reciprocal support for health professional development: philanthropic educational development action of 1950s in 2010s.”

ABSTRACT: Seoul National University College of Medicine (SNUCM) had been fostered by University of Minnesota in 1950s and 1960s under the generous financial support of USAID. After getting successful development thanks to the technical support from this initiative, SNUCM began to pay its benefit back to other countries in Asia by establishing equivalent initiative since 2010 via financial support of Korean Government. Lee Jong-wook fellowship, Global health Practicum in Seoul under the name of Dr. Lee Jong-wook, former director general of WHO and alumni of SNUCM, gives overseas training opportunities for professors of health science (since 2010) and officials of Ministry of Health (since 2013) of neighborhood countries in Asia. Officials of Ministry of Health from Lao PDR, Cambodia, Myanmar, Indonesia, and Sri Lanka, were invited to SNUCM for 6 months in 2013. Fifty three faculties from SNUCM and other colleges of SNU served them via providing professional courses. The courses consisted of 400 hours: evidence-based public health, communicable disease policy, policy for maternal-and-child health, injury-control policy, cancer policy, oral-health policy, policies for nursing-and-midwifery, other non-communicable-disease-control policy, global-health policy, emerging issues in developing countries, and competency training for officials such as document writing and presentation skill etc. Evaluation was done with respect to 1) course satisfaction (via anonymous online survey after their returning) and 2) knowledge improvement (pre-post design) using open question and double blind

content analysis method via faculties residing in other country. Average satisfaction score was “satisfactory”, and significant improvement of knowledge score (5-15 % score improvement).

AUTHOR(S): Senice So and Danielle Somers

UNIVERSITY: University of Sydney Office for Global Health, Medical School

TITLE: “Office for Global Health facilitated student electives abroad”

ABSTRACT: Sydney Medical School (SMS) encourages all students undertaking its graduate medical program to learn about global health. We consider it essential for medical students to develop an understanding of the social and economic determinants of disease, as well as the interconnected nature of health worldwide. An 8-week elective term in the final year of the course provides an opportunity for students to experience other systems of health care, to enhance their clinical skills, to work with diverse and/or underserved populations, and to understand the cultural issues that affect behaviour in patients seeking and in providers delivering health care. Undertaking an elective abroad also provide students with the opportunity to be immersed in a different culture, to be discomfited by this experience, to examine their own preconceptions about medicine, and to reflect on the crucial value of cultural humility. The Office for Global Health (OGH) has forged a global network of over 32 exchange partners, facilitating 66 students to come into Australia to study in reciprocation for 88 SMS students going to overseas sites. Formalized student exchange agreements in which both institutions share waive tuition fees and address issues of audit and risk management, medical indemnity and insurance coverage. Student resilience and performance issues, ethics and preparedness for study abroad are monitored by OGH. Sending students in pairs as ‘buddies’ enhances peer support, student confidence and professional development as well as increasing personal security. Spin-offs from these bilateral exchange relationships include staff mobility, increased collaborative research and enduring academic partnerships.

AUTHOR(S): Mami Wakabayashi

UNIVERSITY: Osaka University

TITLE: “Alcohol consumption patterns and burden of non-communicable disease / injury in Thai Cohort.”

ABSTRACT: We investigated the relationship between patterns of alcohol consumption and non-communicable diseases (NCDs) and injury in Thailand. Participants 87 151 Thai people were recruited through the Thai Cohort Study. Alcohol consumption was classified from a type of drinking habit and quantity of alcohol consumption per one time: Never drinkers (26.4%), moderate drinkers (42.2%), binge drinkers (18.1%), and heavy drinkers (4.3%). Ex-drinkers (9.0%) were excluded from the analysis. Outcomes were self-reported lifetime diagnoses and self-reported injury in the past 12 months. Logistic regression was used to calculate the odds of each outcome among drinkers relative to never drinkers.

Relative to never drinkers both heavy drinkers and binge drinker had significantly risk of high cholesterol, hypertension, obesity, liver disease and injury after adjusting for age, sex, socioeconomic variables, and health behaviors. For example, binge drinker associated with high blood presser (OR=1.20, 95% CI; 1.04-1.39) and heavy drinker associated with high blood presser (OR=1.48, 95% CI; 1.24-1.78). Moderate alcohol consumption was associated with an increase in the odds of liver disease (OR=1.28, 95% CI; 1.11-1.48) and injury (OR=1.28, 95% CI 1.20-1.36) but not other outcomes. Socio-demographic factors associated with alcohol consumption patterns differed by gender. Moderate, binge and heavy patterns of alcohol consumption were associated with NCDs in this Thai population. Our study highlights the need for alcohol control strategies to target moderate alcohol consumption and binge-drinking, as well as heavy drinking, in order to prevent alcohol-related NCDs and injury in middle income countries.

AUTHOR(S): Simin Deng

UNIVERSITY: University of Leeds, COMDIS-HSD China Programme, Nuffield Centre for International Health and Development

TITLE: “A cross-sectional study measuring multi-morbidity among people aged from 50 to 74 in Zhejiang Province, China.”

ABSTRACT: Chronic disease is one of the major challenges facing healthcare systems worldwide. This study aims to examine the potential risk factors that were associated with multi-morbidity of chronic disease. Methods: A cross-sectional study was conducted in two counties of Zhejiang province, China. Health checkup data of 141,378 subjects aged from 50 to 74 available on January, 2012 to September, 2013 were elicited from Health Information System. We analyzed the prevalence of multi-morbidities according to gender, age, BMI, types of chronic diseases (hypertension, diabetes, coronary heart disease, stroke, and mental health disorder), and lifestyle. Multi-morbidity is defined as the presence of at least two or more disorders. Results: Overall, 42% (95% CI 42.0-42.5) of all subjects had any of the 5 chronic diseases, 5.9% (5.8-6.0) of all subjects were multi-morbid with 6.6% (6.4-6.8) in females and 5.2% (5.0-5.3) in males. Females were more likely to develop multi-morbidity than males (adjusted OR 1.023, 95% CI 1.012-1.078). Prevalence of multi-morbidity among all subjects increased with age (2.533, 2.302-2.787 for subjects aged from 70-74 vs. 1.189, 1.074-1.316 aged from 55-59) and BMI (4.855, 4.076-5.783 for obese subjects vs 1.732, 1.505-1.903 for normal weight subjects). Multi-morbidity is more likely to occur in smokers (1.378, 1.280-1.484) and in alcohol drinkers (1.434, 1.350-1.523), compared to non-smokers and non-drinkers. Conclusion: Multi-morbidity is more likely to occur in female patients, smokers and alcohol drinkers. With the increasing age and BMI, the risk of having multi-morbidity also increased.

AUTHOR(S): Roselle Joy L. Padaoan

UNIVERSITY: St Louis University

TITLE: “Trend of cancer-related mortality in Baguio City, Philippines for the past ten years (2004 to 2013).”

ABSTRACT: Cancer is a worldwide leading cause of mortality among males and females. From 2004 to 2008, cancer is the third leading cause of morbidity and mortality in the Philippines, which increased in 2009. Cancer is a disease caused by both internal and external factors. Internal factors include hormones and genetic mutations. External factors include pollution, infection, lifestyle, diet, chemical exposure and environmental conditions. This is the first study conducted in Baguio City regarding the cancer-related mortality from 2004 to 2013. It is the aim of the study to gain insight on the trend of top leading causes of mortality in Baguio City in relation to cancer. The data utilized in the study was obtained from Baguio Health Department mortality records from 2004-2013. Data was analyzed using Epi Info version 6 software. Results show an increasing number of mortality due to cancer from 99 deaths in 2004 doubling to 180 deaths in 2013. Based on the study, the top five leading causes of cancer-related mortality in Baguio City for the past ten years are Lung cancer (232 deaths), colon (181 deaths), breast (166 deaths), gastric (114 deaths) and liver (98 deaths). This can be attributed to increasing population in Baguio City, increased exposure together with urbanization and improvement in diagnosis and recording system for cancer mortality. Of the top five leading causes of cancer mortality, the study showed that more males die of cancer than females, from ages 25 and above, with the highest mortality among 65 years and above.

AUTHOR(S): Yu-Hsuan Lin

UNIVERSITY: Taiwan Health Promotion Administration, Surveillance and Research Division

TITLE: “Socioeconomic Status, Lifestyle and Cardiovascular Disease Mortality”

ABSTRACT: Socioeconomic status (SES) has long and consistently been reported as predictor of cardiovascular disease. Lifestyle behavior and psychological distress were considered to be two major pathways. The purpose of this study is to examine prospectively the relationship of SES and risk of cardiovascular disease in middle and older aged adults in Taiwan. Methods: We used data from the Social Environment and Biomarker of Aging Study, which comprised a national representative sample of 1023 adults aged 54 and above. Multivariable regression and Cox’s proportional hazard model were applied to explore the association of SES with risk of cardiovascular disease mortality, as well as the intermediate roles of lifestyle behavior and psychological distress in developing cardiovascular disease.

Results: A total of 41 cardiovascular deaths were identified during an 8.2 year follow-up period. The results showed higher SES was significantly associated with protective lifestyle and less psychological distress. Inverse association was observed between increasing number of protective lifestyle factors and the risk of dying as a result of cardiovascular disease. The association between psychological distress and cardiovascular disease mortality was less remarkable among the studied cohort. Efforts to encourage protective lifestyle are essential to reduce the cardiovascular mortality, especially among social economic disadvantaged groups.

AUTHOR(S): Chunhui Chi

UNIVERSITY: Oregon State University, Center for Global Health

TITLE: “Governance in Health Systems: An alternative framework or assessing performance and equity.”

ABSTRACT: The thesis of this paper is centered on the agenda and landscape of health system strengthening: who decides, for what goals and for whose benefit. The motivation for this presentation is to raise several critical questions on the philosophical and ethical foundations of assessing health systems, which includes the health care system as its subsystem. More specifically, we raise the question of governance in health systems. Without explicitly defining two key questions, "for what" and "for whom" a system serves, confusion abounds as to how one could assess the health system's performance. The purpose of this presentation is to investigate three critical questions of health system governance: 1. Who should decide the health system's goal; 2. What is the philosophical and ethical foundation for a framework of health system governance and assessment; and 3. How to implement such a framework and in what way can it contribute to health system strengthening. After critically reviewing the current state of health system governance, we will summarize the limitations of current frameworks. This is followed by identifying and discussing our proposed philosophical and ethical foundation for health system governance. Based on this foundation, we establish an alternative framework of health system governance that will help policymakers and researchers answer the questions of who should decide, and for what and for whom the system serves. Finally, we discuss the implementation of this framework and its implications on assessing health system performance and equity. We also examine the challenges to this framework and future studies.

AUTHOR(S): Chung-Liang Shih

UNIVERSITY: Ministry of Health, Taiwan

TITLE: “Status quo and problems of quality of care and patient safety in Taiwan.”

ABSTRACT: Hospital accreditation system was implemented in Taiwan since 1978, that is the fifth country in the world and the first in Asia. In 1995, government launched the national health insurance with the coverage of 99% citizens as well as more than 90% accredited hospitals contracted. In 1999, the independent non-profit institution, Taiwan Joint Commission of Hospital Accreditation, was established to play as a third party accreditation, and also provide assistance for hospitals to enhance health care quality such as an indicator project, quality improvement tools etc. However, by the end of 2002, a medication mix-up accident occurred in an Obstetrics and Gynecology Hospital, resulting in seven neonates with resuscitation and one dead. This event is triggering government emphasis on patient safety as well as promotes measures and actions to create safe environment and patient safety culture. In this workshop, we will share the experience of patient safety actions including nation-wide reporting system, national safety goals, and safety culture survey.

AUTHOR(S): Catherine Hu

UNIVERSITY: Chinese University of Hong Kong

TITLE: “Analyzing Health Care Service Utilization between Native Hong Kong People and Mainland Immigrants”

ABSTRACT: In Hong Kong, over 95% of the population are second and third generations of immigrants. Mainland immigrants constitute the major proportion. This study analysed health status of Mainland immigrants and the native Hong Kong people under 2009 Thematic Household Survey (THS). Estimations in choosing health care service utilization were conducted among the captioned populations, through understanding demographic and socioeconomic factors. Methodology: Illness records and demographic data of a representative sample of 27,845 people were derived from the 2009 THS, including 19,519 native people and 8,326 Mainland immigrants. The relationship between the choice of health care service utilization and people's nativity were explored using stepwise logistic regressions as well as liner regression after adjusting for sex and age. Results: Nativity was associated with types of health service used both in visiting private western doctor/clinic and visiting A&E department, along with various predisposing and need factors. However, nativity was not associated with neither in visiting public western doctor/clinic nor visiting Chinese medicine doctor/clinic. Instead, nativity, smoking habit, gender, and occupation predicted high risk of suffering chronic disease. Frequency of visiting private western doctor/clinic was statistically significant between native people and Mainland immigrants. Conclusion: Mainland immigrants are less likely to choose to see Private Western doctor/clinic but are more likely to choose to go to the A&E department compared with the native people. Mainland immigrants are more vulnerable to chronic diseases compared with native people. Immigration status is a significant predictor of frequency in seeing private western doctor/clinic, $r=-0.029$ and $p=0.007$.

AUTHOR(S): Ruel Caricativo, Erlinda Castro-Palaganas & Marian Sanchez

UNIVERSITY: University of the Philippines, Department of Economics and Political Science, College of Social Sciences

TITLE: “When the healthcare system bleeds: Migration of human resources for health from the Philippines.”

ABSTRACT: The migration of human resources for health (HRH) from the Philippines has increased dramatically in recent decades. This has critical consequences for the “source” countries, especially on the issue of sustainability of health care systems. These consequences now inform the debates regarding the reliance of the Global north for migrant health workers from the Global South. It is this situation that informed the research entitled Source Country Perspectives on the Migration of Highly Skilled Professionals: Causes, Consequences and Responses, a global five country research project funded by the Canadian Institutes of Health Research through the University of Ottawa with the University of the Philippines Baguio as a partner. Utilizing mixed method, the research examined HRH migration as a continuing phenomenon influencing the health, social, and educational institutions of the country. The ethical and political issues surrounding the international recruitment of HRH from developing countries were also reviewed. Based on the triangulated findings of a scoping review of the literature, an HRH survey, and stakeholder interviews, this research highlights the causes and consequences of the out-migration of Filipino HRH and puts forward short and long term alternatives to current migration policies and measures. HRH is not a cultural phenomenon nor is it solely an economic choice. It is a dynamic process affected by the interplay of various determinants that include individual, societal, economic, political, and socio-cultural issues and problems. International recruitment of HRH likewise reflects the unequal political and economic relationships between source and destination countries.

AUTHOR(S): Rajasekhar Balasubramanian

UNIVERSITY: National University of Singapore, Civil and Environmental Engineering

TITLE: “Smoke Haze in Southeast Asia: Public Health Implications”

ABSTRACT: Smoke haze pollution, caused by uncontrolled vegetation and peat fires, has become a public health problem of global interest. A number of field studies, controlled laboratory experiments and modeling investigations have been carried out over the years in several parts of the world to understand the sources, formation mechanisms, and evolution processes of smoke haze pollution for making air pollution control measures. This episodic air pollution problem not only affects air quality, visibility, and climate, but also exerts adverse effects on human health. Most studies of the health effects of wildfire exposure are based on occupational and epidemiological observations. There are only a few reports describing the toxicity of wildfire particulate matter (PM). However, it remains unclear whether differences in the size fraction(s) of the smoke and/or chemical composition(s), would influence the specific health impacts. Wild fires occur in Indonesia almost every year during the dry season due to uncontrolled land clearing activities. The resultant particulate emissions are transported by trans-boundary winds into other countries in the South East Asia (SEA), particularly Singapore and Malaysia. The intensity of wildfire smoke and its impact on air quality and public health vary from year to year according to fuel type, combustion conditions, and meteorology. One of the worst haze episodes in the history of SEA occurred in June 2013. We evaluated the in vitro toxicity of size-fractionated PM and its chemical composition during the 2013 smoke haze episode for the first time. The public health implications of this study will be discussed.

AUTHOR(S): Mazrura Sahani, Mohd Talib Latif, Wan Rozita Wan Mahiyuddin, Mohd Firoz Khan, Norhayati Mohd Tahir

UNIVERSITY: Universiti Kebangsaan Malaysia, Environmental Health and Industrial Safety Program, Faculty of Health Sciences

TITLE: “Haze air pollution, trend and health implications in Malaysia”

ABSTRACT: The Southeast Asian (SEA) haze events due to forest fires as well as burning of agricultural residues are recurring phenomenon since the 1980s, the worst one being in 1997. Every year particularly in two seasons namely the south-westerly winds (between June and September) and north-easterly monsoon (December to March) the intensified haze appears in Malaysia. During this period, the visibility reduces and their chemical profiles were featured by unique characteristics. Local air monitoring data had linked this severe haze episode to high concentration of PM10. The concentrations of organic compounds were observed greater during the haze episodes than other periods in a year and some of them were suspected of trans-boundary origin. Recurring of these haze episodes have become an issue of great concern due to the severe effect that they have on human health. Few case studies on the health effects of air pollution and haze will be presented. Exposure of haze events in the Klang Valley region occurred in 2000-2007 examined using a case-crossover design showed immediate and delayed effects on mortality. An economic assessment on daily hospital inpatients due to acute exposure to trans-boundary smoke haze pollutions that occurred in 2005-2009 in Klang Valley reported an estimated annual loss of USD\$91,000. As air pollution and haze episodes remain a public health hazard in Malaysia, the government has strategies and measures which aim to achieve better air quality locally and regionally.

AUTHOR(S): Szu-Ying Chen & Chang-Chuan Chan

UNIVERSITY: National Taiwan University

TITLE: “A Review of 20 Years Research in Health Effects of Ambient Air Pollution in Taiwan”

ABSTRACT: Ambient air pollution (AAP) has become an important public health issue in Taiwan following the rapid industrialization, motorization, and urbanization in the past decades. We reviewed the scientific research in the health effects of AAP in Taiwan, and the findings are described as below: (1) Numerous epidemiological and human controlled studies have demonstrated AAP is causally related to worsening respiratory symptoms, impaired lung function, increased pulmonary inflammation, and increased incidence of respiratory diseases, including, asthma, chronic obstructive pulmonary disease, and pneumonia. (2) Consistent evidences from epidemiological and experimental studies suggest causal relationships between AAP and changes in cardiovascular metrics, including blood pressure, heart rate variability, and cardiac contractility, and vasotone, as well as increased cardiovascular morbidity and mortality, including myocardial infarction, heart failure, arrhythmias, and stroke. (3) Long-range transport air pollution contributes cardiorespiratory diseases. (4) Individual and meteorological factors may modify relationships between AAP and cardiorespiratory effects. (5) AAP is associated with increased systemic inflammation, oxidative stress, coagulation, and DNA damage, which are considered as parts of biological pathway in linking AAP and cardiorespiratory diseases. (6) Several studies reported the associations between AAP with allergic responses, reproductive and developmental diseases, and cancers; however, the evidence is insufficient to determine the causal relationships. Several undetermined issues are needed to clarify in the future, including the improvement exposure assessment for AAP, the effects of specific chemical constituents or sources-specific AAP, long-term effects of AAP on various clinical outcomes, and the gene-environmental interaction on relationships between AAP and clinical outcomes.

AUTHOR(S): Mohd Talib Latif, Nor Hayati Mohd Rais, Dorena Dominick, Md Firoz Khan, Mazrura Sahani

UNIVERSITY: Universiti Kebangsaan Malaysia, Environmental and Natural Resource Sciences

TITLE: “Air quality in selected industrial areas in peninsular Malaysia”

ABSTRACT: This research was conducted to study the status of air quality at selected industrial areas in Peninsular Malaysia. Hourly air quality data was obtained from Malaysian Department of Environment (DoE) between 2010 and 2012. A total of seven major air pollutants namely PM10, CO, SO₂, NO, NO₂, NOX and O₃ as well as three meteorological parameters (temperature, wind speed and humidity) were analysed for air quality status and its correlation with meteorological parameters. Statistical methods such as Principal Component Analysis (PCA) and Pearson Correlation were used to determine and predict the main sources of air pollutants. The results show suspended particulate matter recorded as PM10 and O₃ are two main parameters which usually exceeded the limit suggested Recommended Malaysian Air Quality Guideline (RMAQG). Diurnal pattern of air pollutants show that the concentration of pollutants was influenced by human daily activities and motor vehicle emissions. Most of the concentrations of the determined air pollutants were found to be higher between June and September each year due to influence of biomass burning from Sumatra, Indonesia. PCA results show that motor vehicle and industrial activities are the main sources of pollutants in ambient air other than biomass burning episodes. Meteorological parameters such as temperature, wind speed and humidity influence the concentration of air pollutants in the study areas.

AUTHOR(S): Pornpun Watcharaviton, Chang-Chuan Chan, Kuen-Yuh Wu, Chia-Pin Chio

UNIVERSITY: National Taiwan University

TITLE: “Estimating cancer risk of residents among Industrial Estate areas Roadside areas and Residential areas exposed to benzene in different region, Thailand”

ABSTRACT: High concentrations of benzene in ambient air in difference region of Thailand are considered to be most serious issue. Benzene is classified as a "known" human carcinogen (Category A) by all routes of exposure by International Agency for Research on Cancer (IARC, 1986) and currently levels of public exposure to Benzene in some areas is exceed $1.7 \mu\text{g m}^{-3}$ in Ambient Air Standards of Thailand. The aim of this study is to estimate cancer risk for residents among Industrial Estate areas, Roadside areas and Residential areas exposed to benzene in different region, Thailand. The data on environmental benzene concentration in Thailand were collected by Pollution Control Department of Ministry of Natural Resources and Environment, Bangkok, Thailand, during January 2009 to December 2009. Air samples were collected once a month covering both weekday and weekend at 15 stations, which included 6 roadside sites, 3 residential sites and 6 Industrial Estate site. Each air sample was collected for a period of 24 ± 1 hour. Benzene measurement techniques were based on the US.EPA Method TO-15. The individual lifetime cancer risk can be determined by using quantitative estimate of carcinogenic risk from inhalation exposure (IRIS/USEPA, 2003). Annual arithmetic averages of benzene concentrations (ranges) were such as $4.79 \pm 1.90 \mu\text{g/m}^3$ (range= $0.73 - 11.0 \mu\text{g/m}^3$) in roadside areas, and $3.10 \pm 2.87 \mu\text{g/m}^3$ (range= $0.34 - 33 \mu\text{g/m}^3$) in Industrial Estate area, and $2.36 \pm 1.32 \mu\text{g/m}^3$ (range= $0.88 - 3.6 \mu\text{g/m}^3$) in residential areas, respectively. The individual lifetime cancer risk can be determined by using quantitative estimate of carcinogenic risk from inhalation exposure (IRIS/USEPA, 2003). The calculated lifetime cancer risk ranged from $1.062\text{E-}6$ to $1.465\text{E-}5$ in Bangkok. There were about 1 – 15 cancer cases/million of population over a 70-year period among people living in different areas and region of Thailand. The benefits varied greatly in different areas and emission source and different manage strategies should be carried out to prevent and protect human health effectively.

AUTHOR(S): Junko Yasuoka

UNIVERSITY: University of Tokyo

TITLE: “Global health research and education through community-based malaria project in Cambodia”

ABSTRACT: Malaria continues to be a major public health problem in Cambodia. To promote community-based malaria control in remote areas, the Cambodian government has been continuing the Village Malaria Worker (VMW) project since 2001. To strengthen this project, we have been working on a joint research project with the government since 2007 and also using this opportunity as a global health practicum for graduate students. Our long-term research on VMWs can be divided into three research phases. In baseline phase in 2008, we identified VMWs' knowledge of malaria transmission and vector breeding places as significant determinants of both the quality of VMWs' services and the variety of their actions for malaria prevention and vector control. During scale-up phase in 2008-2010, we found that VMWs' overall service quality and actions improved despite rapid scale-up of the VMW project. In community acceptance phase after 2010, we identified VMWs' service quality as one of the most important determinants for caregivers' utilization of VMWs' services. This project has also been an important educational opportunity, which provides us with tools to educate our graduate students. We involve our students in every research process so that they gain hands-on experiences in questionnaire development, ethical approval procedure, data collection, analysis, and thesis/paper writing. By participating in a community-based disease control project and by directly communicating with local people, students gain invaluable field experiences in addition to research skills and were also successful in publishing their research findings in international journals.

AUTHOR(S): Putu Sutisna, Dewa Putu Widjana, I Nengah Kapti

UNIVERSITY: Warmadewa University Faculty of Medicine and Health Sciences

TITLE: “The recent situation of *Taenia solium* cysticercosis in Bali, Indonesia.”

ABSTRACT: *T. saginata* taeniasis is more frequently found than *T. solium* taeniasis, but its clinical outcome is commonly mild or negligible, since its infection occurs only in the intestine. On the other hand, intestinal infection with *T. solium* tends to have more serious outcome due to its ability to cause infection with its larval stage in different tissues or organs (cysticercosis). The first cases of *T. solium* cysticercosis in pigs in Bali were reported by Le Coultre in 1928. During 1960 - 1999 sporadic community cases of cutaneous cysticercosis were reported from different localities outside and inside Bali, affected 237 people of Balinese ethnicity, by histologic and serologic measures. Ngoerah in 1975 reported 4 cases of cerebral cysticercosis treated in Wangaya Hospital, Denpasar, while Sudewi between 1995-1998 treated 25 cases of cerebral cysticercosis in Sanglah Hospital, Denpasar, and cases continue to present in this hospital. In 2012 a field study by researchers from Asahikawa Medical College, Japan, Indonesian Department of Health, Udayana University, and Warmadewa University found 2 cases of *T. solium* taeniasis and 1 case of ophthalmocysticercosis in a girl aged 10 years, in the Village of Kubu, Karang Asem Regency. Despite its being rare, *T. solium* taeniasis can cause cysticercosis with its bad outcomes due to infection in the brain, spinal cord, or eye.

AUTHOR(S): Budi Haryanto

UNIVERSITY: University of Indonesia, Department of Environmental Health

TITLE: “Public Health Vulnerability on Dengue Hemorrhagic Fever to Climate Change in Indonesia: Assessment, Projection and Mapping.”

ABSTRACT: To develop a vulnerability assessment and projection of DHF and climate variability complemented with distribution maps for each of 20 cities/districts in 5 provinces: West Sumatera,

Jakarta, East Java, Bali and Central Kalimantan, an Ecological time-series study design was implemented to quantify the relationships between time-series data climate of temperature and rainfall and incidence of DHF from 1999 to 2012. Vulnerability assessment model was implemented to identify and quantify the vulnerable population. Spatial mapping distribution on Aedes mosquitoes' breeding places including its radius coverage of flying distance was developed to identify the sites at risk. The incidence of DHF per 100 000 populations are found high almost in all of the cities/districts, with the range of 0.2 to 135.5. However, no one of city/district showed a significant association of its climate variability and the incidence of DHF. The Coping Range Index (CRI) showed increasing trend of vulnerability in current years among the cities/districts, which was dominated by very vulnerable (level 5) and vulnerable (level 4). About 90% of cases stayed inside of the Aedes mosquitoes' flying buffer zone. The findings suggest all of the cities/districts under study are having statuses vulnerable and very vulnerable to the DHF caused by climate variability. It will put million more people at risk to DHF disease in the near future. Assessments and mapping of the potential human health impacts of climate variability and change are needed to inform the development of adaptation strategies and policies to lessen projected adverse impacts.

AUTHOR(S): Josefina Santos

UNIVERSITY: University of the Philippines, Broadcast Communication Department, College of Mass Communication

TITLE: "Combating TB using multi-technologies."

ABSTRACT: While the cases of pulmonary tuberculosis in the Philippines is declining in 2013, there was still a need to conduct a nationwide integrated management of communication materials for the prevention and control of TB or tuberculosis in the Philippines in order to reduce by 50% the number of cases (especially through changing health seeking behaviours of Filipinos). The University of the Philippines (UP) College of Mass Communication through its radio station DZUP embarked on a media campaign in 2013 in order to address misconceptions about TB and to encourage persons with the disease to seek help from their nearest health centers. The media campaign involved the airing of public service announcements on radio and in television, a drama special in a popular TV program, two types of radio drama, and interviews; print materials; and the launching of two on-line sites—one formal and the other informal. Both on-line sites are supported by pages in social networks and other promotional materials. Initial results of the survey conducted by the team shows a high recall of the contents of materials broadcasted during the period. Also significant is the increasing number of younger people getting their information through the internet. This paper intends to share the results of the studies on the effectiveness of the use of broadcast and internet materials on their target audiences during the period covered by the campaign.

AUTHOR(S): Feng-Jen Tsai

UNIVERSITY: Taipei Medical College, Master Program in Global Health and Development

TITLE: "New instrument for virus and benefit sharing— The development and potential impact of Pandemic Influenza Preparedness Framework"

ABSTRACT: The experience of SARS in 2003 reminded the world the need for global cooperation in preventing and controlling the future emergence of international disease threats. Therefore, the International Health Regulations 2005 (IHR 2005) was adopted by the World Health Assembly in 2005. The IHR 2005 represents a major development in the use of international law for public health purposes. However, Indonesia's refuse for sharing H5N1 virus samples with WHO and global health community reflected the imbalance between virus sharing and the benefit from the sharing for long. After years of

negotiations, the World Health Organization finally reached agreement on a Pandemic Influenza Preparedness Framework for the sharing of influenza viruses and access to vaccines and other benefits (PIPF) in April, 2011. This framework represented a milestone in global governance for health. It not only regulated virus-sharing system and benefit-sharing system, but also accomplished for equity by requiring industry contributions to WHO's Global Influenza Surveillance and Response System (GISRS)'s operating costs. In addition, the framework authorized the Director General of WHO to sign the contract (SMTA 2) with pharmaceutical companies for further potential contribution from the industry. However, the Public-Private Partnerships design of the PIP framework not only increase the influence of private sector on public health issue, the potential Conflict of Interests (COIs) might further damage the public trust of WHO. This study aimed at exploring the possible impact of the development of PIP framework on infectious disease control and global governance.

AUTHOR(S): Nenita Panaligan, Diane Nuestro, Lezzie Noah Oloteo, Shelly Mae Ramos.

UNIVERSITY: Cavite State University

TITLE: "Disaster management preparedness of the members of local disaster risk reduction and management (ldrrm) team in coastal areas of Cavite."

ABSTRACT: A study was undertaken to examine the disaster management preparedness of LDRRM team members in selected coastal areas of Cavite. Specifically, the study described the profile of the municipalities in coastal areas of Cavite; described the profile of the LDRRM team members; determined the level of knowledge of LDRRM members on management of disasters in terms of: mitigation / prevention, response, coordination, and rehabilitation and recovery; determined the attitude of LDRRM members towards the management of disasters; determined the level of skills of LDRRM members towards the management of disasters; and ascertained if there are significant differences between: the level of knowledge of LDRRM members in the management of disasters when grouped by profile of municipality and profile of LDRRM members; the attitude of LDRRM members towards the management of disasters when grouped by profile of municipality and profile of LDRRM members; the level of skills of LDRRM members in the management of disasters when grouped by profile of municipality and profile of LDRRM members. Data suggest that the manpower size of the LDRRM team has affected several key areas of disaster management such as: the level of knowledge members in disaster management, the attitude of members in disaster management; and the level of emergency response skills of the members. Data indicate that the higher the members the LDRRM team has, the higher would be the level of knowledge of members in disaster management, the more positive the attitude of members in disaster management; and the more skillful the members are at performing emergency response skills, and vice versa. It was found that the members of LDRRM team in five coastal areas of Cavite generally held a "positive" attitude in the management of disasters. Rosario LDRRM team had the most favorable attitude in the management of disasters. Furthermore, LDRRM teams in five coastal areas were most skillful in the following emergency response: performing first aid procedures for nose bleeding; stopping bleeding and then bandaging a small cut on the person's forearm; performing first aid procedures for burns; performing first aid procedures for drowning; and performing treatment procedures for sprains and strains. The budget of municipality in disaster management positively affects the attitude of LDRRM team members towards disaster management and the level of knowledge of team members with regard to coordination in disaster management. Statistical data showed that the higher the budget in disaster management, the more positive the attitude of the LDRRM team members towards disaster management, and vice versa. Likewise, the higher the budget in disaster management, the higher the level of knowledge of the members in the area of coordination, and vice versa.

AUTHOR(S): Maksim Khotimchenko

UNIVERSITY: Far Eastern Federal University, School of Biomedicine

TITLE: “Influence of the environmental contamination on child health in Primorsky Region (Russia) and perspective methods for treatment of the heavy metal induced disorders.”

ABSTRACT: Vladivostok city is located in the southern extremity of Muravyov-Amursky Peninsula in Primorsky region of Russia, which is about 30 kilometers (19 mi) long and approximately 12 kilometers (7.5 mi) wide. The city's main industries are shipping, commercial fishing, and the naval base. Local ecologists have claimed that much of Vladivostok's suburbs are polluted and that living in them can be classified as a health hazard. The pollution has a number of causes, such as shipbuilding and repairing, power stations, printing, fur farming and mining. We have found elevated level of Cu, Fe, Sr, Co, Mn and Pb in children hair regardless if they lived in suburbs or in the center of the city. Excess of the heavy metal ions was associated with chronic respiratory disorders and increased frequency of acute respiratory viral diseases. The various agents were proposed for prevention of intestinal absorption of the heavy metal ions and acceleration of their elimination from the body. But the majority of them were not found useful because of their low efficiency, high cost, and increased risk of toxic effects associated with mineral imbalance. The results of the serial studies showed that administration of the dietary supplement containing pure calcium alginate enhance elimination of the lead ion from the body through kidney and intestine. Effectiveness of such treatment was proved by reduced hair level in children after one month of calcium alginate administration. The results obtained in our study correspond to our findings of previous in vitro and in vivo experiments indicating that alginates may be successfully used as for treatment as for prevention of the heavy metal poisoning of people living in polluted regions.

AUTHOR(S): Saovalux Dullyaperadis

UNIVERSITY: Chulalongkorn University, College of Public Health Science

TITLE: “Older People and Community’s needs in Time of Flood Disaster, Saraburi Province, Thailand.”

ABSTRACT: Saraburi province was one of central provinces of Thailand affected by the flood. The purpose of the study was to explore the older people and community’s needs in time of flood. Methodology: Three sub-districts, Ban Moh district, Saraburi province were purposively selected. A qualitative study was employed with 29 participants. Health Promoting hospitals’ directors and nurses were in-depth-interview and in formal interview. Two focus groups were conducted (elderly/caretakers and village health volunteers groups). Results: The needs were classified into three themes: physical resources, human resources and healthcare needs. Older people needed mainly on physical resources (e.g. clean drinking water, cooked food, medicine, life jacket and boats); and healthcare needs (e.g. more health staffs, family caretakers taking care of them during and after flood). Community needed physical resources (e.g. community radio broadcast system, boats, mobile toilets, food and medicine); human resources (e.g. well-trained health personnel on emergency preparedness); and health care need (e.g. assisting the elderly with bed ridden and chronic conditions). Furthermore, the investigation showed that the community needs flood management plan, regular drills and trainings of flood preparedness and the promoting the cooperation among the elderly and community health staffs during flood. Conclusion and Recommendation: Both older people and community need physical resources, human resources and healthcare need in time of flood. To serve their needs, holistic approach with multi-disciplinary team is necessary.

AUTHOR(S): Chung-Yi Tai

UNIVERSITY: National Taiwan University, Institute of Health Policy Management

TITLE: “To End or To Hold: The Decision terminally ill patients have to make and how.”

ABSTRACT: Background: In the recent years, there has been a growing concern in the literature about issues related to end-of-life care of terminal patients. Studies have documented that many patients died prolonged and painful deaths and received unwilling, expensive, and invasive care. Patients’ physical and emotional suffering at the end of life can be profound. It is a big challenge to make decisions of providing appropriate care at the end of life. Methods: A comprehensive literature search was conducted through an online search of four databases which included PubMed, Embase, Web of Science and the Cochrane Library for articles published between 1980 and 2011. Key factors were identified to address the issues related to decision making process at the end-of-life for terminally ill patients. Results: 12 relevant papers which met the inclusion criteria were identified and evaluated. Preparation for death, willing to communicating with others, pain and symptom management, achieving a sense of controlling, being treated as a “whole person,” and respecting individual treatment preferences were the important factors associated with the decision to end life by terminally ill patients. It is also found that shared decision making and full information disclosure were the key determinants of ending life. Conclusions: The review of the literature provides insight into the factors influencing decision to end life in terminally ill patients in ICUs. Social, emotional, and organizational elements should be further addressed to study the decisions to end life to help the patients, healthcare professionals and families at this final stage of life.

AUTHOR(S): Juhwan Oh; Jongho Heo; Naoki Kondo; Youngsun Ro; Jong-koo Lee

UNIVERSITY: Seoul National University College of Medicine

TITLE: “Values and Subjective Well-being among Adolescents in Three Asian Countries”

ABSTRACT: Poor well-being among adolescents has emerged as an important social problem due to the increasing prevalence of depression, mental disorders, suicidality, and violence. However, it has been criticized that the impact of policy efforts was not satisfactory so far. One of the reasons for the lack of impact was the inconsistency between values pursued by the target populations and values that the policies were based on. This study aims to identify prevailing values for South Korean, Japanese, and Chinese adolescents and examine the relationship between the values and individual subjective well-being (SWB) using survey data collected from about 2,000 middle and high school students (7th to 12th school grade) from each country in 2008. Firstly, explanatory factor analysis was conducted to identify salient personal values from adolescents across three countries. Subsequently, multiple linear regression analysis was conducted to examine the relationship between personal values and adolescent SWB after controlling for socio-demographic characteristics. We found that communalism was positively associated with adolescent SWB across all three population groups. Success orientation value in Japanese and Chinese; gender-egalitarianism in Korean; altruism and affiliation-orientation in Japanese; and paternalism in Chinese were associated with adolescent SWB. Additionally, we found only one interaction effect among Korean adolescents: the SWB of those who had higher self-rated academic achievement was more higher than lower self-rated academic achievement when they had individualism while the SWB was lower if they had communalism. Based on our findings, all the three East Asian adolescents may benefit from policy efforts based on communalism.

AUTHOR(S): Chaowei Fu

UNIVERSITY: Fudan University

TITLE: “Excessive body weight increased the incident risk of diabetes in transforming Rural China.”

ABSTRACT: To explore the causal associations of overweight and obesity with diabetes mellitus (DM) in rural adults, we followed up 1908 subjects, who were aged 18 to 64 years and were free of diabetes at baseline, for approximately two years in the Rural Deqing Cohort Study, Zhejiang Province, China. Fasting plasma glucose (FPG) was tested and DM cases were those who had a FPG level of 7.0 mmol/L or more or receiving antidiabetics at follow-up. Body mass index (BMI) was used to group subjects into three categories: obesity (more than or equal 30.0), overweight (25.0 to 29.9) and normal weight (less than 25.0) at baseline. Cox regression model was used to examine the association between obesity and DM, and adjusted hazard ratios (aHRs) and 95% confidential intervals (CI) were calculated. The proportions of overweight and obesity at baseline were 15.1% and 1.4% respectively. There was a significant increase of 15% (aHR=1.15, 95% CI: 1.03-1.29) in the incidence of DM with 1 unit increase in BMI after adjustment for age and gender. Overweight or obese individuals had a significantly higher incidence of DM than those with normal weight (aHR = 2.42, 95% CI: 1.05-5.08 for overweight and aHR = 6.51, 95% CI: 1.51-28.05 for obesity). Conclusively, excessive body weight was an important risk factor of DM in this transforming rural Chinese population with relatively low body weight.

AUTHOR(S): Sophia Lin

UNIVERSITY: University of New South Wales, School of Public Health and Community Medicine

TITLE: “Trends in saturated fat intake in Pacific Island countries and territories, 1961-2009.”

ABSTRACT: INTRODUCTION: Rapid socio-economic changes in Pacific Island Countries and Territories (PICT) have resulted in significant alterations to population diets. Previous research has suggested increasing imported foods has increased consumption of animal fat, and subsequently saturated fat (SFA) which is strongly associated with increased risk of atheroma and coronary heart disease through increasing serum cholesterol. The aim of study was to examine long-term secular trends in SFA consumption in PICTs between 1961 and 2009. METHOD: Total fat intake of each food item in the food supply data from the Food and Agriculture Organization database was assessed for fatty acid composition using the United States Department of Agriculture’s National Nutrient Database. RESULTS: SFA consumption vary widely, ranging from 7-20% of total energy intake (2009). Trends in PICT are stable, except Kiribati where SFA consumption has fallen from 25% to 16% of total energy. Socio-economic development is not associated with SFA intake. DISCUSSION: The stability of SFA consumption may be due to the replacement of high-SFA coconut, which is traditionally consumed in high amounts, with other high-SFA foods including animal meat. In Kiribati, where food supplies are almost exclusively from imports, SFA decrease may be due to refined carbohydrate replacing coconut instead of animal meat. Research is underway to assess delayed effects of population dietary fat changes on non-communicable disease prevalence and related mortality in PICTs.

AUTHOR(S): Peiyu Wang

UNIVERSITY: Peking University, Department of Social Medicine and Health Education

TITLE: “Non-communicable diseases and Health Management in China”

ABSTRACT: During the past 30 years, Non-communicable diseases (NCD) showed a continually rising and reached a rather high level: the prevalence of hypertension is over 30%, that of diabetes mellitus is

about 10%, overweight and obesity together arrived 40%. NCD, together with the environment pollution and health care system reform, has become 3 major public health problems in China. The point for control of NCD is control of risk factors. Therefore, the health management was set up from 2005 in China as a new discipline, profession (health management specialist) and effective technique for NCD. It brought some hopes and innovation to the disease control, also caused some confusions. Academically, health management mainly uses the ideas and methods of epidemiology, health promotion, nutrition and clinical medicine to control the health risk factors and achieve the better health. In several year practices, the health management has showed its big potential as well as good benefits for health surveillance and health protection. On the other hand, its development is not agreed with the relevant policies. There were no special positions for health management specialist in corresponding institute. They are trying to find out a sustainable and applied way to do the health management as well as appeal for relevant policy. Moreover, the discipline needs to develop its capacity and improve its level.

AUTHOR(S): Wilfredo I. Jose

UNIVERSITY: University of the Philippines, Department of Chemical Engineering

TITLE: “Empowering Engineers as Advocates and Promoters of Health and Wellness.”

ABSTRACT: Professionally, health and wellness is usually the concern of health and medical practitioners. The analogy and similarity between biological and engineering systems are striking that engineers become interested in studying potential applications. The human body is more complicated than many engineering systems, and applying engineering principles to the human body can logically improve its performance. Thus, we can consider the introduction of a new field such as Health and Wellness Engineering, which can be given as an elective subject for engineering students and as a continuing education course for engineers. In so doing, we can empower engineers to be promoters of health and wellness. The basis of this course is the application of five major principles (mass balance, energy balance, momentum balance, charge balance, and moment balance) to the human body. About 2 dozen auxiliary principles (fundamentals usually studied in physics and chemistry) supplement the major principles. With these principles, we can describe how the human body behaves properly or improperly (healthy or unhealthy, well or unwell). The proposed course can serve as a review of engineering principles to practicing engineers since the human body is comparable to or even more complicated than machines and engineering processes/systems. The principle of preventive maintenance for engineering systems can also be applied to the human body. Moreover, with the brain as a neural network system, the human body is like an autonomous computerized machine. With the guidance of engineers with a background in health and wellness engineering, people will become more health conscious.

AUTHOR(S): Terry Schmidt

UNIVERSITY: University of California at Irvine, Program in Public Health

TITLE: “Connecting the Dots: Global Health Policy, Law, and Diplomacy.”

ABSTRACT: One of the most significant developments in the field of global health in the last decade is the rise of the new field of Global Health Policy, Law, and Diplomacy. In addition, described will be the organization of undergraduate researchers in qualitative leading to involvement and success. 1. Describe a process to filter, understand, and evaluate Global Health issues from the perspective of Global Health Policy, Law, and Diplomacy. 2. List the major components of Global/International Health Policy, Law, and Diplomacy. 3. Describe the role and rule of law in Global Health Diplomacy. 4. Participate with panel members in a discussion on these specific issues and interests of attendees.

AUTHOR(S): Carrie Zhao & Terry Schmidt

UNIVERSITY: University of California at Irvine, Program in Public Health

TITLE: Innovative Ways of Providing Global Health Education

ABSTRACT: The 2014 International Emory Global Health Case Competition involved 24 schools from around the world, bringing together elite students from top schools to promote awareness of and to develop innovative solutions for 21st century global health challenges. Case competitions, like the Emory Competition, promote public health education by supporting the learning, decision-making, and capacity of students. It places students in the role of decision makers, fostering critical thinking and analysis. In addition, these competitions provide students with exposure to local and national professionals, offering opportunities to network with peers and global leaders. The motivating effect of competition encourages teams to collaborate and innovate. Each team was required to have students from at least three different disciplines. The University of California, Irvine (UCI) team was made up of six graduate students from the schools of Business, Medicine, and Public Health. The multidisciplinary teams focused on developing innovative solutions for reforming the World Health Organization (WHO). The teams addressed the complex organizational and political issues of the WHO and made recommendations that would allow the WHO to successfully deal with emerging health issues. The team was mentored by Terry Schmidt, DrHA, a professor in the Program of Public Health and the Paul Merage School of Business. The guidance of Dr. Schmidt and other faculty members were critical to the UCI team's success.

AUTHOR(S): HE Khoo, ACH Fong, HCK Lim and SC Hooi

UNIVERSITY: Yong Loo Lin School of Medicine (YLLSOM), National University of Singapore.

TITLE: "Introducing a new Global Health and Leadership Track in an undergraduate medical curriculum"

ABSTRACT: The Yong Loo Lin School of Medicine (YLLSoM) at the National University of Singapore has a five-year curriculum and graduates 250 doctors annually. More than 90% of the graduates have participated in at least one community involvement project in Singapore while 50% have participated in an international one. Many of these projects have been initiated by students and are largely organized by them. The impact of several of these projects has not been rigorously documented and their long-term sustainability is not clear. In 2013, the educational leadership at YLLSoM proposed that community involvement projects should be placed on a more academic and sustainable basis. Toward that end, a curricular track with clear educational outcomes for the student participants has been drafted. As a preliminary step, a workshop was piloted over three mornings in July 2014 where students learnt the skills of needs analysis, program design, project implementation and monitoring and evaluation. We will present the outcomes and student feedback from this workshop as well as discuss our rationale for introducing this new educational track in our undergraduate medical curriculum.

AUTHOR(S): Patou Masika Musumari, Teeranee Techasrivichien, S. Pilar Suguimoto, Christina El-saadi, Bhukumusa Lukhele Wellington, Masako Ono-Kihara, Masahiro Kihara

UNIVERSITY: Kyoto University, Department of Global Health and Socio-epidemiology

TITLE: "Need for documented examples to outline the multidisciplinary and interdisciplinary nature of global health"

ABSTRACT: Global health has gained extensive momentum over the past decade and has been vehemently embraced in the academia, governmental and international agencies both as a generic term to

reflect the state of health of the global population and its determinants, and as a set of activities including research, education, and practice designed to address health issues that transcend national borders. The number of academic institutions with global health programs or initiatives has rapidly grown and continues to flourish. One of the strongest assets of global health is that its endeavors are built on a multi- and interdisciplinary perspectives as well as a collaborative framework to address health issues of global concerns. Thus, and as it has been stated elsewhere, relevant global health programs should integrate perspectives from a range of disciplines including but not limited to, cultural anthropology, psychology, economics, engineering, business management, policy, law, and public health and medicine. However, documented examples of how different perspectives and disciplines are constructively put together to generate understandings and solutions of real-world health problems are not readily available in the literature. To address this literature gap, our research team is currently documenting evidence of multi- and inter-disciplinary global health research. Such information could facilitate global health education and could help to the development of a conceptual framework of the interplay of different fields in global health.

AUTHOR(S): Yang LI, Ji LIANG, Shasha WANG, Xiaoyu HU, Xu QIAN

UNIVERSITY: Fudan University, School of Public Health, Key Laboratory of Public Health Safety of Ministry of Education,

TITLE: “Post-abortion Care Service Needs among Fertile Women Seeking Induced Abortion in Shanghai, China”

ABSTRACT: Background: In China, the number of induced abortions increased to 18 million in 2008 with more than half being repeated abortions. Abortions not only increase the risks of hemorrhage, infection and infertility, but also aggravate disease burden. Therefore, a needs assessment for post-abortion care (PAC) among women seeking induced abortion is important to suggest a strategy to promote PAC and reduce repeated abortions in Shanghai. **Methods:** Using stratified and cluster randomized sampling, 813 women from 20 hospitals, between the ages of 15-49 who were seeking abortion services in Shanghai were recruited. Questionnaires were used to collect data on participants' health status and PAC needs, and analyzed by descriptive analysis, chi-square test and multiple-regression analysis. **Results:** About half of the survey participants experienced repeated abortions. 15.4% had abortions in the past year. Comparing to Shanghai local women, migrant women suffered more risks (OR=1.67) when adjusted for age. 49.7% of abortions were associated with contraceptive non-use; 50.3% were related to contraceptive failure. Contraceptive failure was due most often to problems in the rhythm method (26.8%) and condom use (34.9%). Participants had poor knowledge about abortions and contraception. More than 80% of participants recognized the importance of comprehensive PAC, and 60% were willing to accept these services. **Conclusion:** Contraceptive knowledge and practice is the key for preventing form repeated abortion. Hospitals should provide more comprehensive and personalized PAC including the advice of contraceptive uptake and afterwards follow-up. Relevant policies and interventions should be promoted to integrate high-quality PAC into essential abortion service packages.

AUTHOR(S): Subahdra Rai

UNIVERSITY: National University of Singapore

TITLE: “Returning Home: The Impact of Repatriation on the Health of Refugees along the Thai-Burma Border”

ABSTRACT: With the recent developments in Burma (ceasefires with some of the ethnic groups, the release of political dissidents including Ms. Aung San Su Kyi, and the opening up of the country to development and business), there has been a serious consideration among various stakeholders to begin

the repatriation of refugees living along the Thai-Burma border. The idea of repatriation is especially critical for Thailand as it is not a signatory to the 1951 UN Convention of Refugees and its 1967 Protocol and as such, the word 'refugee' does not exist in its official policy. Thailand does not recognise refugees from Burma as refugees but rather as individuals seeking temporary shelters or displaced persons fleeing fighting. Repatriation appears to be a possibility for Burmese refugees in Thailand as the latter does not wish to remain an indefinite host to refugees which it believes are temporary guests in camps. Although voluntary repatriation is favoured as it reflects citizens' right to return to his/her own country and, repatriation can bring a closure to the temporariness of being a refugee, there are, however, a number of challenges. Loescher and Milner (2009) caution that large-scale repatriation of refugees back to their country of origin without ensuring their safety or that conditions exist for sustainable return could actually hinder peace building process. In fact the authors note that premature repatriation could strain the fragile or non-existent infrastructures in the country of origin and this could further worsen the refugee situation and create conflict. Refugees in the camps suffer from a myriad of health problems that includes sexual and gender-based violence, sexually transmitted infection, human trafficking, depression, post-traumatic stress disorder, self-inflicted abortions, nightmares, malnutrition, drug addiction and loss of identity. Many of the refugees have lived in the camps for over 20 years and 'adapted' to the life in the camps. The lessons from a recent study of recently settled Karen refugees in the US would provide a good background of how repatriated refugees would cope and experience once they returned. Karen refugees who settled in the US experience major obstacles/challenges in locating and accessing employment and health care due to language and transportation barriers. The research noted that basic needs of refugees are not being met in the initial stage of relocation. The goal of this research is to explore the health of refugees along the Thai-Burma border once they are repatriated to Burma. In particular, I would like to learn how repatriated refugees view their health and whether the views impact the way refugees access health services and create meanings of their health (or illness).

AUTHOR(S): Sofia Charvel

UNIVERSITY: Technological Autonomous Institute of Mexico

TITLE: "Legal strategies and the right to health in emerging markets: the case of Mexico."

ABSTRACT: We will analyze the right to health and the benefits and risks of litigating it in the context of the Mexican Health System. Mexico is a federation with an estimated population of 112.3 million. Employment determines access to health. On one side, all employers are legally required to provide health and social benefits to employees and their families -42% of the population- through a public Social Security Institution, where guaranteed benefits include all medically necessary services. While people in the informal economy have limited coverage through a voluntary subsidized insurance. This system currently covers 33% of the Mexican population. An estimated 25% of the population remains uninsured. Mexico recognizes the right to health in its constitution since 1983 and recently has ratified international legal treaty regarding health rights. Citizens are now recurring more frequently to court actions to obtain coverage that is not provided by the public health-care system. These actions may constitute a positive force to improve equity and the realization of the right to health. However, groups with lower resources have less access to the legal system which could give more room to social inequalities and industry influence resulting in unplanned increase health-care costs and more inequity in the distribution of health resources.

AUTHOR(S): Mellissa Withers

UNIVERSITY: University of Southern California, Institute for Global Health

TITLE: Increasing male involvement in family planning: male perspectives from Mexico and Kenya

ABSTRACT: Male disapproval is frequently cited as a major barrier to women's family planning (FP) use. While evidence suggests that men want to engage more in FP, the factors that inhibit their involvement are not well-understood. Male perspectives from Mexico and Kenya are examined in these two studies. These two qualitative studies focus on men's changing views of gender roles, masculinity, and relationship dynamics and how these relate to FP. **METHODS:** Semi-structured, in-depth interviews were conducted with 23 Mexican men in Southern California. In Kenya, twelve focus groups were conducted with married men ages 20-66. **RESULTS:** In both studies, norms and expectations regarding gender and masculinity were related to disapproval of FP. Fears related to male identity and gender roles were significant barriers to male FP involvement. Female partners' increased economic power in both settings challenged traditional male gender roles, threatening their identities. Men were expected to be dominant, authoritarian, virile, and capable providers. FP was often viewed as a "woman's matter" and men involved in FP were perceived to be controlled, overpowered or "herded" by their wives. They also worried about being seen as not able to be good providers or function sexually. Many Kenyan men were reluctant to attend FP clinics with their wives due to fears of forced vasectomies, or disclosure of HIV test results or extra-marital sexual activity to their wives. **CONCLUSIONS:** Men and women's reproductive needs should not be dealt with in isolation. More community-based programs that use male outreach workers or leaders to promote FP are needed. Increased awareness of the positive gender-related benefits that FP holds, such as the ability to be provide financially to fewer children, could encourage more male FP acceptance. Suggested approaches to increase male FP involvement include increased education and male outreach by doctors, community health workers and village leaders.

ABSTRACTS FOR POSTER PRESENTATIONS

AUTHOR(S): Cora Anonuevo

UNIVERSITY: University of the Philippines Manila, College of Nursing

TITLE: Modeling Partnership Between University and Local Government: Philippine Experience in Community Health

ABSTRACT: This presentation highlights the engagement of the University of the Philippines Manila with the local government unit (LGU), the Municipality of San Juan, Batangas, over a 5-year period (2008-2013) to bring about health development in rural communities. It focuses on the partnership process and shared decision-making, mutual goal setting, and problem solving. A main attribute of partnership is collaboration and this is operationalized by having the different disciplines (of the University) work together using institutional resources and expertise alongside with the local government's resources and logistics. With this partnership, the health sciences students and faculty are given excellent opportunities to experience interprofessional education (IPE) and learning towards community health development. The presentation describes in particular how the IPE approach provides comprehensive care to patients and families and directs community health campaigns. In another dimension, the paper explains how integration with the people increased the students' level of social awareness and openness to work with poor and disadvantaged communities. It also discusses the perceptions of the stakeholders on leadership and governance related to the partnership and sustainability issues and challenges of the health program.

AUTHOR(S): Ke-Vin Chang

UNIVERSITY: National Taiwan University

TITLE: Early Versus Delayed Range of Motion Exercise on Shoulder Function, Postoperative Stiffness and Tendon Healing After Arthroscopy

ABSTRACT: Background: The meta-analysis aimed to compare the effectiveness of early range of motion (ROM) exercise with a delayed rehabilitation protocol for patients following arthroscopic rotator cuff repairs. Methods: Randomized controlled trials (RCTs) comparing both rehabilitation approaches were identified by PubMed and Scopus. Between-group differences in functional changes were transformed to effect sizes for comparison, whereas effectiveness against stiffness and risk of tendon failure were represented by standardized mean difference of ROM degrees and odds ratio (OR) of recurrent tears, respectively. Results: A total of 5 RCTs were included and involved 358 patients. No significant difference existed across both protocols in terms of functional improvement. The early ROM group demonstrated a significantly better improvement in shoulder forward flexion than the delayed rehabilitation group, with a standardized mean difference of 7.53 degrees (95% CI, 3.26 to 11.81) at 6 months and 3.55 degrees (95% CI, 0.34 to 6.76) at 12 months. The pooled OR of recurrent tear in the early ROM group was 1.40 (95% CI, 0.78 to 2.51) compared with patients treated by a delayed protocol and increased to 1.92 (95% CI, 1.03 to 3.58) after excluding one study which did not enroll patients with large sized rotator cuff tears. Conclusions: Early ROM exercise accelerated the recovery of post-operative stiffness for patients following arthroscopic rotator cuff repairs but was likely to cause higher rates of improper healing especially in shoulders with large-sized tendon tears.

AUTHOR(S): Ya-Mei Chen, Tung-Liang Chiang, Duan-Rung Chen, Hsiao-Wei Yu1, Yu-Kang Tu

UNIVERSITY: National Taiwan University

TITLE: It is never too early to increase leisure time activities: An application of parallel process modeling using a national sample from Taiwan

ABSTRACT: Introduction: Studies have pointed out the importance of leisure time activities on older adults' ability to maintain physical function. This study assessed the trajectories of late-life functional disability in Taiwan from 1996 to 2007, and explored how leisure time activities trends interplay with the disability trajectories. Methods: The study analyzed the relationships between older adults' leisure time activities and functional disability using a longitudinal and nationally representative survey database, Health and Living Status of the Middle Aged and Elderly in Taiwan. Four waves of survey data, from 1996 to 2007, and 3,186 older adults were included for analysis. Functional disability trajectories were modeled using Nagi's functional limitations, activities of daily living, and instrumental activities of daily living. Leisure time activity trajectories were modeled using activities such as visiting friends and talking a walk. Associations among the growth trajectory factors were simultaneously assessed using a parallel process and multiple-indicator latent growth curve modeling. Results: Older adults' functional disability and leisure time activity trajectories fitted well with curved trajectory models. The baseline level of ($\beta = -0.19, p < 0.001$) and changes over time in ($\beta = -0.64, p < 0.001$) leisure time activity negatively predicted the changes over time in functional disabilities. The baseline level of leisure time activity also negatively predicted baseline level of functional disabilities ($\beta = -0.41, p < 0.001$) (CFI =.94; RMSEA=.062; SRMR=.052.) Conclusion: Among older adults, greater baseline level and greater increase in leisure time activity contribute to better maintenance of physical function as well as slower speed of functional decline across time. Although it is never too late to start engaging in leisure time activities, our study findings emphasized that the earlier and the more increase of leisure time activities over time, the better. Keywords: Functional disability trajectory; Older adults; Physical activities; Leisure time activity trajectory; Parallel process latent growth curves modeling

AUTHOR(S): Yun-Yu Chen, Yenn-Jiang Lin, Pei-Chun Chen, Taz-Fan Chao, Shih-Ann Chen, Kuo-Liong Chien

UNIVERSITY: National Taiwan University

TITLE: Diabetes Mellitus and Different Levels of HbA1c on the Risk of Stroke: a Large Taiwan Cohort Study

ABSTRACT: Introduction: This study aimed to explore the relationships between the level of glycated hemoglobin (HbA1c) in diabetes mellitus (DM) patients and statin therapy on future risk of stroke.

Methods: Based on a retrospective cohort, a total of 5434 participants (380 [7%] with Diabetes mellitus [DM]) was selected from Taiwan's Triple High Survey, 2002, DM and HbA1c were confirmed by the survey. The underlying diseases, medication uses, and outcomes of stroke were ascertained and followed by Taiwan's National Health Insurance Research Database and National Death Registry. The propensity-score 1:2 matching was proposed to investigate the relationship between statin therapy and stroke risk.

Results: After a median follow-up of 9.7 years, DM participants had a higher incidence of new stroke compared with non-DM participants (12 versus 2.6 cases per 1000 person-years, $P < 0.001$). The cut-off value for HbA1c on stroke risk was 5.5%. After adjustment for multivariables, DM participants were at a higher risk of all-type stroke (adjusted hazard ratio [HR] : 1.56, 95% confidence interval [CI] : 1.01-2.40). A positive association of stroke risk was demonstrated with an 1% increment of HbA1c (HR: 1.21, 95% CI : 1.09-1.34). Statin therapy was nonsignificantly related to a reduced risk of stroke. **Conclusions:** In diabetic patients, inadequate glycemic control with higher HbA1c level was associated with higher risk of stroke during a long-term follow-up in Taiwan.

AUTHOR(S): Nai-Wen Cheng, Huei-Ming Ma, Kuo-Liong Chien

UNIVERSITY: National Taiwan University

TITLE: Knowledge, Attitude and Willingness toward Public Access Defibrillation among AED Managers in Taiwan.

ABSTRACT: Introduction: The automated external defibrillators(AEDs) had been proved to be effective to improve the survival of victims of out of hospital cardiac arrest. Nations worldwide took action to provoke the implement of this device. In Taiwan, laws have been made to provoke the implement of this device in public places in 2013. Moreover, which is the first all over the world, the same act also regulates the role of AED managers, who are responsible for the handling of these AED and play an important role in the connection between EMS system and public places. The purpose of this study is to analyse the basic characteristics of these managers, clarify the knowledge, attitude, willing toward public access defibrillation among them in Taiwan, thus to provide data to further reinforce the training program and policy promotion and implementation. **Methods:** This cross-sectional study is launched by emailing those AED managers who registered in the "Taiwan Public AED Registry" website with structured questionnaire. This questionnaire using Likert Scale was developed consisting of four distinct parts: (1) demographics and training status in workplace, (2) the knowledge, (3) the attitude, (4)the willing of public access defibrillation. **Results:** The number of public AEDs reached 4510 in July, 2014, which is 19.29 per 100,000 people. This number is increasing by 406 per month. Among different cities and counties, this number varies from 10.42 to 47.96 in the main Taiwan island and hits 89.13 in the Lienchiang, a small islet county. We demonstrate the implement of different kinds of sites. There are 1902 public AEDs in schools, courts, councils, and military camps, accounting for 42% of all public AEDs. The second includes the stations of Railroad station, Metropolitan Rapid Transit(MRT), Taiwan High Speed Rail (THSR). So far there are 3815 AED managers in Taiwan. They must take a training program containing 3 hours of CPR with AED and 40 minutes of machine handling with registry. Also there is a refreshment every 2 years. During the 3 conference held in 2013 to deliver the ideas and settings, we confronted with the most questions of the obligation of giving help, the legal problem of the

consequences after giving help, and the duty of handling the machines.

Thus a questionnaire using Likert Scale has been conducted in the following part to analyze the knowledge, attitude and willing of these public AED managers. We hope to deliver the final results shortly in the future. **Discussion:** Although we had made the law to set up and regulate the public AEDs, the prevalence of 19.29 per 100,000 people, is still low comparing to 25.6 in UK, 198.9 in the US and 234.8 in Japan. We need the result of the questionnaire to improve the effect of training program, enforce the motivation and willingness of the public AED managers, thus to enhance the use of AEDs and the bridging with EMS system to improve the outcome of the survival of victims of cardiac arrest.

AUTHOR(S): Chia-Pin Chio

UNIVERSITY: National Taiwan University, Institute of Occupational Medicine and Industrial Medicine

TITLE: Long-range Transport Aerosols and Health Impact in Taiwan: a Review

ABSTRACT: Taiwan is located at the center of the western Asia Pacific Rim by geographic point of view. Yet the climate change of Taiwan is strongly correlated with the monsoon from Eastern Asia areas, such as Mainland China, Mongolia, and Siberia, especially for spring season every year. Based on the meso-scale meteorology, the long-range transport (LRT) aerosols (or called Asian dust storm, ADS) have been evidenced to exacerbate the air quality and impact the human health in Taiwan. The possible pollutants include particulate matter (PM), viruses, and fungi. On the other hand, many adverse outcomes and mortality are also found that there are associations with these ADS events. Recently, several approaches are developed to study these impacts of air quality and human health. Except for monitoring methods, various mechanistic and statistical model approaches are also reviewed here. Both qualitative and quantitative analyses can obtain a better solution for evaluating the impacts from the LRT aerosols. During ADS periods, about 3-12% and 25-150% impact of PM₁₀ (particles with aerodynamic size less than 10 µm) mass concentrations for annually and maximum monthly, respectively, are determined by analyzing the air quality monitoring station. Precisely, the concentrations of coarse PM (particles with aerodynamic size greater than 2.5 µm and less than 10 µm) and their crustal elements are significantly elevated. In epidemiological approach, result shows that the cardiovascular death for residents of age greater than 65 years old may rise 4.5% (95% confidence interval: 1.1-8.1%) with analyzing multi-years datasets during the ADS periods.

AUTHOR(S): John Paul Caesar R. delos Trinos

UNIVERSITY: University of the Philippines-Manila, College of Public Health

TITLE: Stated Preference for Cigarettes among UP Manila Students

ABSTRACT: The study assessed the valuation for cigarettes among University of the

Philippines- Manila students aged 18-24. Iterative bidding (direct) and discrete choice experiment (indirect) stated preference methods were employed to determine the smokers' Willingness-to-Pay (WTP) and non-smokers' Willingness-to-Accept (WTA) Of the 212 respondents, 21 (9.90%) were smokers. The smokers' direct and indirect WTP were ₱6.00 and ₱12.43, respectively. There was a significant difference ($p=0.01$) between the results of the two methods suggesting the need to employ more reliable methods such as DCE in obtaining the valuation of consumers for certain products. 40.84% of the non-smokers could be induced to smoke with ₱0.00 as their WTA. The type of inducement (58.62%, 17 of 29) and the unlikelihood of becoming addicted by smoking a cigarette stick (44.83%, 13 of 29) were the two most common reasons for the willingness to smoke among the non-smokers. On the other hand, awareness of the health hazards of smoking (58.41%, 66 of 113) is the most common reason why 59.16% of the non-smokers can't be induced to smoke. No association was found between the smokers' stated preference and their smoking status and allowance. The average December 2013 retail price of the most expensive

and popular cigarette brand, which is ₱4.65 per stick, is 2.67 times lower than the median WTP of smokers which is ₱12.43. Thus further price increase of cigarettes, as well as other tobacco control measures, is recommended.

AUTHOR(S): Ah Choy Er

UNIVERSITY: Universiti Kebangsaan Malaysia, Faculty of Social Sciences and Humanities

TITLE: An Interdisciplinary Research on Dengue: Methods and Policy Implications

ABSTRACT: This paper aims to promote methods applied in an interdisciplinary public health research pertaining to dengue. The paper is culminated from a successful collaboration and networking amongst the researchers from various scientific disciplines in dengue. The outcomes of this research are the development of a 4-week leading indicator model to predict dengue outbreak, the identification of hot spots and becoming hot spots via GIS, the development of a “Cost-of-Illness” methodology to determine the public health costs, the refinement of COMBI, which is found to be effective in managing the dengue disease. The above four matters have immense policy contributions and related stakeholders can implement them.

AUTHOR(S): Kensha Andrea B. Gardingan

UNIVERSITY: Saint Louis University, School of Natural Sciences

TITLE: Solid Waste Management Practices, Awareness, and Perceptions of a Community in Benguet, Philippines

ABSTRACT: Improperly managed solid waste poses a risk to human health and the environment (United States Environmental Protection Agency, 2002). The Philippines’ legal mandate in managing solid wastes called the Republic Act 9003 or Ecological Solid Waste Management Act of 2000 has the potential to effectively address solid waste management in our country (Asian Development Bank, 2004). The goal of this study was to determine the practices, level of awareness, and perceptions of the residents in a community in Benguet, Philippines on solid waste management. The study utilized a quantitative descriptive type of research with the use of a questionnaire involving 314 respondents. Results showed that most of the residents practice good solid waste management activities including selling of used plastic materials or used papers. The study also showed that they are moderately aware on solid waste laws, health impacts, and environmental impacts. There was a significant difference on their level of solid waste management awareness as to their gender and educational attainment. The study also revealed that they agree on factors that lead to environmental health threat of improper solid waste management while they strongly agree on the solutions to proper solid waste management. There was no significant difference on their level of solid waste management perceptions in terms of gender and educational attainment. The study concluded that the residents are satisfactorily aware and have favourable perceptions on solid waste management. The study recommended an intensified information dissemination campaign regarding solid waste management to the community.

AUTHOR(S): Jongho Heo, Juhwan Oh, S. V. Subramanian, Yoon Kim, Ichiro Kawachi

UNIVERSITY: Seoul National University College of Medicine Author Department: JW LEE Center for Global Medicine

TITLE: Addictive Internet Use among Korean Adolescents: A National Survey

ABSTRACT: Background: A psychological disorder called ‘Internet addiction’ has newly emerged along with a dramatic increase of worldwide Internet use. However, few studies have used population-level samples nor taken into account contextual factors on Internet addiction. Methods and Findings:

We identified 57,857 middle and high school students (13–18 year olds) from a Korean nationally representative survey, which was surveyed in 2009. To identify associated factors with addictive Internet use, two-level multilevel regression models were fitted with individual-level responses (1st level) nested within schools (2nd level) to estimate associations of individual and school characteristics simultaneously. Gender differences of addictive Internet use were estimated with the regression model stratified by gender. Significant associations were found between addictive Internet use and school grade, parental education, alcohol use, tobacco use, and substance use. Female students in girls' schools were more likely to use Internet addictively than those in coeducational schools. Our results also revealed significant gender differences of addictive Internet use in its associated individual- and school-level factors. Conclusions: Our results suggest that multilevel risk factors along with gender differences should be considered to protect adolescents from addictive Internet use.

AUTHOR(S): Rozita Hod

UNIVERSITY: National University of Malaysia, Department of Community Health

TITLE: Community Participatory Approach towards Sustainable Dengue Control & Management.

ABSTRACT: Introduction: Dengue has become a major public health problem in many parts of the world, particularly those in the tropical regions. In Malaysia, the rising rates of dengue cases has been alarming. Despite the existence of legislations and control activities, why does the number of dengue cases keeps on increasing every year? This was a cross sectional study which aims to: i) describe dengue incidence in Seremban, an urban district in Malaysia and its relationship with environmental and climate variables ii) determine and advocate the community participatory approach towards sustainable prevention & control of dengue. Methodology: The methods include an epidemiological study on dengue and its relations with environment and climate variables. A survey on KOP (knowledge, opinion and practices) and a case study on dengue control activities using COMBI (Communication for Behavioral Impact) approach was conducted in a local community in Seremban. Results: Descriptive analysis was performed on the epidemiological study on the dengue cases and their risk factors. Statistical analysis on the levels of knowledge, opinion and practice for the pre and post intervention was performed. Discussion: COMBI as a community participatory involvement is shown to have a notable impact in combating dengue. A customized COMBI can serve as a catalyst for behavioral change. Conclusion: The results of this study could provide deeper insights on the public health management of dengue in Malaysia, to ensure the sustainability of the dengue control and prevention programs.

AUTHOR(S): Shiau-Fu Hsieh, Chih-Lin Kuo, Yi-Pin Chiang, Kuo-Liong Chien

UNIVERSITY: National Taiwan University

TITLE: Association between Number of Daughters and Failure of Home Discharge of Stroke Patients after Post-acute Inpatient Rehabilitation

ABSTRACT: Background: Discharge disposition has been important for stroke patients after post-acute inpatient rehabilitation. The rate of failure of home discharge in Taiwan was still unknown. In addition, whether the number of daughters affected patients' home discharge needs investigation. **Methods:** We conducted a retrospective cohort study in a tertiary hospital between July 2011 and Sep 2013. Stroke patients consecutively admitted for post-acute rehabilitation were included. Factors regarding patient demographics, family information, as well as disease and function information were collected. We defined the outcome, failure of home discharge or home discharge, from the discharge chart. **Results:** One hundred and eighteen of 297 stroke patients (mean age 63 years, 37% women) failed to discharge to home after post-acute inpatient rehabilitation. Patients with more daughters tended to be older, female, married, to have ischemic stroke, to receive fewer years of formal education, to have no job, to have homes without stairs, and to have more sons and children. A trend existed between having more daughters and a lower risk of failure of home discharge: having three or more daughters reduced 77 percent of the risk (odds ratio [OR] 0.23, 95% confidence interval [CI] 0.07-0.72), compared with those without daughters (test for trend, $p=0.002$). Other protective factors included a higher age (OR 0.97, 95% CI 0.95-0.99) and a better function at discharge (OR 0.97, 95% CI 0.95-0.98).

Conclusion: The rate of failure of home discharge after post-acute inpatient rehabilitation was high in Taiwan and having more daughters lowered the risk.

AUTHOR(S): Hui-Chun Huang, Kuo-Liong Chien

UNIVERSITY: National Taiwan University

TITLE: Comparing the outcomes of triple or dual antithrombotic agent therapy for patients with acute coronary syndrome: A systematic review and meta-analysis

ABSTRACT: Background: Despite advanced therapy and evidence-based medical care including early revascularization and dual antiplatelet therapy, the long term survival remains high in ACS patients. Recurrent ischemia events are still high despite dual-antiplatelet therapy. However, adding another anticoagulation agent in dual antiplatelet therapy patients with ACS may increase the hemorrhagic events. The project was aimed to use the systemic review and meta-analysis to identify the relative effectiveness and safety of triple antithrombotic therapy or dual antiplatelet therapy in such ACS patients. **Method and Results:** Nine published randomized, placebo-controlled studies of oral anticoagulants in acute coronary syndromes were included. The primary outcome of and the secondary outcome of cardiovascular mortality and major bleeding risk were assessed. When compared with dual antiplatelet therapy, the adding of an oral anticoagulant did not reduced the incidence of all-cause mortality [hazard ratio (HR) and 95% confidence interval [0.89; 0.77–1.03], but significantly reduced the risk of cardiovascular death [0.81, 0.7-0.93] and increased significantly risk of major bleeding [2.69, 2.13-3.39] The heterogeneity between studies was slow. **Conclusion:** In patients with ACS, the addition of a new oral anticoagulant to antiplatelet therapy leads to a non-significant reduction of all-cause mortality, a significant reduction in cardiovascular mortality but a substantial increase in bleeding risk.

AUTHOR(S): Tao-Min Huang, Kuo-Liong Chien

UNIVERSITY: National Taiwan University

TITLE: Hyperuricemia and incident acute kidney injury after invasive cardiac procedures

ABSTRACT: INTRODUCTION AND AIMS: Invasive cardiac procedures such as coronary angiography and percutaneous interventions, and cardiac surgeries have substantially improve patients' outcomes in modern era. However, these procedures are also associated with several adverse outcomes; one of the most notable ones is acute kidney injury (AKI). Efforts are made to prevent this devastating outcome. One approach was to identify patients at high risk for AKI. Hyperuricemia is associated with post-procedural AKI in some case controlled studies, but the role of pre-procedural hyperuricemia in incident AKI was still inconclusive. We plan to conduct a systematic review and meta-analysis to answer this question. **METHODS:** We searched PubMed, EMBASE, and Web of Science to identify relevant citations. Manual search from conference proceedings and references from eligible articles were performed. We used I-square to summarize the heterogeneity among studies. Meta-analysis was done with random effect models, for the heterogeneity from included studies (cardiac catheterization and cardiac surgeries). A p value less than 0.05 is judged significant. **RESULTS:** A total of 3391 patients in 8 studies were included in this systematic review, and 971 (23.2%) of them acquired AKI after procedures. In unadjusted models, the heterogeneity across studies was low: the I-square was 0.0%. Hyperuricemia, as defined in individual studies, carried an odds ratio of 2.70 (95% confidence interval [CI] was 1.23 to 5.90) in unadjusted models. After adjustment with important parameters, hyperuricemia was significantly associated with post procedural AKI (OR = 3.38; 95% CI = 1.25 to 9.16). The heterogeneity across included studies was low (I-square = 0.0%). **CONCLUSIONS:** Hyperuricemia is an important risk factor for AKI after invasive cardiac procedures. Efficacy of treating hyperuricemia to prevent AKI is promising, yet further clinical trial is warranted to prove its efficacy.

AUTHOR(S): Odette Justo

UNIVERSITY: Our Lady of Fatima University

TITLE: Effect of Nerve and Tendon Gliding Exercises among Filipino Tricycle Drivers with Carpal Tunnel Syndrome

ABSTRACT: Carpal Tunnel Syndrome (CTS) continues to manifest itself as a significant economic and debilitating entity, it will be more important to prescribe cost-effective and evidence-based treatment. The aim of the study is to evaluate the effect of median nerve and tendon gliding exercises on the wrist and hand pain and disability among tricycle drivers with mild-to-moderate CTS. A quantitative, multiple-time series experimental research design was used. The subjects were chosen purposively and randomly assigned to experimental (EG) or control groups (CG). While both groups received their usual care, the EG additionally performed median nerve and tendon gliding exercises. Basic information sheet and the Boston Carpal Tunnel Questionnaire (BCTQ) were used to gather person-related factors and wrist and hand pain & disability scores respectively. Multiple Linear Regression (MLR) was used to determine the strongest predictor of BCTQ while t-test was used to test the hypothesis. MLR analysis revealed that frequency ($r = .615$) was the strongest predictor of BCTQ scores. t-test revealed that median nerve and tendon gliding exercises had no statistically significant effect on BCTQ scores ($p = > .05$). This paper was not able to generate empirical evidence that nerve and tendon gliding exercises is a considerable alternative for the management of carpal tunnel syndrome for tricycle.

AUTHOR(S): Chwan-Chuen King, Ta-Chien Chan, Yu-Tseng Chu, Jasper Chia-Kun Chang, Chuan-Liang Kao, Chang-Chun Lee, Tiger Li, Yun-Cheng Chang, Yao-Tsun Li, Wen-Wen Wang, Ting-Chia Weng, Jing-Shiang Hwang, Muh-Yung Yen

UNIVERSITY: National Taiwan University, Institute of Epidemiology and Preventive Medicine, College of Public Health

TITLE: Surveillance, Epidemiological Investigation and Policies of Novel Influenza – Implications to Asian Health

ABSTRACT: Influenza viruses involve a wide range of host species, dynamic antigenic changes and fast spreading. Particularly, the novel influenza viruses deriving from animal species with low herd immunity in human populations may lead to cross-country spread and pandemic. What have we learned from the lessons of past influenza pandemics? Have we gained more experiences from outbreaks of human cases of highly pathogenic avian influenza H5N1 or the 2009 pandemic influenza H1N1? What are epidemiological pattern changes from recent human cases of H7N9 in China? Which subtypes of avian influenza viruses may have increased pandemic potentials in future years? Could we use surveillance, statistical prediction models to minimize public health threat of influenza through cross-country collaboration team effort? After the outbreak of severe acute respiratory syndrome (SARS) in Taiwan in 2003, we developed a hospital emergency room-based syndromic surveillance system with timely electronic data of ICD-9 codes to better monitor unusual events. In facing the challenges of 2009 pandemic influenza, Taipei City Department of Health, Education and Social and Welfare developed a school-based syndromic surveillance system to monitor influenza virus activity among those high risk age groups. Integrating epidemiological analysis with dynamic viral sequence changes, we found the 2009 pdm H1N1 virus variants with HA-E374 mutation quickly emerged in districts of Taipei with high population density at the time close to epidemic peaks and became dominant virus variants (e.g. increasing epidemic potential) to replace original wild-type pdmH1N1 viruses. Furthermore, evaluation of vaccination revealed that mis-matched vaccine strain did increase excess influenza-associated pneumonia deaths in elderly. However, post-SARS public health effort decreased influenza mortality in elderly. Recently, we included meteorological variables to establish better influenza-prediction models for public health pandemic preparedness. We believe our valuable experiences from surveillance, epidemiological investigation and evidence-based public health policies will be helpful to promote Asian Health.

AUTHOR(S): Nipapun Kungskulniti

UNIVERSITY: Mahidol University, Faculty of Public Health

TITLE: Global Health Must Be Responsive To Local Health

ABSTRACT: Background/Aims: A shift to population-centered interventions working to change structural priorities has become the hope of the new public health approach. Yet, those who oppose population-based public health measures understand all politics are local and that if they adequately invest in local support they will likely succeed in attaining their goals regardless of top down investments from above. Methods: We look at the prospects of attaining success in tobacco control if global approaches are not adequately reflected in local action. MPOWER elements of the Framework Convention on Tobacco Control (FCTC) are examined. Results and examples: Examples provided show that MPOWER strategies can be effective if they address the socio-cultural context where they are used. A common approach of the tobacco industry is to displace effective measures with poor, seemingly effective general measures that pre-empt local and truly effective and enforceable ones. Macro-economic and macro-political influence is more effectively used by business interests but can be effectively overcome by community priorities. One important approach is to use local commitment and partnerships to trump disease-promoting practices, while population-centered, top-down approaches continue. Outcomes and

Conclusion: In-depth research shows how global mechanisms like MPOWER can be effective. Yet, big plans still depend on many local details. Generating local understanding, commitment and effort is an essential element necessary to sustain innovative population-based projects and programs to address emerging and persistent goals for development. Even evidence-based approaches depend on effective implementation, not subverted by individual private interests.

AUTHOR(S): Chien-Hung Kuo, Wei-Hsin Ting, Chia-Hua Chan, Kuo-Liong Chien

UNIVERSITY: Tungs' Taichung Metro Harbor Hospital, Taiwan

TITLE: Early Childhood Family Environment and Adolescent Eating Behaviors

ABSTRACT: Introduction: Unhealthy dietary habits, such as frequent intake of fast foods, snack foods, and sugar-sweetened beverages, are associated with overweight. Family environment may play an important role on adolescent eating behaviors. The objective of this study is to examine the relationships between family environment in early childhood and adolescent eating behaviors. Methods: A cross-sectional study composed of 823 adolescents recruited from 2 junior high school and 2 senior high school. Childhood family environment and healthy and unhealthy eating behaviors were collected from questionnaires. Results: Individuals in higher quartile of Unsupportive Family Environment Scale had lower parental education and more depressive symptoms. Adolescents in the higher quartile of Unsupportive Family Environment Scale drank more sugar-sweetened beverages, but less frequently ate at home and ate breakfast compared with those in the lower quartile of Unsupportive Family Environment Scale. After adjusting for gender, school group and parental education, Unsupportive Family Environment Scale was still positively associated with sugar-sweetened beverages as well as inversely associated with eating at home and eating breakfast. Conclusion: Unsupportive family environment was positively associated with sugar-sweetened beverages intake and inversely associated with eating at home and eating breakfast.

AUTHOR(S): Tai-Shuan Lai

UNIVERSITY: National Taiwan University Hospital, Department of Internal Medicine

TITLE: Hepatitis B Infection and the Risk of Cerebrovascular Disease – A Population-based Cohort Study in Taiwan

ABSTRACT: Cerebrovascular diseases cause high morbidity and mortality and place great health burden. This study aims to explore the relationship between chronic hepatitis B virus (HBV) infection and risk of cerebrovascular disease in a HBV endemic area. Participants and Methods: Data were obtained from the National Health Insurance Research Database, a mandatory program established in 1996 covering almost entire people of Taiwan. Individuals older than 18 years old with first-time diagnosed HBV infection between 2000 and 2008 were included. A non-HBV comparison group was matched with the HBV group at a 4:1 ratio based on age, sex, and month of HBV diagnosis. All the diseases were identified by international classification of disease 9th edition clinical modification. Cox proportional hazard regression model were used to estimate hazard ratios (HR) of incidence of cerebrovascular diseases. Results: A total of 27989 subjects of HBV infection were identified. Subjects with HBV infection were prone to have diabetes, hypertension and hyperlipidemia compared to subjects without HBV. A total of 517 cerebrovascular diseases in HBV group were identified and the incidence rate was 2.92 per 103 person-years. The multivariate HRs of total stroke, ischemic stroke and hemorrhage stroke with 95% confidence interval (CI) was 0.83 (0.74-0.95), 0.78 (0.67-0.90) and 1.07 (0.84-1.35). In a subgroup analysis, HBV infection had high impact of developing ischemic stroke among patients without liver cirrhosis with a HR (95% CI) 0.61 (0.53-0.72). Conclusion: Chronic HBV infection may have a protective effect on developing ischemic stroke, especially in patients without liver cirrhosis.

AUTHOR(S): John McKeveen Lerma

UNIVERSITY: Saint Louis University

TITLE: Occupational Stress Levels of Teaching and Non - Teaching Personnel of the School of Natural Sciences in Saint Louis University

ABSTRACT: This research explores the extent of stress and the different coping mechanisms utilized by the employees of the School of Natural Sciences. The study design was based on the measurement of the Occupational Stress Index. Questionnaires were floated to 64 teaching & non – teaching employees of the School of Natural Sciences. Results show that the Employees have low occupational stress. Female employees would have a relatively high occupational stress level than male employees and employees who teach would also have a higher occupational stress level than employees who do not. Major causes of stress in their jobs have been identified to be Role Demands, Task Demands and Organizational Structure. Effective coping strategies have been practiced by the employees to lessen the experience of stress therefore increasing job satisfaction.

AUTHOR(S): Che-Hsuan Lin

UNIVERSITY: National Taiwan University, Institute of Epidemiology and Preventive Medicine, College of Public Health

TITLE: Effects of Home-based Cardiac Rehabilitation on Peak Oxygen Consumption of Patients with Coronary Heart Disease: Meta-analysis

ABSTRACT: Background: Evidences supported that declined exercise capacity of patients with coronary heart disease (CHD) can improve through traditional center-based cardiac rehabilitation (CR). At the same time, home-based training is developed to facilitate the utility of CR and benefit more victims. Objectives: To depict the effectiveness of home-based CR on peak oxygen consumption compared to center-based training or a control group. Search methods: Searching PubMed and Cochrane Library databases in March, 2014 with keywords, which is restricted in review article or randomized controlled trials written in English. Data collection and analysis: Data from 20 articles were classified to “Home-based vs Center-based” and “Home-based vs Control”. The oxygen consumption measurements were pooled for standardized mean difference (SMD) meta-analysis with 95% confidence interval (CI). Further, all exercise capacity outcomes were identified and analyzed in the same way. Main results: With exclusively oxygen consumption outcome into analysis, there was no significant difference between home-based and center-based CR (SMD=-0.13, 95%CI: -0.46 to 0.20). While pooling all exercise measurements, results still showed no significant difference between groups (SMD=-0.06, 95% CI: -0.29 to 0.17), and significantly favored the home-based group in comparison with control group. (SMD=1.02, 95%CI: 0.24 to 1.79). Authors’ conclusions: Home- and center-based CR are equally effective in improving peak oxygen consumption of CHD patients in the condition of adequate monitoring and intensity adjustment. With this finding, it can be anticipated that integration of monitoring, exercise records, intensity adjustment, and emergency call will maximize the effects of home-based training.

AUTHOR(S): Sophia Lin

UNIVERSITY: University of New South Wales, School of Public Health and Community Medicine

TITLE: Trends in saturated fat intake in Pacific Island countries and territories, 1961-2009

ABSTRACT: INTRODUCTION: Rapid socio-economic changes in Pacific Island Countries and Territories (PICT) have resulted in significant alterations to population diets. Previous research has suggested increasing imported foods has increased consumption of animal fat, and subsequently saturated fat (SFA) which is strongly associated with increased risk of atheroma and coronary heart disease through

increasing serum cholesterol. The aim of study was to examine long-term secular trends in SFA consumption in PICTs between 1961 and 2009. **METHOD:** Total fat intake of each food item in the food supply data from the Food and Agriculture Organization database was assessed for fatty acid composition using the United States Department of Agriculture's National Nutrient Database. **RESULTS:** SFA consumption vary widely, ranging from 7-20% of total energy intake (2009). Trends in PICT are stable, except Kiribati where SFA consumption has fallen from 25% to 16% of total energy. Socio-economic development is not associated with SFA intake. **DISCUSSION:** The stability of SFA consumption may be due to the replacement of high-SFA coconut, which is traditionally consumed in high amounts, with other high-SFA foods including animal meat. In Kiribati, where food supplies are almost exclusively from imports, SFA decrease may be due to refined carbohydrate replacing coconut instead of animal meat. Research is underway to assess delayed effects of population dietary fat changes on non-communicable disease prevalence and related mortality in PICTs.

AUTHOR(S): Yu-Chen Lin

UNIVERSITY: National Taiwan University, Institute of Epidemiology and Preventive Medicine

TITLE: Frailty and Quality of Life in Elderly - A Meta-Analysis Abstract

ABSTRACT: Previous cross sectional studies have exploring the domains and degrees of quality of life (QOL) that are affected by the frailty of elders will help clinicians understand the impact of frailty.

Methods: For our study, frailty criteria and quality of life questionnaire types were evaluated to ascertain their comparable effect on QOL score between robust, pre-frailty and frailty, respectively. A meta-analysis was conducted utilizing the random effect of the weighted mean change difference between the frailty, pre-frailty and comparator groups, depending on the I² statistic heterogeneity measurement and meta analysis. **Results:** In 7 studies grouped elders with frailty and robust, by using the random effects model, mean change in total QOL score which including physical function and mental function (pooled mean change difference -0.96, (95% CI=-1.38 -0.55), were significant differed between robust and frailty. When grouping by QOL types, the result between frailty and robust was the same as above. In 5 studies grouped elders with pre-frailty and robust, mean change in total QOL score, were significant differed between robust and pre-frailty. Interestingly, when grouping by QOL types, the result of physical function between pre-frailty and robust was insignificantly, but significant in mental function between two groups. **Conclusions:** Our data suggested that both physical function and mental function had a significant difference between frailty and robust. Therefore, we should put more emphasis on mental health in elders and suggest that may prevent frailty.

AUTHOR(S): Christine Linhart

UNIVERSITY: University of New South Wales

TITLE: Trends in blood pressure in Fiji

ABSTRACT: **Objective:** To investigate trends over time in mean blood pressure (BP) in Fiji during 1980-2011 (2007 population: 837,271). **Methods:** Population surveys of BP in adults 25-64 years in Fiji were selected if they were nationally representative, or could be adjusted to the nearest previous census (by age, sex, ethnicity, urban/rural). Surveys included were the 1980 cardiovascular disease (CVD) risk factor (RF) survey; 1993 & 2004 National Nutrition surveys (NNS); and the 2002 & 2011 World Health Organisation STEPS surveys. Linear regression analysis was performed of mean systolic BP (SBP) and diastolic BP (DBP) over time (mmHg). Analyses also adjusted BPs to the 1996 census (age, ethnicity and urban/rural for 1980, 1993, 2004; age for 2002, 2011). Impact of outliers was assessed by removal and reanalysis. **Results:** Annual increases in SBP in males (0.380; p=0.036) and females (0.309; p=0.036) were statistically significant at p-value less than 0.05. Annual increases in DBP in males (0.182; p=0.248)

and females (0.215; p-value 0.095) were not statistically significant. Adjustment of BPs to the 1996 census reduced annual increases. Exclusion of DBP outliers (NNS 2002) augmented annual DBP increases and statistical significance in males (0.222; p=0.073) and females (0.244; p-value 0.016). Conclusion: Local survey data demonstrate an increase in BP in the Fiji population during 1980-2011 as a RF contributing to increases in CVD. Adjustment of data to the 1996 census suggests that some of the increases are due to population change. Removal of outliers augmented increases in DBP.

AUTHOR(S): Don Eliseo Lucero-Prisno III

UNIVERSITY: University of the Philippines Open University

TITLE: The Changing Determinants of AIDS in China

ABSTRACT: The AIDS epidemic in China remains low, yet steadily on the rise and severe in some regions and population groups. Challenges remain in implementing effective AIDS control measures. This paper discusses the challenges and issues. Methods: This paper is based on a comprehensive review of recent policy papers, reports, research studies and other relevant papers. Document analysis was employed. Results: The HIV/AIDS prevalence remains low, with an infection rate of 0.058% by the end of 2011. Sexual transmission is main route (from 33.1% in 2006 to 76.3% in 2011). MSM has the highest prevalence, which is on a rapid rise. Prevalence has expanded to the elders and young age population. Of the affected populations, only 28% are aware of their status while 14% have received anti-retroviral treatment. Local CDCs, hospitals and community-based organizations have contributed in building a health system in delivering comprehensive and standard services to HIV infected populations. However, nearly 50% of the country has not yet been covered. There is still lack of policy support for general hospitals in having HIV services. Other aspects like ARV resistance, discrimination and stigma hinder the efficiency in prevention and treatment. Conclusions: The HIV/AIDS epidemic in China is evolving and changing and controlling it has become more complex. Government and NGOs are making strong efforts in HIV/AIDS prevention. There is a need to scale up all aspects of the intervention including sex education among the young, innovative approaches such as using social networking and massive funding.

AUTHOR(S): Bhekumusa Lukhele

UNIVERSITY: Kyoto University

TITLE: “Everything just flows on Facebook ...” - Predictors of multiple sexual partners among Facebook users in Swaziland: A mixed method study

ABSTRACT: Background: HIV prevention programs need to understand and address all enablers of multiple sexual partnerships (MSP). In developed countries, Social Networking Sites (SNSs) have been documented to facilitate sexual activities. However, it is unknown how SNSs influence sexual activity in developing settings like Swaziland. This study aims to explore Facebook use and multiple sexual partners. Methods: We conducted a mixed methods research. In the qualitative phase, we conducted

4 focus group discussions to explore whether Facebook is used to expand sexual networks among participants recruited by a maximum variation sampling. In the quantitative phase, we examined the generalizability of the qualitative findings to the target population through an online self-administered questionnaire survey among 2000 randomly selected Swazi Facebook. Results: The qualitative findings revealed that Facebook contact that led to subsequent sexual activities was common to the extent that participants referred to Facebook as “a hunting ground for sexual partners”. In the quantitative phase, 882 Facebook users participated in our study, of which, 37% reported ever to have had sex with someone they met on Facebook. Those that “found it easier to initiate a romantic relationship on Facebook” were more likely to have MSPs (AOR=1.8, CI 1.2-2.7). Conclusion: This study revealed two perspectives of Facebook use in Swaziland. First; it revealed Facebook’s inevitable role in facilitating HIV risky sexual

behavior. Second; it revealed its positive potential in engaging internet users in Swaziland in a dialogue on HIV risk behavior change.

AUTHOR(S): Giselle Manalo

UNIVERSITY: University of Sydney, School of Public Health, Sydney Medical School

TITLE: The University of Sydney Classroom In the Field (CIF) program in the Philippines

ABSTRACT: In November 2013, the Masters of International Public Health (MIPH) program launched its Classroom in the Field (CIF) Program, where five students were selected based on a written application, panel interview and academic performance, to do an eight week field placement in the Philippines. Successful applicants were matched with three in country partner organizations; namely the Health Human Resources Development Bureau of the Department of Health, University of the Philippines, Manila and Zuellig Family Foundation. This field placement program provided students with a deeper understanding of public health issues and health system complexities in a resource poor setting. Students were also supported by volunteer CIF field mentors who are affiliated alumni. Prior to departure, CIF students underwent orientation, a leadership training workshop and preparatory sessions which were complemented by further orientation sessions in country. Learning topics were based on activities organized by partners in the field and linked to students' chosen unit of study elective. This first cohort of student had what they described to be a 'life changing' experience and evaluated the program quite positively. Local supervisors praised the flexibility, cultural sensitivity, adaptability, respectful traits and hard-working qualities of the MIPH students. This innovative educational program will not only enable postgraduate international public health students to gain a deeper understanding of public health issues in resource poor settings, but also equip them with skills to help them become culturally proficient health professionals in an interdependent world.

AUTHOR(S): Azaher A Molla and Jangho Yoon

UNIVERSITY: Oregon State University, Department of Public Health

TITLE: Determinants of Household Healthcare Expenditure in Bangladesh

ABSTRACT: Determinants of household healthcare expenditure are essential for creating effective health care policy. In Bangladesh, individuals and families are rarely covered by health insurance, and therefore illness results in large out-of-pocket spending. This study investigated determinants of household healthcare expenditures in Bangladesh, one of the least developed countries on the globe. We analyzed data from 2010 Bangladesh household income and expenditure survey (HIES), a national representative survey on 10,715 households that had incurred health care expenditures during the previous year. Quantile regression was employed to model the effects of individual characteristics, types of illness, and place of residence on health care spending. Our preliminary analysis reveals that age and female sex were negatively associated with household health expenditures. Rural residents spend more on health care than urban residents. Factors such as marital status, education, chronic illness and illnesses within 30 days were found to determine the magnitude of household healthcare expenditure. We discuss policy implications from our results which sometimes appear to be paradoxical.

AUTHOR(S): Yuniar Sarah Ningtiyas & Saleha Sungkar

UNIVERSITY: University of Indonesia

TITLE: The Level of Knowledge on Treatment of Scabies and its Association with Demographic Characteristics of Students in Pesantren

ABSTRACT: Scabies is a skin disease caused by infestation and sensitization of parasite named *Sarcoptes scabiei*. The prevalence of scabies is high in crowded areas like pesantren in Jakarta (78.7%). In an effort to prevent scabies, health promotion and screening the level of knowledge about treatment of scabies are needed. The purpose of study was to determine whether there is an association between level of knowledge about treatment of scabies with the demographic characteristic of students. This cross-sectional study was held in Pesantren X, East Jakarta on January 22, 2011, using questionnaires which given out to all the students. Data were processed using SPSS version 11.5 and analyzed using chi-square test and Kolmogorov-Smirnov test. The results showed that students with good level of knowledge were 8 students (5.7%), fair 33 students (23.6%), and poor 99 students (70.7%). There was no significant difference (Kolmogorov-Smirnov $p > 0.05$) between levels of knowledge about treatment of scabies with students' age, sex, grades, the most impressive information, and there was also no significant difference (chi-square = 0.895) with the number of information. It was concluded that the level of knowledge was not associated with students' age, sex, grades, the most impressive information, and the number of information.

AUTHOR(S): Juhwan Oh, Young-kyung Do

UNIVERSITY: Seoul National University College of Medicine, JW LEE Center for Global Medicine

TITLE: Interim impact analysis of Lao MNCH program via equity lens

ABSTRACT: While all global societies have worked together to achieve MDG 4 & 5, Korea government supported Maternal and Child Health Program (MCH) of Lao PDR with WHO since 2009. When overseas aid program have helped developing countries people utilize more modern health services for safe delivery, overall increasing of service utilization has been achieved. However, equal increasing across different socioeconomic subgroup has been doubted and usually aggravation of inequality in service utilization happens often. We authors evaluated the result of MCH program of Xienkwang Province Lao PDR, which was supported by Korea and WHO, via equity lens as a part of the interim evaluation in 2012. Our main findings are follows. In terms of institutional delivery and antenatal care visit at least once, while Lao PDR achieved both services increasing, unequal utilization over socioeconomic subgroups also decreased. For example, asset based social inequality of institutional delivery of 2012 (OR 0.72: land owner vs no-land owner) were significantly improved than 2009 (OR 2.46) ($p = 0.029$) while education based equality of service utilization have been kept well. While we are making overall improvement in MCH program, still Lao PDR could make improvement even in inequality dimension as well.

AUTHOR(S): Edriel Jay N. Ortaleza

UNIVERSITY: Saint Louis University

TITLE: Prevalence of Mothers at Risk for Post-Partum Depression

ABSTRACT: The prevalence of mothers' at risk for postpartum depression varies depending on the locale but data about such is absent in our setting. Thus, the study aimed to determine the prevalence of mothers' at risk for PPD in Baguio City. Further, it determined the significant difference in the prevalence of mother's at risk for PPD when they are grouped according to marital status and parity. The study used the descriptive survey design. Data were gathered from 226 postpartum mothers using the EDPS tool

from November 6, 2012 to December 9, 2012. Frequency and percentage was utilized to determine prevalence of risk for PPD while chi-square was used to establish significant difference in the prevalence of mothers when grouped according to presence of partner and parity. The findings show that risk for PPD among mothers is not prevalent in Baguio City. Further, there is no significant difference on the prevalence of mothers at risk for PPD when they are grouped according to presence of partner and parity. Based from the findings, the researchers recommend that care givers in the health centers to determine the risk of mothers for PPD using a tool such as the EPDS. Those at risk should be reassessed and be referred accordingly based from an algorithm developed guided by the result of the study. Importance of care and management for postpartum depression should be stressed and integrated in textbooks and in the academe.

AUTHOR(S): Nenita Panaligan, Vernadeth Dumagat, Cristy Jaleco, Belle Villanueva, Joy Christian

UNIVERSITY: Cavite State University

TITLE: Family Profile of Engaged Adolescents Towards Early Pregnancy in Selected Towns in Cavite

ABSTRACT: This study was conducted to assess the socio-demographic profile and family profile of pregnant and non-pregnant participants during adolescent age. It also identified the influence of socio-demographic profile and family profile to early pregnancy of female participants and male with pregnant and non-pregnant partners. It also ascertained if there is any significant difference between the socio-demographic profile and family profile of pregnant and non-pregnant participants during their adolescent age. The questionnaire, containing two parts, was adapted from different articles and related studies which were modified by the researchers. The data gathered using the questionnaires were tallied, interpreted, and statistically analyzed. Frequency and percentage were used to present the socio-demographic profile and family profile such as structural characteristics. To present the influenced of socio-demographic profile and family profile of pregnant and non-pregnant participants, Chi-Square was used. Mann Whitney U Test was used to determine the significant difference between demographic profile of pregnant and non-pregnant participants during their adolescent age. Differences were tested using Tukey's B Test. This study reveals that the number of siblings, educational status, parents' civil status, father's employment status, mother's educational attainment, father's educational attainment, monthly family income and religion had significant influence to early pregnancy as to female participants. Likewise, the number of siblings, educational status, parents' civil status, mother's employment status, father's employment status, mother's educational attainment, father's educational attainment, monthly family income and religion had significant influence to early pregnancy as to male participants. In addition, structural characteristics of female and male participants influenced early pregnancy. The study shows that significant difference was noted between socio-demographic profile of the participants in terms of educational status, father's employment status, mother's educational attainment, father's educational attainment and religion. In the same manner, significant difference was noted between family profile of pregnant and non-pregnant participants in terms of their role pattern, communication pattern, social relationship and belief system. Based on the findings and implications, it is recommended that: the adolescents should think of having a stable life first by being aware of the family profile of their partners; the parents must have good parenting skills in terms of communication pattern for those who are at risk of engaging in early pregnancy; the members of the community and other members of the health team should further advocate the control of teenage pregnancy by giving health education to parents regarding their parenting style; in school, there should be an organized seminar concerning gender sensitivity of which the students may become aware of this issue; and religious organizations should focus their teachings on values education among adolescents.

AUTHOR(S): Ye Yin Park, Jongho Heo, S. V. Subramanian, Ichiro Kawachi, Juhwan Oh

UNIVERSITY: Seoul National University College of Medicine Author Department: JW LEE Center for Global Medicine

TITLE: Socioeconomic Inequalities in Adolescent Depression in South Korea: A Multilevel Analysis

ABSTRACT: Background: South Korea has witnessed a sustained rise in the prevalence of adolescent depression. In the present study, we sought to investigate family and school environmental influences on adolescent depression. Methods-and-Findings: Middle and high school students (N = 75,066) were randomly selected respondents to a web-based survey and answered questions on their academic and socioeconomic backgrounds, parental support, parental education level, physical activities, lifestyle habits and their experience of depression in the past one year. Two-level multilevel analysis was used to investigate the relationship between depression and individual (level 1) and school (level 2) factors. Girls reported having experienced depression in greater numbers than boys (43.96% vs. 32.03%). A significant association was found between adolescent depression experience and gender, grade, self-rated academic achievement, family affluence scale, parental support, parental education level, lifestyle habits, physical activity and sleep dissatisfaction. The students living with rich parents were more likely to be depressive, and maternal higher education was significantly associated with higher probability of boys' depression experience. Low academic achievement was highly associated with the experience of depression. In school level contexts, girls were found to be less likely to be depressive in girls-only schools. Conclusions: The adolescent depression experience is not only an individual phenomenon but is highly associated with other factors such as parents, peers, academic achievement, and even gender mix in the school. Thus, prevention measures on youth depression need to focus on emphasizing less pressure from parents on academic performance, and establishing healthy inter-gender relationships within co-education schools.

AUTHOR(S): Satwinder Rehal

UNIVERSITY: The University of the Philippines-Diliman, Department of Sociology

TITLE: Decision-making and contraceptive use in the Philippines and Kenya: comparative lessons from recent surveys

ABSTRACT: For more than three decades, family planning programs in many developing countries have implemented strategies aimed at managing their population in relation to national developmental goals, the emphasis being on the provision of family planning information and services based on a policy of non-coercion and respect for religious and moral convictions. A major outcome of the 1994 ICPD was the agreement that men should assume more responsibility for family planning and family support. However, fertility and family planning research and programs have ignored men's roles in the past focusing more on women's behaviour and where services tend to be presented within the lens of maternal and child health. Since the Cairo 1994 Conference and the 1995 UN World Conference on Women, interest in men's involvement in reproductive health has shifted from increasing contraceptive use and achieving demographic goals and towards achieving gender equality and fulfilling various reproductive responsibilities. Based on a comparative content analysis of recent demographic and health surveys from the Philippines and Kenya, two economically emerging developing countries with divergent approaches to family planning, the former being conservative while the latter being more liberal, the paper reveals similar outcomes in unmet need for family planning, concerns over increasing population rates and low male involvement in contraceptive responsibility and collective decision-making. Combined with increasing programmatic attention to spousal communication, this paper outlines strategies that prioritize need for further inquiry into the nature of men's reproductive attitudes towards contraceptive use.

AUTHOR(S): Sandra Ambros Saingan

UNIVERSITY: St. Louis University

TITLE: Hookah is hooking the youths: a review and call for action

ABSTRACT: Water pipe smoking (WP) or hookah is an increasing popular phenomenon that is associated with dangerous health effects, including addiction, especially among the youths. While this poses public health concern, this literature review was conducted to determine the current epidemiological and socio-behavioral findings of WP smoking among the youths to promote strategic public policy. Data resources include PubMed and EBSCOhost wherein articles published during the last five years and with youths, students or adolescents as study samples were considered eligible in this review. After a qualitative overview of evidence, results show that the prevalence of young WP smokers is high in the recent years. They are usually college students, males, 13-26 years old, and from American countries. WP smoking is done from 1-5 times per month, increases during the summer months and holidays and usually in café, hookah bars and friend's residence. The socio-behavioral issues that stand out are the major reasons why WP smoking is hooking the youths such as curiosity on flavorings, misperceptions about harm, easy access, socializing motives, and polysubstance abuse. Associated health effects of WP smoking studied among the young include asthma, carbon monoxide poisoning, depressed and anxiety disorders. No current published studies addressed the evidence of strategies to halt WP smoking. In conclusion, evidences of high exposure of youths in WP smoking are generally alarming and sufficient to support public health actions. Aligning WP smoking regulation in all tobacco smoking laws shall therefore be put into action before its harmful effects affect the majority.

AUTHOR(S): Josefina Santos

UNIVERSITY: University of the Philippines, Broadcast Communication Department, College of Mass Communication

TITLE: Social Determinants in the Campaign Against TB

ABSTRACT: Health is one concern that calls for multi-level, multifaceted and synchronized approaches in order to be addressed completely. This is what the author concluded as she headed a multi-million-peso campaign in 2013 to drastically reduce the incidence of tuberculosis in the Philippines. While there are positive results in the campaign and the number of TB cases in the Philippines is declining there is the reality that this massive anti-TB campaign is brought about by the fact that the Philippines belong to the "high-burden" countries for tuberculosis. Going around the country during the campaign, the presenter encountered several cases which can be considered as representative cases for factors that serve as barriers to reaching the goal of a TB-free Philippines. These cases are: the hospital that addresses only their specialization and completely disregards the other health issues of patients and their care givers; the ignorance of some doctors on information regarding prognosis, diagnosis and treatment of the disease; the low health seeking behaviors of Filipinos, and the low priority on health by government.

AUTHOR(S): Noor Sazarina Mad Isa @ Yahya, Baba Md Deros, Maxrura Sahani, Ahmad Rasdan Ismail

UNIVERSITY: Universiti Kebangsaan Malaysia (The National University of Malaysia), Environmental Health and Industrial Safety Programme

TITLE: Low back pain and its associated risk factors among automotive industry manual handling workers in Selangor, Malaysia

ABSTRACT: Many studies reported low back pain among working population in the developed countries. In Malaysia, limited studies on low back pain were reported. A cross-sectional study was conducted to investigate the prevalence and risk factors of low back pain among 202 automotive industry manual material handling (MMH) workers in Selangor, Malaysia. A Self-administered questionnaire modified from the Standardized Nordic questionnaire and Risk Factor Questionnaire (RFQ) was used to assess the prevalence of low back pain and its associated risk factors. The risk factors were categorized into personal, posture, physical activity, and lifting activity. This study found that the 12 months prevalence of low back pain among automotive manual handling workers was 53.5%. Multivariate logistic regression analysis shows that the personal factor does not significantly contributed to occurrence of low back pain. Posture and lifting activity risk factor that are significant for the 12 months prevalence of low back pain are kneeling (OR=6.161; 95%CI=1.336-28.41), extremely bending (OR=5.207; 95%CI=2.226-12.18), using powered vibrating tools (OR=5.075; 95%CI=1.813-14.21), slightly bending (OR=3.889; 95%CI=1.980-7.637), and lifting weights 6-10 kg more than 10 times per hour (OR=3.061; 95%CI=1.067-8.786). These findings showed that the lifting activity and work posture were significant risk factors for low back pain among automotive industry manual handling workers. Health promotion and risk communication activities are important measures for prevention of low back pain among manual handling workers.

AUTHOR(S): Chung-Liang Shih

UNIVERSITY: National Taiwan University

TITLE: "Status quo and problems of quality of care and patient safety in Taiwan

ABSTRACT: Hospital accreditation system was implemented in Taiwan since 1978, that is the fifth country in the world and the first in Asia. In 1995, government launched the national health insurance with the coverage of 99% citizens as well as more than 90% accredited hospitals contracted. In 1999, the independent non-profit institution, Taiwan Joint Commission of Hospital Accreditation, was established to play as a third party accreditation, and also provide assistance for hospitals to enhance health care quality such as an indicator project, quality improvement tools etc. However, by the end of 2002, a medication mix-up accident occurred in an Obstetrics and Gynecology Hospital, resulting in seven neonates with resuscitation and one dead. This event is triggering government emphasis on patient safety as well as promotes measures and actions to create safe environment and patient safety culture. In this workshop, we will share the experience of patient safety actions including nation-wide reporting system, national safety goals, and safety culture survey.

AUTHOR(S): Nutta Taneepanichskul

UNIVERSITY: Chulalongkorn University

TITLE: BTEX occupational exposure among workers at one of parking structure in urban area, Bangkok, Thailand

ABSTRACT: Urbanization and rapid economic development in Thailand lead to an increasing of vehicle population nowadays. The trend of parking slots is changed to be multi-story car park. Due to the poor and limited air ventilation in car park, Benzene, Toluene, Ethylbenzene and Xylene (BTEX) affect directly to workers in that area. This study focused on health risk assessment related to benzene, toluene, ethylbenzene and m,p,o-xylene (BTEX) exposure through inhalation among car park workers in summer 2014. Personal active sampling through activated charcoal tube, followed by National Institute for Occupational Safety and Health (NIOSH) standard method, was used to collect air sample at the breathing zone of worker for 8 hours continuously. The mean concentration of benzene, toluene, ethylbenzene and m,p,o-xylene were 11.28 (± 5.03), 56.13 (± 73.96), 7.17 (± 9.20), and 10.59 (± 6.32) $\mu\text{g}/\text{m}^3$, respectively. Carcinogenic and non-carcinogenic health risks were assessed by US Environmental Protection Agency (U.S. EPA) approaches. Cancer risk for benzene exposure was accountable for 4.37×10^{-6} which considered as an unacceptable level (acceptable level, cancer risk $< 10^{-6}$). For non-carcinogenic risks, hazard quotients (HQ) were 0.360, 0.010, 0.006, and 0.105 for benzene, toluene, ethylbenzene, and xylenes, respectively which indicated as an acceptable level (HQ < 1). These finding suggested that risk communication should be provided for car park workers to increase their health awareness.

AUTHOR(S): Angelica Tiongco

UNIVERSITY: Our Lady of Fatima University

TITLE: Correlates of Neck Pain and Disability: The Effect of Endurance Exercise Among Filipino Sewing Machine Operators

ABSTRACT: Limited studies were conducted on the determinants of sewing machine operators' neck pain & disability or the effect of endurance exercise among this population. The purpose of this study was to determine the effect of endurance exercise on neck pain and disability among sewing machine operators. The study is a quantitative, quasi-experimental research design. The subjects were selected using non-probability purposive sampling. Demographic data was gathered using questionnaire. Task and environment factors were measured using the Ovako Work posture Analysing System (OWAS) and Visual Analog Scale (VAS) respectively. The Neck Disability Index (NDI) was used to measure neck pain and disability. Multiple linear regression (MLR) was used to identify the greatest predictor of NDI. MLR analysis revealed that the strongest and statistically significant predictors of NDI were years of experience ($r = -.614$; $p = .02$) and job satisfaction ($r = .505$; $p = .008$). Endurance exercise significantly reduced NDI scores starting week 2 ($p = 0.026$). Physical therapists can incorporate endurance exercise in reducing the perceived neck pain among sewing machine operators.

AUTHOR(S): Mary Joan Therese Valera

UNIVERSITY: University of the Philippines Manila, Department of Nursing

TITLE: Fall Risk Among Urban Community Older Persons

ABSTRACT: Older persons need fall risk assessments in order to develop programs and interventions for them to be active and productive in aging. This should be done in Philippine communities. This study determined the risk for falls of urban community-dwellers 65 to 89 years old. Participants were ambulatory elderly registered in a government centre in one city. Data collection was done by interviewing elders and assessing fall risk factors. Data analyses were done using descriptive statistics.

SPSS version 16 was used to correlate variables. Fall risk predictive factor is age. Protective factor is being married and/or living with family, which is 65.3% of this group, while, 71.5% has moderate level confidence in the performance and completion of a task. However, there are insufficient studies that show that confidence level is predictive of the risk for fall. Depression is statistically significant related factor for falls and was measured by Geriatric Depression Scale (GDS). Results showed that 87.7% has mild depression. Functional mobility capacity of the participants, namely balance and gait, and flexibility were measured by Tinetti Balance and Gait Scores (TBGS) and Chair Sit-and-Reach Test (CSRT). TBGS yielded 46.9%, and CSRT yielded 67.3%, which is low risk for falls. Correlation between TBGS and GDS, and TBGS and ABC were arrived at by using Spearman Rho. It yielded a significant relationship ($r = 0.358$, $p = 0.012$) between balance and gait with a depressive state, and no significant relationship ($r = -0.136$, $p = 0.352$) between balance and gait with confidence level, respectively.

AUTHOR(S): Joseph Wu, Jenny Hsieh, Hsin-Yi Lee, Chang-Chuan Chan, Hsien-Ho Lin, Kwong-Leung Joseph Yu

UNIVERSITY: Malawi Country Office, Luke International, Norway

TITLE: Global Health Problems? Global Health Internship!

ABSTRACT: With globalization and the increasing need to solve health issues universally, one of the main challenges in public health presently is to have adequate human resource for assisting developing countries to achieve its health development goals and for developed countries to sustain its achievements. The novel profession of public health specialist requires multi-skills, strong domain knowledge and open minded vision to tackle global health issues. However the traditional education system and program cannot fulfill the need to cultivate enough capacity before the students embark careers in global health. The School of Public Health of National Taiwan University (NTU), Luke International (LIN) from Norway and Pingtung Christian Hospital (PTCH) in Taiwan recognized the situation since 2009 and started the campaign and preparation for the Global Health Internship Program (GHIP). The program was officially launched in 2012, based in one of LIN's development project country, Malawi, in Africa. The GHIP includes orientation before deployment, on-site orientation and mission oriented program allowing students to shadow global health practitioners implementing health development projects. The program recruited 9 undergraduate public health school students during 2012 to 2014. While the model of the program is still evolving through on-going feedback from students, the programme demonstrated promising results in preparing students for a global health career with two GHIP alumni employed by an international health research project and an international development agency upon graduation. We will continue to improve the GHIP to formulate a replicable model for other training institutes to develop similar programs worldwide.

AUTHOR(S): Wei-Cheng Yao

UNIVERSITY: Min-Sheng General Hospital Taiwan, Department of Medical Education

TITLE: The Influencing Factors of Patients' Intention to Use the Telemonitoring System

ABSTRACT: There are gaps between acute care in the hospital and community care. The patient may be discharged from hospital without regular following up at clinics or poor compliance about medical advices. The telemonitoring system enables the patients to upload physiological data to the server of the hospital, and the medical personnel could provide continuum of care beyond the boundary of time and distance. However, there are still a long way to achieve the wide application and successful implementation for the telemonitoring system. The specific aim of this study is to find the influencing factors of utilizing telemonitoring system. Methods: Based on the technology acceptance model (TAM)

proposed by Davis et al. and theory of reasoned action (TRA), we developed a structured model and questionnaire to measure the measureable and latent variables and constructs. The data analysis is performed by the statistic software based on the structural equation modeling (SEM). Results: The reliability and validity of questionnaire and model are supported by the factor analysis. The results reveal the endogenous constructs such as perceived easy of use (PEOU) and perceived usefulness (POU), and the exogenous variables such as computer literacy and subjective norms influence the patients' intention to use (ITU) the telemonitoring system. Conclusion: The telemonitoring system requires the basic ability of computer literacy which may be influenced by age, gender and education level. To increase the confidence of system security, reduce the entering barrier and provide health promotion are three major issues to implement the telemonitoring system successfully.

AUTHOR(S): Chih-Hsuan Yen, Chung-Lieh Hung, Yau-Huei Lai, Ping-Ying Lee, Jen-Yuan Kuo, Hung-I Yeh, Charles Jia-Yin Hou, Kuo-Liong Chien

UNIVERSITY: National Taiwan University

TITLE: Segmental Arterial Stiffness in Relation to B type Natriuretic Peptide with Preserved Systolic Heart Function

ABSTRACT: Background: Central arterial stiffness had been shown to play a key role in cardiovascular diseases. However, evidence regarding such arterial stiffness from various arterial segments in relation to B type natriuretic peptide (BNP) remained elusive. **Materials and methods:** The project consecutively studied 1255 participants (mean \pm SD age: 62.6 \pm 12.3 years, 47.8% men) with preserved left ventricular ejection fraction (LVEF) \geq 50% and at least two risk factors. Arterial pulse wave velocity (PWV) was measured by an automatic device (VP-2000; Omron Healthcare, Japan) for heart-femoral (hf-PWV), brachial-ankle (ba-PWV), and heart-carotid (hc-PWV) segments. BNP concentrations were measured. **Results:** Participants in the highest quartile of hf-PWV were older, more female percentage, worse renal function, higher blood pressure, left ventricle mass index (LVMI) and serum BNP level, compared with those in the lowest quartile (all $P < 0.05$). Hf-PWV was strongest associated with elevated serum BNP ($r = 0.28$, $p < 0.01$). Both hf-PWV and ba-PWV were related to elevated serum BNP level after adjusted (beta coefficient = 8.3, 6.4 respectively, both $P < 0.01$). Adding both hf-PWV and ba-PWV to LVMI, the area under receiver operating curve were respectively increased from 0.63 to 0.71 and from 0.63 to 0.69 significantly ($p < 0.01$) to predicting high BNP (> 100 pg/ml) but only hf-PWV had significant better 0.7% ability to predict a high BNP concentration ($P = 0.029$). **Conclusion:** Our study showed that significant segmental PWV was associated with BNP concentration, implying that arterial stiffness was associated with the myocardial pressure overload.

AUTHOR(S): Marina Zahari, Nurul Nabihah Mohd Roslam, Wan Zawiah Wan Zin@Wan Ibrahim, Abdul Aziz Jemain

UNIVERSITY: Universiti Kebangsaan Malaysia, School of Mathematical Sciences, Faculty of Science & Technology

TITLE: Air Pollution and Hospital Admissions for Cardiovascular and Respiratory Diseases in Klang Valley, Malaysia

ABSTRACT: Evidence on air pollution and hospital admissions in Malaysia is limited. A study was undertaken to investigate the relationship between elements of air pollutants (CO, O₃, PM₁₀, SO₂, NO₂) and hospital admissions for cardiovascular and respiratory diseases in Klang Valley, Malaysia for the period 2004-2009. The risk of hospitalisation for both diseases was estimated using Poisson generalized additive model, controlling for atmospheric conditions and time trends. We considered the lagged effects of pollutants by disease type, gender and age (young 0-14, adult 15-64, and elderly ≥ 65 years). We found

associations between hospital admissions and levels of air pollutants. Risk of hospitalisation for respiratory disease (1.3% - 4.6%) was higher than for cardiovascular disease (2.0% -3.1%). NO₂ and O₃ were the largest contributors to the admissions of the two diseases. An inter quartile range increase in NO₂ (0.006 ppm) was associated with an increase of 3.1% (95% confidence interval 1.6%, 4.7%) and 4.6% (2.3%, 6.9%) in cardiovascular and respiratory admissions, respectively. For O₃ (IQR 0.065 ppm), we found strong association for respiratory illness with an increased risk of 4.2% (2.6%, 5.8%). Elderly age group was most affected compared to the young and adult age groups. Risk of hospitalisation from all causes for men and women were almost similar. This study suggests the levels of air pollution increase the risk of cardiovascular and respiratory admissions in Klang Valley, Malaysia.

AUTHOR(S): Wan Zawiah Wan Zin@Wan Ibrahim, Aisyah Mohd Zahrai, Marina Zahari, Abdul Aziz Jemain

UNIVERSITY: Universiti Kebangsaan Malaysia, Center for Mathematical Sciences, Faculty of Science & Technology

TITLE: Identification of pollutants and environmental factors affecting hospital admission for respiratory and cardiovascular diseases

ABSTRACT: According to the Annual Report of the Ministry of Health Malaysia

(MOH) in 2011, respiratory and cardiovascular diseases have been listed among the top 10 reasons for hospital admission in Malaysia. As these diseases are closely related to air quality, this study aimed to investigate the relationship between the concentration of the five elements of air pollution; particulate matter (particulate matter) smaller than 10 µm (PM₁₀), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), ozone (O₃) and meteorological factors such as temperature, relative humidity, wind speed, with the number of hospital admissions due to respiratory and cardiovascular disease. Data from several air quality control stations and hospitals in Klang Valley for the years 2004 to 2009 are chosen for analysis. The linear and non-linear effects of these determinants using additive quantile regression model for three higher values quantiles (50%, 75% and 90%) of the hospital admission are modelled. Single and multiple pollutant model are considered to see the effect of the pollutant on its own and when combined. The results showed that all the meteorological factors listed are significant in influencing hospital admission. CO and NO₂ are found significant for 50% and 75% quantiles of hospital admission due to respiratory disease. For the cardiovascular disease, NO₂ is found to be the only significant pollutant affecting hospital admission. Models for these relationships are successfully generated to provide estimation on the hospital admission based on the covariates considered at higher quantile values of admission.

AUTHOR(S): Yu-Cheih Yu, Kuo-Liong Chien, Wei-Chu Chie

UNIVERSITY: National Taiwan University, Institute of Epidemiology and Preventive Medicine

TITLE: Health Inequity Existing in Cancer Screening Program

ABSTRACT: Introduction: Integrated Screening is a health care program to integrate many screenings of cancers and chronic diseases simultaneously in Taiwan. However, we are interested in whether there is a health inequity in this program. Hence, in this study, our purpose is to find the association of compliance or attendance for screenings of breast cancer, cervical cancer, colorectal cancer and oral cancer, which are the four main cancer screenings in integrated screening program in Taiwan, with social-demographic characteristics respectively. Method: A meta-analysis of compliance or attendance which is related to social-demographic characteristics in four cancers was conducted. The meta-analysis was performed using random effect model, and the pooled outcome was presented by odds ratio and 95% CI. Finally, we conducted funnel plots to find whether there are publication biases in our research or not. Result: We

included 26 studies in our meta-analysis. We have positive social-demographic effects with household income for all cancer screenings, especially breast cancer (1.10, 95%CI [1.06-1.15]) and cervical cancer screening (1.26, 95%CI [1.12-1.43]) ,and education level for all cancer screening especially cervical cancer screening(1.38, 95%CI [1.07-1.77]) reaching significance. Conclusion: Social-demographic characteristics may associate with the compliance or attendance of cancer screenings. Thus, upon our research, health inequity may exist in cancer screening in integrated screening program in Taiwan.

AUTHOR(S): Hon-Ye Wu

UNIVERSITY: Far Eastern Memorial Hospital, Internal Medicine

TITLE: Comparative Effectiveness of Different Renin-angiotensin System Blockers in Diabetic Patients: A Nationwide Cohort Study

ABSTRACT: **BACKGROUND:** Diabetes is a global epidemic and a major cause of long-term dialysis and death. As guidelines indicate that angiotensin converting enzyme inhibitors (ACEIs) and angiotensin receptor blockers (ARBs) have similar cardiorenoprotective effects for diabetic patients, so far there has been no consensus about the priority for these treatments. **METHODS:** We assessed the hypertensive patients in the Longitudinal Cohort of Diabetes Patients from the National Health Insurance Research Database of Taiwan since 1996. Enrolled participants should be 18 years or older, with continuous use of antihypertensives for at least 90 days. Cox's proportional hazard models were used to evaluate ACEIs versus ARBs for the outcomes of long-term dialysis, acute kidney injury, hyperkalemia, and all-cause death. **RESULTS:** 34043 (58.9%) patients received ACEI therapy and 23772 (41.1%) patients received ARB therapy, and were followed-up until the end of 2011. During a mean follow-up time of 8 years, a total of 1548 long-term dialysis, 393 acute kidney injury, 1751 hyperkalemia, and 506 deaths have occurred. Our analyses showed no differences among ACEIs versus ARBs for long-term dialysis (hazard ratio 0.92, 95% confidence interval 0.82 to 1.02), acute kidney injury (1.11, 0.88 to 1.39), and hyperkalemia (1.05, 0.94 to 1.17). ACEIs showed a significantly higher mortality (1.20, 1.01 to 1.44) than ARBs after multivariate adjustment. **CONCLUSIONS:** This study demonstrates no differences in the long-term renal outcomes between ACEI and ARB users, but a higher mortality among ACEI users. Because of the retrospective and observational nature of the study design, result should be interpreted conservatively.