

Similar to the definition of health as being "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity", safety can be seen as "a dynamic state or situation of adequate control of physical, material or moral threats and not merely the absence of injuries and threats". In this sense, "Safety promotion" can be a sustainable movement. To improve safety, the actions can be taken at individual level, group level, organization level, community level, national level and international level. Each has its own role and focus with the possibility of performing at the same time. Actions at community level, which have lead to safe communities, have formed a movement spreading around the world. As more and more communities to join the international safe community network, it is hoped that injury prevention and safety promotion can achieve better results.

Symposium 5- International Cyber University for Health (ICUH)

SY5-01

The International Cyber University for Health: Uniqueness Development and Challenges

Walter Patrick
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(More detail will be presented during the talk)

SY5-02

Data Mining Approach to the Analysis of Risk Factors for Chronic Diseases among Workers

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Objectives: The prevention of chronic diseases among workers is an increasingly important public health issue in Korea because 25% of the entire population is workers and they are rapidly aging as the entire population is becoming older. Accordingly, workplace health promotion (WHP) is becoming an important approach to improving workers' health. With the goal of providing information for WHP, this study identified the modifiable (i.e., lifestyle) risk factors for chronic diseases by using data mining method.

Methods: Risk factors were identified by using logistic regression and a decision tree, which is a data mining method for predicting risk factors. In addition, the predictive powers for the two methods were compared to demonstrate the effectiveness of data mining in analyzing a large data set. In the analysis, 293,144 workers in 200 workplaces from the 2007 health examination data were analyzed for two chronic diseases: hypertension and diabetes.

Results: The results showed that smoking and exercise were important factors influencing these chronic diseases. Specifically, smoking, exercise, and age between 45 and 54 were significant factors for hypertension, while smoking, exercise, and job type (office work or production work) were significant factors for diabetes. In contrast to previous studies, decision tree analysis gave more accurate results than logistic regression in predicting hypertension and diabetes.

Conclusion: We conclude that data mining can be a useful analytic tool for predicting chronic diseases. Further, it provides segment-specific information on risk factors to support WHP for the specific target group.

SY5-03

Web-Based Learning in the University of the Ryukyus- A Case Study of International Maternal and Child Health Course in 2009 Spring Semester- **Tomiko Hokama¹, Young Moon Chae², Soo Jin Yoon²** *1. University of the Ryukyus, Okinawa, Japan* *2. Yonsei University, Seoul, South Korea*

Background: The University of the Ryukyus and International Cyber University for Health (ICUH) within Asia Pacific Academic Consortium for Public Health (APACPH) at Yonsei University made MOU for academic exchange in 2006. The International Maternal and Child Health (IMCH) course has been provided by the faculties of both universities in 2009 spring semester. A case study of the course was carried out to improve the course.

Purpose: To evaluate the effectiveness of web-based distance learning of IMCH course in terms of meeting learning objectives and student satisfaction

To explore the obstacles faced in completing the course

Methods: The data about course participation was collected from function site of web-class. The evaluation on course by 6 Japanese students was carried out when the course ended.

Results: Most students answered that lecture materials were adequate and learning objectives were obtained. However, 2 students who could not attend offline class did not agree that learning effectiveness was better than offline lecture. Main problems for obtaining credit were lack of language competence, active relationship with professors and other students. It was difficult for distant students to attend regular offline classes held at the University of the Ryukyus.

Conclusion: An offline class in each university is useful to provide and confirm sufficient information about ICUH, and IT technical advice. The class also needs supplementary material in Japanese. Systematic student support including these points will be necessary for web-based distant learning especially for distant students.