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Kaić B, Borčić B, Ljubičić M, Brkić I, Mihaljević I. Hepatitis A control in a refugee camp by active immunization. Vaccine 2001;19:3615-9.

Department of Epidemiology, Croatian National Institute of Public Health, Zagreb, Croatia

An outbreak of hepatitis A occurred among children of a refugee camp in Croatia. In order to disrupt the outbreak, the authors decided to vaccinate children from 1 to 15 years of age in the camp, in addition to intensified general preventive measures. Assuming high prevalence of hepatitis A virus antibodies within this population, an anti-HAV testing of the children eligible for vaccination was conducted. Of 108 children tested, 74 (68.5%) were anti-HAV positive. A total of 34 children were vaccinated. One month after vaccination, 31 previously negative children were tested for anti-HAV and 30 of them were found positive, suggesting a seroconversion rate of 96.8%. One child fell ill 5 days after vaccination, after whom no new cases of hepatitis A occurred. The authors conclude that active immunization is a successful means of stopping an outbreak of hepatitis A.

Bošnjak D, Marušić A. Croatia: legal regulation of doctors. Lancet 2000;14;356:1349-50.

Zagreb University School of Medicine, Croatia

Accompanying changes in the way health services in Croatia are organised has been a significant change in the way the medical profession is regulated. In 1995 the Croatian Medical Chamber was established, with legal powers. The responsibilities of physicians to their patients are spelled out in considerable detail. Most of these responsibilities are matched by provisions in Croatia's criminal law. Croatia has about 10,000 doctors and dentists and since 1998 19 cases have been resolved by the Medical Chamber and its commissions. Public health providers offer protection in medical negligence cases but this could change as more market-oriented health-care provision is introduced. In 1997 and 1998 only 60 malpractice claims under the criminal law were brought and most of those were dismissed.

Mustajbegović J, Žuškin E, Schachter EN, Kern J, Vrčić-Keglević M, Heimer S, et al. Respiratory function in active firefighters. Am J Ind Med 2001;40:55-62.

Andrija Štampar School of Public Health, Zagreb University School of Medicine, Zagreb, Croatia

The health effects of firefighting on respiratory function was investigated in a group of 128 active firefighters by recording respiratory symptoms and measuring lung function. In addition, 88 control workers, not exposed to known pollutants were studied for the prevalence of acute and chronic respiratory symptoms.Significantly higher prevalences of dyspnea, nasal catarrh, sinusitis, and hoarseness were recorded in firefighters compared to control workers ($p < 0.01$). One subject developed asthma symptoms following two intense firefighting episodes. A high prevalence of acute symptoms experienced during and after fire extinguishing was also documented among these firefighters. Eye and throat irritation as well as headache were prominent. A logistic regression analysis of chronic respiratory symptoms demonstrated that odds ratios were significant for both duration of work exposure and for smoking. Lung function testing demonstrated a decrease in FEF75 in relation to predicted suggesting obstructive changes in the smaller airways. A regression analysis of ventilatory capacity tests indicated a positive relationship of forced vital capacity with length of employment, 1 s forced expiratory volume as well as FEF50 were related to smoking, and FEF75 was related to both smoking and length of employment. These data suggest that firefighters are at risk for developing acute and chronic respiratory symptoms as well as obstructive airway changes.

Kurjak A, Bekavac I. Perinatal problems in developing countries: lessons learned and future challenges. J Perinat Med 2001;29:179-87.

Department of Obstetrics and Gynecology, Holy Ghost General Hospital, Zagreb, Croatia

Every year, approximately 600,000 women die of pregnancy-related causes - 98% of these deaths occur in developing countries. Complications of pregnancy and childbirth are the leading cause of death and disability among women of reproductive age in developing countries. Of all human development indicators, the maternal mortality ratio shows the greatest discrepancy between developed and developing countries. In fact, maternal mortality itself contributes to underdevelopment, because of its severe impact on the lives of young children, the family and society in general. Furthermore, in addition to more than half a million maternal deaths each year 7 million perinatal deaths are recorded and 8 million infants die during the first year of life. Maternal morbidity and mortality as well as perinatal mortality can be reduced through the synergistic effect of combined interventions, without first attaining high levels of economic development. These include: education for all; universal access to basic health services and nutrition before, during and after childbirth; access to family planning services; attendance at birth by professional health workers and access to good quality care in case of complications; and policies that raise women's social and economic status, and their access to property, as well as the labor force.

Pavlović M, Jazbec A, Šimić D, Ćorović N, Malinar M, Mimica M. Variation in survival in coastal and continental regions of Croatia – results of a longitudinal study. Eur J Epidemiol 2000;16:1061-8.

Institute for Medical Research and Occupational Health, Zagreb, Croatia

After 25 years of follow-up, regional variations in survival were analysed on a sample of 3343 participants (1780 female, 1563 male) from three urban and three rural municipalities in Croatia. Age of participants was in the range 35-54 years at the beginning of the study (1969). Cox regression for general mortality singled out one continental rural municipality (Virovitica) with the lowest survival in both genders. The relationship between the risk of death and age at the beginning of the study was approximately linear throughout its range for men, and after the age of 45 for women. Men showed a trend of better sur-

vival in the coastal region, which was consistent with findings of a similar concurrent study of rural Croatian population.

Turek S, Rudan I, Smolej-Narančić N, Szirovicza L, Čubrilo-Turek M, Žerjavić-Hrabak V, et al. A large cross-sectional study of health attitudes, knowledge, behaviour and risks in the post-war Croatian population (the First Croatian Health Project). Coll Antropol 2001;25:77-96.

Croatian Health Insurance Institute, Zagreb, Croatia

As the liberation of occupied Croatian territories ended the war in the country in 1995, the Ministry of Health and Croatian Health Insurance Institute have agreed to create the new framework for developing a long-term strategy of public health planning, prevention and intervention. They provided financial resources to develop the First Croatian Health Project, the rest of the support coming from the World Bank loan and the National Institute of Public Health. A large cross-sectional study was designed aiming to assess health attitudes, knowledge, behaviour and risks in the post-war Croatian population. The large field study was carried out by the Institute for Anthropological Research with technical support from the National Institute of Public Health. The field study was completed between 1995-1997. It included about 10,000 adult volunteers from all 21 Croatian counties. The geographic distribution of the sample covered both coastal and continental areas of Croatia and included rural and urban environments. The specific measurements included antropometry (body mass index and blood pressure). From each examinee a blood sample was collected from which the levels of total plasma cholesterol, triglycerides, HDL-cholesterol (High Density Lipoprotein), LDL-cholesterol (Low Density Lipoprotein), lipoprotein, and haemostatic risk factor fibrinogen were determined. The detailed data were collected on the general knowledge and attitudes on health issues, followed by specific investigation of smoking history, alcohol consumption, nutrition habits, physical activity, family history of chronic non-communicable diseases and occupational exposures. From the initial database a targeted sample of 5,840 persons of both sexes, aged 18-65, was created corresponding by age, sex and geographic distribution to the general Croatian population. This paper summarises and discusses the main findings of the project within this representative sample of Croatian population.

Vukšić-Mihaljević Z, Mandić N, Benšić M, Mihaljević S. Posttraumatic stress disorder among Croatian veterans: a causal model. Psychiatry Clin Neurosci 2000;54:625-36.

Psychiatric Department, Osijek University Hospital and School of Medicine, Osijek, Croatia

A total of 150 Croatian war veterans with the diagnosis of chronic combat-related PTSD, who sought treatment at Psychiatric Clinic, Osijek, Croatia, in the period 1993-1998, and who provided complete data, were selected as the sample for the present study from the treatment-seeking group of the ex-soldier population. Structural equation modeling is used to develop an etiological model concerning the relationships of premilitary risk factors, military entry conditions, war zone experiences, dissociative reactions, and homecoming reception with current symptoms of PTSD. An etiological model with satisfactory fit and parsimony was developed. In terms of the magnitude of variables' total contributions to the development of PTSD, war zone experiences are the most influential contributor which is followed by dissociative reactions, homecoming reception, military entry conditions and premilitary risk factors. Statistical significant direct effects to the development of PTSD were found for dissociative reactions and low family postwar support. The etiology of combat-related PTSD among Croatian veterans remains largely unexplained. Partial explanations are omission of other etiological factors, retrospective nature of the data and small study sample. The results are the source of questions for further research.

Vuletić S, Kern J, Sonicki Z, Ivanković D. Possibilities of See5 software in forecasting of life expectancy not achieving. Stud Health Technol Inform 1999;68:696-9.

Andrija Štampar School of Public Health, Zagreb University School of Medicine, Zagreb, Croatia

Results of application of See5 to epidemiological domain were presented. The aim of this paper is to find out if See5 can be used for forecasting whether life expectancy will be achieved or not. The basis for forecasting are data-attributes, predictors (anthropological data, living habits, laboratory data, blood pressure measured in years 1970/71, and the status of examinee - class (alive or dead) in 1990. Data were split at random into 10 blocks with approximately the same number of cases and the same distribution of classes. Results were given in the form of decision trees and rulesets, and tested through crossvalidation. The most interesting question - what are prediction-candidates for not achieving life expectancy estimated in the year of examination - did not give a satisfactory result: the accuracy of classification was about 70%. However, a very interesting fact is that each rule consists of at least one candidate predictor, usually considered as risk factor (e.g. high diastolic blood pressure and animal fat consumption).

Dražančić A. Antenatal care in developing countries. What should be done? J Perinat Med 2001;29:188-98.

Department of Gynecology and Obstetrics, University Medical School of Zagreb, Division of Perinatal Medicine, Zagreb, Croatia

In the West- and Middle-European countries by the introduction of antenatal care the perinatal mortality (PNM) rate decreased from about 60.0/1000 in the years 1920-1930 to about 40.0/1000 in 1950s. Further decrease to about 25.0/1000 in the 1970s was conditioned by an increase of number of antenatal visits and by extended indications for cesarean section. New technologies (amnioscopy, pH-metry, cardiotocography and ultrasound examinations) decreased the PNM rate to about 13.0/1000 in the year 1980. Regional organization with neonatal intensive care units decreased PNM rate to low values of 5.0-9.0/1000. The echo of the number of antenatal visits to PNM rate is illustrated on 36,855 deliveries at the University Clinic in Zagreb. In developing countries maternal and perinatal mortality is very high. The reason for that is a bad socioeconomic background and a lack of organized antenatal and perinatal health care system. The policy to decrease maternal and perinatal mortality is presented: the improvement of antenatal booking and of the number of prenatal visits of pregnant women; their childbearing under professional assistance. The organizing of maternity health care should be different from country to country, from region to region, respectively.

Babić-Banaszak A, Kovačić L, Mastilica M, Babić S, Ivanković D, Budak A. The Croatian health survey – patient's satisfaction with medical service in primary health care in Croatia. Coll Antropol 2001;25:449-58.

Andrija Štampar School of Public Health, Zagreb University School of Medicine, Zagreb, Croatia

The aim of the study was to investigate patient's satisfaction with nurses and general practice organisation in Croatia. A total of 2,252 patients 18 years of age and over from 47 randomly selected general practices were included in the study. A total of 72.1% of patients were satisfied with nurses and general practice organisation. Older and less educated patients were generally more satisfied. Patients were more pleased with nurses' behavior (81.9%) than with practice organisation (62.3%). Factor analysis revealed two underlying discriminates of patient satisfaction – "positive attitude towards the nurse" and "inaccessibility of practice". The former discriminate emphasized a great potential of nursing, which should b e taken into consideration in the transformation of health care system in Croatia.

Blažeković-Milaković S, Kern J, Kulenović M. Health status as geneologic burden in aging process. Coll Antropol 2000;24:79-89.

Andrija Štampar School of Public Health, Zagreb University School of Medicine, Zagreb, Croatia

There are only few studies on the influence of aging within a single family and even less of aging within several generations of the same family. Genealogic level is one way of getting into the process of family system and aging throughout time. The aim of the study was to determine the significance of genealogical burden with regard to the health status in examinees with different cognitive capabilities. The difference according to sex and age was not significant between the two groups. Health status of the examinees proband in both groups showed 34.4% healthy examinees in the group D and 65.3% in group G. The difference between the two groups was statistically significant. The difference of health status of parents (II. generation) was statistically significant in both groups. Morbidity of diseases was not statistically significant. Most of the ancestors from the grandmothers and grandfathers (III generation) died. Statistically significant difference is present among the diseases of the circulatory system and those of digestive system in this generation. Data on the ancestors of the IV. generation showed that all the relatives died in both groups. In conclusion, the health status of the examinees with higher impairment in the test of cognitive capabilities is worse and they come from the families with worse health status.

Božičević I, Orešković S. Risk factors in asthmatic patients in Croatia. Coll Antropol 2000;24:325-34.

Andrija Štampar School of Public Health, Zagreb University School of Medicine, Zagreb, Croatia

The aim of this case-control study was to investigate whether some factors, that are associated with development of asthma, are significantly more present in the observed group of asthmatic patients, in comparison to the control group. Participants included 111 cases with asthma, and 108 controls with no asthma. Data obtained from cases and controls were compared according the sex. The study was performed using a specially developed questionnaire and data were collected from medical documentation of cases. Results showed that a significantly high proportion of cases had lower socio-economic status, higher proportion of atopic diseases, and were more exposed to dampness in working environment, and passive smoking, both at home and at work. Cases also exhibited poorer sustainment of physical strains and psychological stresses, and considered their life quality was greatly reduced by asthma. Among asthmatic participants, there were fewer current smokers and non-smokers, and more ex-smokers.

Čapak K, Katalenić M, Barišin A. Food contamination monitoring in Croatia. Arh Hig Rada Toksikol 2001;52:169-75.

Croatian National Institute of Public Health, Zagreb, Croatia

The Croatian National Institute of Public Health Implements the statistical food safety monitoring programme for foods marketed in Croatia in accordance with effective laws and regulations. Laboratories for food safety control, certified by the Ministry of Health, report their findings in quarterly notifications, using the standard forms and issue statements of compliance or non-compliance with current regulations, specifying the cause in case of the latter. This paper brings the results for the period 1993-99 as an illustration of the monitoring programme.

Čatipović-Veselica K. The Type A-B behavior pattern in urban and rural men and women. Psychol Rep 2001;88:915-6.

Department of Medicine, Osijek University Hospital and School of Medicine, Osijek, Croatia

This study examined the prevalence of the Type A behavior pattern with Bortner's scale in a rural (n = 104) and urban (n = 200) sample of men and women in Slavonia, Croatia. The mean score on the Bortner scale for the rural sample was significantly lower than the mean for the urban sample. The results support the view that rural lifestyle suppresses manifestation of Type A characteristics.

Jureša V, Ivanković D, Vuletić G, Babić-Banaszak A, Srček I, Mastilica M, et al. The Croatian Health Survey - SF-36: I. General quality of life assessment. Coll Antropol 2000;24:69-78.

Andrija Štampar School of Public Health, Zagreb University School of Medicine, Zagreb, Croatia

The objective of the Croatian Health Survey was the assessment of population health related quality of life in the transitional environment of Croatia. Health status measures incorporate dimensions such as physical, psychological, and social functioning, role performance and perception of wellbeing. In order to assess health status, "The medical outcome study 36-item short-form health survey (SF-36) model" was used. A total sample of 5048 inhabitants (1983 males and 3065 females), 18 years and over, represents approximately 1% of the general population of Croatia. Mean scores were as follows: physical functioning (PF) 69.94, role-physical (RP) 63.01, bodily pain (BP) 64.51, general health (GH) 53.40, vitality (VT) 51.85, social functioning (SF) 72.96, role-emotional (RE) 72.42, mental health (MH) 61.71 and health transition (HT) 44.79. Results of the SF-36 health survey in Croatia are very much like the results in other European countries with indication that general quality of life is lower in Croatia.

Kovačić L, Laaser U. Public health training and research collaboration in South Eastern Europe. Med Arh 2001;55:13-5.

Zagreb University School of Medicine, Zagreb, Croatia

The health care systems in South Eastern Europe are characterised by a predominantly curative orientation. During the last decade public health became insufficient due to war as well as economic and political changes. Today there is a lack of competence in public health above all in health management and strategy development, but also in the fields of health surveillance and prevention. The great need for a sustainable collaboration and support in advanced training and continuous education of qualified professionals to reach required conditions was recognised. Therefore, the project for the development of training modules and research capabilities in public health in South Eastern European countries (SEE) was proposed to the Stability Pact (PH-SEE Project). The project is to support the reconstruction of postgraduate public health training through development of teaching materials in English for the Internet. A regional network of lecturers in the health sciences will be established. The up to date texts should be of international standard but also be of regional specificity.