

medical school, public health, or other areas of health outreach. The department offers the MSGM program as a progressive degree option for students in the Health Promotion and Disease Prevention Studies undergraduate program at the University of Southern California. Lessons learned In May 2009, the MSGM program graduated its first cohort of students. Most graduates had taken their MCAT tests and applied to medical school. Some graduates had plans to join the workforce in the health sector or in government agencies focusing on public health. Next steps The MSGM program continues to expand its course offerings and has experienced increased enrollment. Clearly there is a significant demand for professionals with global medicine perspectives, from medical schools, employers, and government agencies, and the MSGM program is positioned to continue training students to meet that demand.

SP-031**The Efficiency and Effectiveness of Computer-Assisted Instruction “Fun with Nutrition” for Prevention of Childhood Obesity**

Khanitta Thepprasit, Chutima Sirikulchatanonta, Piangchan Rojanavipart, Rachada Kasemsup
Mahidol University, Thailand

The purpose of this quasi experimental research was to study the efficiency and effectiveness of a computer-assisted instruction (CAI) entitled “Fun with Nutrition” which was designed to prevent childhood obesity for grade 5th students. The research consisted of two groups and a pre and post test design. The sample was comprised of 247 students (134 in intervention group, 113 in control group), ages 10-12, who were studying at a private school in Bangkok. The intervention group received CAI in 5 chapters: childhood obesity, nutrition guideline, fat and sugar, vegetable and fruit and physical activity. The intervention was done weekly (40-50 minute class) for 5 weeks. Data regarding the characteristics of the students, nutritional status, nutrition knowledge, eating behavior, physical activity and students’ satisfaction with CAI were collected. Independent t-test, paired t-test and Chi-square test were applied for statistical analysis.

The results revealed that students in the intervention group increased their knowledge after using CAI more than control group. But no change in the intervention group was found concerning eating behavior and physical activity. After the intervention, the nutritional status of students in the intervention group showed no significant change. These findings suggest that the CAI was able to enhance learning achievement in students regarding childhood obesity and nutrition knowledge. However, subsequent stimulation by teachers and parents should be encouraged to improve the eating and exercise behavior of children.

SP-032**Student-Led Tutorials: Diversity and Creativity in Postgraduate Learning of Major Public Health Issues in Developing Countries- The MIPH Way!**

Manalo M Giselle

University of Sydney, Australia

Since the inception of the Masters of International Public Health (MIPH) Program in 2000, the number of international students mostly from developing countries (Pacific Islands, Asia, Africa and Middle East regions) has significantly increased. Currently, nearly half are international students; 70% come from developing countries. Students’ experiences range from highly experienced in the international arena having worked in their home countries/overseas to limited or virtually no working experience. As enrolments dramatically increased in 2003, effective learning tools had to be employed to maximize peer interaction and learning to address the needs of our culturally diverse student populace. Thus, student led tutorials were implemented. In 2000, the MIPH commenced with 13 students. To date, there are 123 students enrolled with about 45% being international students. Each tutorial group of allocated 10-12 students meet for 9 weeks; a student facilitates the discussion based on international public health issues generated from lectures and readings. Creative methods such as debates, problem solving case scenarios, role playing, educational games and mini icebreaker quizzes have been prepared and conducted by the students. This presentation looks at the impact of student-led tutorials in learning major public health issues within a developing country context and describes skills developed outside a traditional didactic method of teaching. It also describes the impact of student-led tutorials on the mentoring process and pastoral support of postgraduate students.

SP-033**Environment and Health Impact of Hot Mud Volcano in the Subdistric Porong, East Java Indonesia**

Jojob Mukono

Airlangga University, Indonesia

Subdistric Porong is located at Sidoarjo regency East Java, Indonesia, 20 km south of Surabaya. The Sidoarjo mud flow is informally abbreviated as Lusi, a contraction of Lumpur Sidoarjo (limpur is the Indonesian word for mud), is an eruption of gas and mud that has been going since May 2006. It is considered to be mud volcano. In the first stage of drilling, the drill first went through a thick clay seam (500-1,300 m deep), then sands, shells, volcanic debris and finally into permeable carbonate rock. At this stage the borehole was surrounded by a steel casing to help stabilise it. A second stage of drilling began and the drill string went deeper, to about 2,834 m (9,298 ft). Unfortunately at that time without a protective casing, after which water, steam and a small amount of gas erupted at a location about 200 m

southwest of the well. During the eruption hydrogen sulphide gas was released and local villagers observed hot mud, thought to be at temperature is around 60°C (140°F). Because of the second stage of drilling without a protective casing, the most likely cause of these hydraulic fractures was unprotective drill string in the second stage of drilling. The impact of these volcano such as physical, biological and health impact. The aim of the research are identification of the impact of hot mud volcano to the community health and environment. Method of the research is the observation study included cross-sectional study. Primary data that are quality of air, hot mud volcano, environmental condition (building status) and health status. Secondary data included health status of the people living in the research area and physical environment condition in the research area. The research analysis by descriptive method. Results of the research are identified symptoms of the H₂S exposure, skin symptoms because of mud contact, respiratory symptoms impact and also the environmental impact included physical and biological impact. The subsidence range 30-100 cm and building disorder is about 22%. Water and Air pollution such as concentration of HC is 55000ppm (standard 0.24 ppm), NO₂ is 0.116 ppm (standard 0.05 ppm), Cl is 2896.63 mg/L (std 600 mg/L), Cd is 0.15 mg/L (std 0.005 mg/L) and Mn is 5.14 mg/L (std 0.5 mg/L). The disease dominated by respiratory infection, neuritis, gastritis, skin infection and diarrhea. Impact of volcano was managed by specific method.

SP-034

Morbidity and Mortality of Multidrug Resistant Tuberculosis in Mongolia

Dambadarjaa Davaalkham¹, Dorj Gantsetseg²

1. Health Sciences University of Mongolia, Mongolia

2. National Center for Communicable Diseases, Mongolia

Introduction: Mongolia is one of the countries with the highest prevalence of tuberculosis in the Western Pacific Region. In the recent years the spread of multidrug resistant tuberculosis (MDR-TB) emerges challenges in TB control in most countries including Mongolia. The aim of this study was to investigate the incidence of MDR-TB since the introduction of drug sensitivity testing in 2003.

Materials and Methods: A descriptive method was used in this study and information regarding the patients were abstracted from official report.

Results: Totally 419 MDR-TB cases (1.6 cases per 10 000 population) have been registered during 2003-2008. More than 60% of MDR-TB cases were reported in capital-Ulaanbaatar city. An average age ($\pm$ SD) was 32.3 $\pm$ 10.9 and people aged 16-44 years were mainly (85.5%) affected with the MDR-TB the majority of whom were men. While only 63 cases (15%) were registered in 2003-2005 the remaining (85%) were reported in the last 3 years, probably due to increase in the incidence of MDR TB as well as better screening.

Only 43% of all MDR TB patients have received treatment whereas 32% died prior to the treatment. High proportion (61.8%) of deaths among MDR TB cases have been reported until 2006 that decreased to 22.3% after opening of the special ward in central TB clinic. **Conclusion:** In conclusion, MDR TB has been increasing in Mongolia and treatment should be started immediately after the drug sensitivity test to prevent from further disease burden.

SP-035

H5N1 Virus and World System Theory: The Case of Indonesia

Oedojo Soedirham

Airlangga University, Indonesia

World-system theory is a macrosociological perspective that seeks to explain the dynamics of the "capitalist world economy" as a "total social system." The system divides the world (economy) into three zones: core, semi-peripheral, and peripheral countries. Chirot (1986) lists the five most important benefits coming to core nations from their domination of periphery nations: access to a large quantity of raw material, cheap labor, enormous profits from direct capital investments, a market for exports, and skilled professional labor through migration of these people from the noncore to the core. The blood sample that contains H5N1 Indonesian strain could be counted as raw materials that have enormous economic value especially for medical industries. The paper discusses that the case is actually part of the theory in practice.

SP-036

Prevalence and Risk Factors of Intestinal Parasite Infestation among Hilltribe Student

Weerayuth Siriratrungsuk, Tawatchai Apidechkul

Mae Fah Luang University, Thailand

A cross-sectional study of prevalent rates, risk factors and re-infection rate of intestinal parasitic infestations among hill-tribe schoolchildren. Target populations were level one to level six primary schoolchildren who attended ten Border Patrol Police Schools in Chiang-Rai province, Thailand. Three hundred and thirty nine subjects were recruited by simple random sampling out of a total population of 2,194 children. All three questionnaires were tested for validity and reliability. Stool specimens were examined qualitatively and qualitatively for intestinal parasites using cellophane-covered thick smear technique. Unconditional multiple logistic regression at $\alpha = 0.050$ method was applied to statistical analyses. **Results:** subjects were 51.92% male, 48.08% female, 31.2% Akha, 30.38% Kmong, 66.08% Buddhist, and 33.92% Christian. Prevalent rate of parasitic infestation was 9.75%, of which 7.97% was from *Ascaris lumbricoides*, 0.88% Hookworms, 0.29% each of