OBJECTIVES: Uganda has a high population growth rate (3.2%) and a high fertility rate (6.9%). To reduce the low prevalence of contraceptive use we examined factors associated with contraceptive use and the choice of contraceptive methods by Ugandan women of reproductive age. METHODS: We obtained demographic, socioeconomic and contraceptive use data from 4,010 women from 9 Districts in Uganda (UDHS) 2011. We performed descriptive analyses to examine the frequency of use and contraceptive choice. We fit exploratory binary and multinomial logit models to examine demographic and socioeconomic factors associated with contraceptive use and choice of contraceptive. RESULTS: Our analysis included 8647 women data on contraceptive use. 22.87% reported current use of contraceptives. The most commonly used methods were injections (44.25%) and condoms (47.72%). In the model, higher odds of contraceptive use was associated with higher age (OR 1.38 95% CI: 1.29, 1.49), being in a higher wealth quintile (OR 1.27, 95% CI: 1.21, 1.34), higher level of education (OR 1.28, 95% CI: 1.20, 1.37) and employment (OR 1.37, 95% CI: 1.28, 1.47). Among women who used contraceptives, contraceptive use was associated with higher age (OR 0.58, 95% CI: 0.46, 0.73) of using contraceptives. The reference outcome group in the multinomial logit model was “not using any contraception”. Age, employment status, level of education, wealth quintile, region of country, number of children, and unwanted children are important determinants of choice of contraceptive. However the effects differed according to the choice of contraceptive. CONCLUSIONS: Our study shows that the prevalence of contraceptive use is very low in Uganda and identifies some determinants of contraceptive use and method choice. There is need to focus reproductive health research towards identifying contraceptive characteristics that may influence choice in order to design more holistic contraceptive policy.

PHS17 LONGITUDINAL ANALYSIS OF DENGUE FEVER INFECTIONS REPORTED IN THE UK BETWEEN 1990 AND 2003 USING THE HEALTH IMPROVEMENT NETWORK (THIN) PRIMARY CARE DATABASE

Ansel D1, O’Leary C, Nasser A

CDG Nutrition, Medical University, UK

OBJECTIVES: In the UK, dengue fever is a travel associated viral infection which is endemic in over 110 countries and is transmitted through a mosquito vector. Infection may develop into severe dengue which can lead to death. There is currently no licenced drug available to protect against infection, although vaccine development is in progress. In 2009 the Health Protection Agency in England commenced monitoring the prevalence, so there is no longitudinal data on UK rates. This study describes the rates of infection and the characteristics of the population reporting dengue fever recorded in a primary care database. METHODS: The THIN primary care database contains 12 million patients with 3.8 million active patients in 2012. An observational, retrospective study was conducted from 1/2/2002 – 31/12/2012. All patients with diagnosis of dengue fever and dengue-like illness were identified. The variables were: age, gender, ethnicity, social deprivation score and month of diagnosis. RESULTS: The annual rates of dengue fever perm in THIN from 2002 – 2013 were 4.0, 3.7, 7.9, 5.3, 3.3, 6.5, 5.0, 1.9, 7.4, 6.5 respectively The 4 years of HPA data from 2009 to 2012 were very similar to THIN rates (2.9, 7.1, 3.5, 6.9). 58% of patients were males. The percentage by age bands 0 – 19, 20-39, 40 – 59, 60+ were 8%, 48%, 30%, 34% respectively. CONCLUSIONS: Between 2002 – 2013 there was year to year variation in THIN diagnosed dengue fever cases. However we did not note any variation in rates of dengue fever during this period. The 4 years of HPA reported rates are very similar to THIN rates. Infection was reported more frequently in males, and almost half of infections occurred in the 20-39 age group. This may just reflect their greater propensity to travel to affected destinations.

PHS18 ESTIMATING PUBLIC HEALTH AND MEDICAL DIRECT COST OF PNEUMOCOCCAL RELEVANT DISEASES FROM REAL WORLD DATA BASE IN SHANGHAI, CHINA

Xu S1, Yang H1, Wang J1, Zhao Y2, Yu F2, Xu H2, Zhang Y2, Shi Q3, Xuan J4, Zheng W5, Ye L6

1Shanghai University of Medicine and Health Sciences, Shanghai, China. 2China Health and Family Planning University, Beijing, China. 3Shanghai Jiao tong University, Shanghai, China. 4Shanghai University of Medicine and Health Sciences, Shanghai, China. 5Shanghai Jiao tong University, Shanghai, China. 6Vanderbilt University, New York, NY, USA. 7Vanderbilt Epidemiology Center, Vanderbilt University School of Medicine, TN, USA. 8Wuhan University, Shanghai, China.

OBJECTIVES: To identify incidence and direct medical cost of patients diagnosed with all-cause pneumonia and acute otitis media through EMR database and health information database (HID) in Minhang district, Shanghai, METHODS: Cases were defined by ICD-10 code and identified for a two-year period, from Jan 1st of 2010 to Dec 31st of 2012 from EMR database. Relevant medical cost was collected from HID, ancillary cost data – such as costs of medical procedures, medications, and facility utilization was estimated through survey. These data were combined and analyzed. RESULTS: The highest incidence of inpatient all-cause pneumonia was 795 episodes per 100,000 person-year in children under 2 years, it decreases as population ages but rise the trend with patients age 50 and above. The second high incidence appeared in senior people aged 65 and above (249 per 100,000 person-year). Pneumonia case were evaluated in 249 patients who developed all-cause pneumonia hospitalization and Acute Otitis Media. The cost analysis indicated that the medical direct cost per case increases and population ages. The highest median cost (95% range) for hospitalization were evaluated among all-patients of all-cause pneumonia (RMB 10,650 [6,747-47,637]). The median of 432 RMB per hospitalization episode which accounted 9.51% of 2011 Shanghai per person GDP and 22.32% of 2011China per person GDP.

PHS19 ECONOMIC FACTORS ASSOCIATED WITH CHOLERA OUTBREAK IN SOUTHERN GHANA, 2012: A CASE-CONTROL STUDY

Davies-Teve BBE1, Vanooto L1, Yahaya JB2, Kwakye-Maclean C2


OBJECTIVES: Cholera, a key social development indicator remains an acute global public health threat (Dunkle, 2011 Pengeole, 2011). Ghana has seen recurrent epidemics in recent years, posing health system challenge. This study aimed to describe, identify the cause and socio-economic factors associated with 2012 cholera outbreak in Osu-Klottey district for policy recommendations. METHODS: We conducted a case-control unmatched case-control study. Cholera case-patient was person with acute diarrhea with/without vomiting in the district from 1st March to 30th November 2012. We interviewed participants on socio-economic, household logy and diarrheal structured questionnaire and used spatially geospatially. Data was managed and analyzed in Stata 11/SE. RESULTS: Case index, 23 year old male Nima resident reported to Ridge hospital on 9th March 2012 after eating street-vendors “Waakye”. The outbreak caused by Vibrio cholera O1 El-Tor biotype, serotype ogawa had two peaks with total of 494 cases with 3 mortality (Attack rate; 383/100,000 populations, 0.61% fatality). Age ranged 2-83, mean and median 31+14 and 27 years respectively. Majority of cases were from Ayawaso and Osu-Klottey. Prompt case management, infection prevention practices, contact tracing, sensitization campaigns and proper cadaver disposal were instituted. Monthly income, daily-food-expended ranged 10-500 USD and 0.50-25 USD respectively among participants. Logistic regression analysis (95% confidence interval) showed age (OR=7.69, CI: 1.21, 1.34), home food (OR=0.83, CI: 0.39-0.19) and having piped-water (OR=2.15, CI: 0.44-4.44) were associated. Hand washing with soap-water, slum residence, and daily-food-expended below 5.0USD and alcohol ingestion showed significant association only with bivariate analysis. Multivariate and inferential analysis showed that increased consumption of cholera food, increased multi-sectoral approach including oral cholera vaccine for the under-18 years old would make significant impact.

PHS20 ASSESSMENT OF DIABETES RISK FOR DETECTION OF TYPE 2 DIABETES MELLITUS IN YOUNG ADULTS

Pham BS1, Sikich N2

1Bharti Vidyapeeth Medical College, Pune 41, India. 2Regina M. Mean abdominal obesity in high risk students was 101.95± 5.76 as compared to 79.17 ± 11.08 in moderate and low risk students(p <0.083, t-test). Family history of diabetes (AOR=2.96, CI 1.16-7.54), exclusive household toilet facility (AOR=0.289, CI 0.12-0.70), cold/warm food (AOR=3.11, CI 1.34-7.23), home food (AOR=0.83, CI 0.39-0.19) and having piped-water (AOR=2.15, CI 0.44-4.44) were associated. Hand washing with soap-water, slum residence, and daily-food-expended below 5.0USD and alcohol ingestion showed significant association only with bivariate analyses. Multivariate and inferential analysis showed that increased consumption of cholera food, increased multi-sectoral approach including oral cholera vaccine for the under-18 years old would make significant impact.