

EPIDEMIOLOGY AND POLICY

P1-65 ROAD TRAFFIC ACCIDENTS IN ALEXANDRIA, EGYPT: TRENDS OF MORTALITY (2000–2009)

doi:10.1136/jech.2011.142976c.58

M A Wahab.* *High Institute of Public Health, Alexandria, Egypt*

Introduction Road traffic accidents (RTA) with their serious social and economic consequences, though preventable, comprise an important cause of death and disability in developing countries, where the problem is increasing rapidly due to rapid motorisation. Nearly three-quarters of road deaths occur in developing countries. It is estimated that RTA will be the second leading cause of disability-adjusted life years in developing countries in the year 2020. This study aims to describe quantitatively the RTAs related mortality in Alexandria, and to identify their trends through 2000–2009.

Methods Data were collected from records of the information and decision support center in Alexandria. Statistical analyses were performed using SPSS 18.0 for windows software. Trends were evaluated using time series seasonal decomposition and ARIMA analyses. Different risks were determined using Poisson regression.

Results RTA mortality followed a significant rising trend (cubic model) with the highest incidence rate being in 2008 and 2009. Months from July to October showed the highest seasonal factors. Males were more than three times at risk than females. RTA mortality occurred with a higher incidence for ages above 60 years old and youth (university ages). Also higher rates were calculated for poor and remote districts.

Conclusion Policy makers in Alexandria, Egypt need to recognise Road Traffic Accidents (RTA) as a growing public health crisis, design appropriate policy responses and implement urgent interventions for road safety applicable to the particular mix of Egyptian road use.

P1-66 TRENDS IN NUTRITIONAL INTAKE AND SERUM CHOLESTEROL LEVELS OVER 50 YEARS IN TANUSHIMARU, JAPANESE MEN

doi:10.1136/jech.2011.142976c.59

¹H Adachi,* ²Y Hirai, ²M Enomoto, ²A Fukami, ²M Otsuka, ²S I Kumagae, ²Y Nanjo, ²E Esaki, ²E Kumagai, ²K Yoshikawa, ²K Yokoi, ²K Ogata, ²E Tsukagawa, ²A Kasahara, ²K Murayama, ²T Imaizumi. ¹*Department of Community Medicine, Kurume University School of Medicine, Kurume, Fukuoka, Japan;* ²*Department of Internal Medicine, Division of Cardio-Vascular Medicine, Kurume University School of Medicine, Kurume, Fukuoka, Japan*

Introduction Rapid socioeconomic development in Japan since beginning of the Seven Countries Study in 1958 has brought remarkable changes in lifestyle and dietary patterns. We investigated the relationship between time trends in nutrient intake and serum cholesterol levels in a Japanese cohort of the Seven Countries Study, in Tanushimaru, a typical farming town on Kyushu Island.

Methods Subjects totalled 628 in 1958, 539 in 1977, 602 in 1982, 752 in 1989, 402 in 1999, and 329 in 2009, and all of the subjects were men aged 40–64 years. Eating patterns were evaluated by 24 h dietary recall from 1958 through 1989, and by a food frequency questionnaire in 1999 and 2009. We also measured serum cholesterol levels in each health examination.

Results The total daily energy intake decreased from 2837 kcal in 1958 to 2289 kcal in 2009. The carbohydrate intake in percentage of total daily energy intake decreased markedly, from 84% in 1958 to 58% in 2009, in contrast to large increases during this period in protein intake (from 11% to 16%) and fat intake (from 5% to 22%). In proportion to

the dramatic change in protein and fat intake, serum cholesterol levels showed large increases (from 152.5 mg/dl to 207.7 mg/dl).

Conclusions In spite of such big dietary changes towards a westernized diet, the incidence of coronary artery disease in a rural Japanese area remains low. However, careful surveillance is needed in the future because of the remarkably increasing intake of fats, especially saturated fatty acids.

P1-67 FACTORS AFFECTING PATIENT'S ADHERENCE TO DIRECTLY OBSERVED TREATMENT (DOT) CARE PRACTICES IN DHAKA CITY

doi:10.1136/jech.2011.142976c.60

¹M A Hafez, ¹M Shahjahan, ²M S Flora, ¹A Afroz,* ¹K Kobura, ³S M Satter, ¹S J Mumu, ¹A Akhter, ¹F Rahman, ¹N Sumi, ¹K Fatema. ¹*Bangladesh Institute of Health Sciences (BIHS), Dhaka, Bangladesh;* ²*National Institute of Preventive and Social Medicine (NIPSOM), Dhaka, Bangladesh;* ³*International Center for Diarrhoeal Disease Research, (ICDDR), Dhaka, Bangladesh*

Introduction Directly Observed Treatment Short course (DOTS) was introduced in Bangladesh in 1993. Thereafter case detection and cure rate have increased remarkably. This cross sectional study aimed to estimate proportion of patients adhering to DOT and its influencing factors.

Method A two-stage cluster sampling method was followed. Dhaka city has 90 wards and 159 clinics providing DOT service of which 30 wards (clusters) were selected using systematic sampling technique. A total of 215 Pulmonary TB cases aged ³15 years, registered with all the 40 clinics of these 30 clusters were interviewed.

Results Of the respondents 61% were males. About 65% were aged between 20 and 39 years, mean age 31 (SD±12.6) years, about 50% had little or no education with average monthly income US\$ 152 (SD±110) and average family size 5 (range: 1–15) living in very poor housing condition. At the time of diagnosis 59% of the patients were smear +ve. Fifty-two per cent respondents took drug at centre and 48% at home. Adherence rate at clinic was 100% and at home 66%—overall 84% (95% CI 79.1 to 88.9) had adhered to DOT. Association was found between adherence and smear type at start, clinic type (govt or private) and family history of TB (p<0.05). Binary logistic regression suggests type of smear and family history of TB as correlates of adherence.

Conclusion Although respondents belong to low socio-demographic status, adherence rate seems satisfactory. But home level adherence was low. Creation of awareness and appropriate monitoring might improve the situation.

P1-68 EPIDEMIOLOGICAL PATTERN AND BURDEN OF DROWNING IN MAZANDARAN PROVINCE IN IRAN

doi:10.1136/jech.2011.142976c.61

S Akbarpour,* H Soori, A Khosravi, G khosro, S Azimi. *Safety promotion and injury prevention research center, Tehran, Iran*

Introduction Drowning is a serious public health problem in the northern provinces of Iran. The aim of this study was to describe the burden of drowning in Mazandaran province, Iran in order to inform public health priority setting and planning.

Methods Data from the Death Registry System, Legal Medicine Organization and the Ministry of Health were used to describe the burden of drowning in Mazandaran province Iran in 2008. The burden of drowning was calculated with using the standard WHO method.

Results In 2008, 273 people (91.2% male and 8.8% female) died from drowning. Mean age of death 25.3 (SD=11.7) years. Overall, 175 people were visitors and 98 residents. The death rate from drowning was 3.3 per 100 000 population. Most cases (93.4%) occurred at sea and in the month of August (33%). The overall number of life years lost was 7211 (4579 for visitors and 2632 for residents). The number of life years lost rate was 89 per 100 000 in residents. Most DALYs were in the age group 10–19 years.

Conclusion These data argue for improvement and expansion of protected beaches and increased surveillance with the creation of legislation to prohibit swimming in unprotected sea.

P1-69 IMPACT OF WEALTH STATUS ON HEALTH OUTCOMES IN PAKISTAN

doi:10.1136/jech.2011.142976c.62

¹A Alam,* ²S Nishtar, ³K Mohamud. ¹Shifa college of medicine, Islamabad, Pakistan; ²Heartfile, Islamabad, Pakistan; ³WHO, Islamabad, Pakistan

Objective To assess the independent impact of wealth status (as determined by a validated index) on health outcomes in Pakistan.

Methods Secondary data analysis of the Pakistan Demographic Health Survey (PDHS) database 2006–2007 was performed. The Maternal database consisted of 10 023 women aged 15–49 years, births database 39 049 children, while children's database consisted of 9177 children. Multivariate logistic regression analysis was performed using STATA V 9.0 and SPSS 10.0.

Findings The adjusted OR and 95% CI for having delivery attended by a skilled healthcare provider with reference to the poorest quintile were poorer 1.44 (1.19 to 1.75), middle 1.86 (1.52 to 2.28), richer 3.02 (2.43 to 3.76) and richest 5.40 (4.16 to 7.01), $p < 0.0001$. The adjusted OR and 95% CI of mortality among children under 5 years age in Pakistan with reference to the poorest quintile were poorer 0.89 (0.81 to 0.97), middle 0.72 (0.65 to 0.81), richer 0.69 (0.62 to 0.78) and richest 0.65 (0.55 to 0.76), $p < 0.0001$. Other indicators of child health; Neonatal mortality, Infant mortality, Vaccination status and reproductive health indicator such as emergency obstetric care availability were statistically significantly associated with wealth index quintiles, adjusting for confounding factors.

Conclusion These representative data from Pakistan quantify the burden of morbidity and mortality associated with unjust distribution of wealth in the country. There are wide disparities in access to health in different socioeconomic groups as evidenced by this study. Social protection for health is needed so that those in the informal sector are not excluded from accessing healthcare. In addition scale-up of poverty reduction strategies and promotion of inter-sectoral action is needed.

P1-70 PREVALENCE OF DEPENDENCY IN OLDER PEOPLE IN CHILE. FREQUENCY AND SOCIAL DIFFERENTIALS

doi:10.1136/jech.2011.142976c.63

C Albala,* H Sanchez, L Lera, A Fuentes, X Cea, F Salas. INTA, University of Chile, Santiago, Chile

Introduction The process of population ageing in developing countries has important economic and social consequences. Dependency in the elderly constitutes a main concern for them considering the associated need of care, institutionalisation and health costs.

Aim To assess the prevalence of dependency in older people in Chile.

Methods Cross-sectional study in a national representative sample of 4546 people 60 y and older (61.5% women) living in the community in Chile. After dementia screening, home interviews including socio-demographic variables, history of chronic diseases and disability/functional limitations were done. Dementia was assessed with a previously validated test (MMSE plus PFAQ). Dependency was defined as being bed-belted or having dementia or need of assistance to perform 1 ADL or unable to perform 1 IADL or need of assistance to perform 2 IADL.

Results The prevalence of dependency was 24.1% (95% CI 21.7 to 26.7), increasing with age, 25.3% in women and 22% in men, $p < 0.13$ and higher in people living in rural areas (33.5% 95% CI 34.8 to 32.1) than in urban areas (22.7% 95% CI 17.7 to 25.6) $p < 0.001$. Beneficiaries of the public Health System had twice dependency rate than beneficiaries of private health insurance (24.1% 95% CI 21.5 to 26.9 vs 11.6% 95% CI 5.7 to 22.4, $p < 0.01$). Age adjusted dependency was associated with < 8 years of schooling (OR 2.28; 95% CI 1.59 to 3.27) and living in rural areas (OR 1.59; 95% CI 1.23 to 2.1), but not with gender.

Conclusion Important social differentials were observed. The prevalence of Dependency was higher in people living in rural areas, in the less educated and in the poor.

Funding Funded by SENAMA and AECID

P1-71 INCIDENCE AND DETERMINANTS OF DISABILITY IN INSTRUMENTAL ACTIVITIES OF DAILY LIVING (IADL) IN ELDERLY

doi:10.1136/jech.2011.142976c.64

¹T da S Alexandre, ¹L P Corona,* ¹D P Nunes, ²J L F Santos, ³Y A de Oliveira Duarte, ¹M L Lebrão. ¹Department of Epidemiology, University of Sao Paulo, Sao Paulo, Brazil; ²Department of Social Medicine, University of Sao Paulo, Ribeirao Preto, Sao Paulo, Brazil; ³Department of Nursing Medical Surgery, University of Sao Paulo, Sao Paulo, Brazil

Introduction Knowing the incidence of disability in IADL in elderly is very important for planning health services.

Objective To analyse the incidence rate and determinants of disability in IADL in elderly people.

Methods Data comes from two rounds of a longitudinal survey - SABE study, which began in 2000 with a multistage clustered sampling which included 2143 people aged ≥ 60 years old living in Sao Paulo/Brazil. In 2000, 1034 elders without disabilities in IADL were selected. In 2006, the same activities were reanalysed and the incidence rate of disability was calculated based in a sample of 801 elderly. Logistic regression used IADL status in 2006 and in baseline: age, living condition, ability to write and read, marital status, smoking, medication, body mass index, physical activity, MMSE, depression, perception of vision and hearing, handgrip, self-report of hypertension, diabetes, heart and lung disease, osteoarthritis, cancer, stroke, joint pain, falls, hip fracture or wrist and number of comorbidities. Inferences were weighted to account for sample design.

Results The incidence of disability for women was 44.7/1000 person-years (95% CI 36.7 to 54.8) and for men was 25.2/1000 person-years (95% CI 18.5 to 35.0). Among men there was an independent relationship between incidence of disability and inability to write and read and poor perception of hearing adjusted for age. Among women, this relationship occurred with inability to write and read, poor perception of hearing, age and overweight or obesity adjusted by hypertension.

Conclusions Incidence rate of disability in IADL was greater in women. The determinants in both genders are similar, except age and overweight or obesity, important factors for women.