

P5 - Posters/Visit to posters

Desigualdades en salud

Health inequalities

Jueves 2 de Octubre / Thursday 2, October
17:00:00 a/to 18:00:00

CAUSES OF DEATH AND SOCIAL CLASSES IN ROMANIA

Ligia Fat*, Tudor Drugan**

**Occupational Health, Institute of Public Health, Cluj Napoca, Romania. **Department of Informatics, University of Medicine, Cluj Napoca, Romania.*

Introduction: The special literature shows the existence of the morbidity and mortality differences between social classes in all the European countries. In each country for which data are available, chances of premature death were found to be higher among people with a lower educational level, a lower income or a lower social position. In Romania such studies were difficult to be done until now because there were insufficient information on the occupation. In this study we tried to analyse the relations between different social classes and specific causes of death and to evaluate the contribution of these causes in mortality of the different social classes.

Methods: Details from death records and occupations were extracted from the death certificates and working documents of 781 persons who died in the city of Cluj. Deaths were classified by cause according to the International Classification of Diseases 9th Revision: cancer, ischaemic heart disease, other cardiovascular disease, cerebrovascular disease, accidents (including suicide and injury), gastrointestinal disease, respiratory disease, and other disease. Occupational classes were defined according to the British Classification of the Social Classes that divide the occupations in 6 different categories: class I - professional, class II - managers/intermediate, class III(N) - non-manual skilled, class III(M) - manual skilled, class IV - partly skilled, class V - partly unskilled. The data were collected in the Microsoft Excel program and were statistically analysed using the SPSS 10 program. We used descriptive statistical methods and Anova and Chi Square tests.

Results: On the first place as causes of deaths were cancers (21%), followed by other cardiovascular diseases (20.9%) and ischaemic heart disease (20.2%). On the last places were the gastrointestinal diseases (0.5%) and the respiratory diseases (4.5%). With quite an equal frequency appeared the accidents (13.3%), other diseases (11.3%) and cerebrovascular diseases (8.3%). The histograms of the death ages for different causes of deaths had a normal distribution. The smallest mean death age was for the accidents and the highest for other cardiovascular diseases. The men died most frequently from ischaemic heart diseases, other cardiovascular diseases and cancers, and the women from cancers. Causes of death and sex were strongly associated ($p < 0.001$) and also the occupations and the causes of death ($p < 0.05$). The lowest socio-economic classes (IV and V) die more frequently from other cardiovascular diseases, ischaemic heart disease and cancers, while the highest socio-economic classes (I and II) die from cancers, ischaemic heart disease, accidents and other cardiovascular diseases.

Conclusions: There were statistically significant differences between the frequencies of cancers and other cardiovascular diseases in rural and urban according to sex ($p < 0.05$) and the frequencies of cancers, ischaemic heart diseases, other cardiovascular diseases and other diseases in connection with occupation and place of living ($p < 0.05$).

181

182

INEQUALITY OF WATER FLUORIDATION IN SOUTHERN BRAZIL - THE INVERSE EQUITY HYPOTHESIS REVISITED

Marco Aurelio Peres¹, Liliane Simara Fernandes², Karen Glazer Peres³
¹Department of Public Health, Federal University of Santa Catarina, Brazil. ²Work group in Public Health, University of West Santa Catarina-UNOESC, Brazil. ³Work Group in Public Health, University of West Santa Catarina-UNOESC, Brazil.

Objectives: The purpose of this ecological study was to investigate the association between social and economic indicators at the municipal level and the presence of water fluoridation and time when water fluoridation was implemented in the 293 municipalities of Santa Catarina State in Southern Brazil.

Methods: Several social and economic indicators were obtained from official Brazilian agencies as well as from UNICEF. Questionnaires were sent to local authorities and to the local government water supply Company to obtain information about the presence or not of a fluoridated water supply and the year when fluoridation was implemented. Differences in social and economic indicators between municipalities with and without fluoridated water and between those that have had this service for different lengths of time were compared by the Mann-Whitney U test. In addition, multiple logistic regression analyses was performed to identify associations between social and economic indicators at the municipal level and presence and time of implementation of water fluoridation.

Results: Results indicated that larger populations are associated with municipalities with fluoridated water. Larger populations, higher child development indexes and low illiteracy rates are associated with a shorter time since the implementation of water fluoridation.

Conclusion: The finding that less developed municipalities delayed the provision of water fluoridation corroborates the inverse equity hypothesis.

184

IS THERE A RELATIONSHIP BETWEEN SMOKING BEHAVIOUR AND SOCIOECONOMIC POSITION?

Loreta Strumylaite, Rima Kregzdyte
Institute for Biomedical Research, Kaunas University of Medicine, Kaunas, Lithuania.

Introduction: Most studies from industrialized countries show a distinct association between low socioeconomic position and smoking. The objectives of our study was to analyze how two dimensions of socioeconomic status, an individual (education) and a structural (occupation) indicator, are associated with ever, current and ex-smoking.

Methods: A cross-sectional survey was carried out in 1692 workers (655 men and 1037 women) aged 18-64 from three Ceramics Plants in Lithuania. The response rate varied from 76% to 82% for a given Plant. A questionnaire included basic information on education, work history, smoking. According to education the subjects were grouped into 3 gr: <8 yr, 9-12 yr and >12 yr; according to occupation the workers were divided into 4 gr: executives / officers, skilled non-manual, skilled manual and unskilled workers.

Results: The prevalence of current smoking was 51.5% in men and 14.8% in women. The figures for ever-smoking and ex-smoking were 67.6% and 16.2%, respectively, in men and 17.5% and 2.7%, respectively, in women. In cohort born 1930-1940 ever and current smoking was more prevalent in the lowest education group; in two following cohorts smoking was more prevalent in subjects with the highest education. And in cohort born after 1960 ever and current smoking significantly decreased in highly educated subjects. Men with >12 yr of education had 3 times lower chance of being ever smokers or ex-smokers than those educated <8 yr (adjusted OR 0.30 95% CI 0.13-0.66 and 0.27 95% CI 0.08-0.93). There was no relationship between current, ever and ex-smoking and occupation in men. Although women showed the opposite result: those with medium and highest education had almost 3 times greater chance to smoke than those with the lowest education. The officers and executives had lower chance to smoke than skilled non-manual or unskilled workers.

Conclusion: The data obtained suggest that ever smoking is associated with education of workers.

183

THE IMPACT OF SOCIAL DEVELOPMENT AT THE MUNICIPAL LEVEL ON CHILDREN AGED 5-6 WITH DENTAL CARIES AND TREATMENT NEEDED

Marco Aurélio Peres¹, Karen Glazer Peres², José Leopoldo Ferreira Antunes³, Simone Rennó Junqueira³, Paulo Frazão⁴, Paulo Capel Narvai⁴

¹Department of Public Health, Federal University of Santa Catarina- UFSC, Florianópolis, Brazil. ²Public Health Research Group, University of West Santa Catarina-UNOESC, Joaçaba, Brazil. ³Dental School, University of São Paulo-USP, São Paulo, Brazil. ⁴Faculty of Public Health, University of São Paulo-USP, São Paulo, Brazil.

Objectives: This ecological research investigated the association between social development indicators at the municipal level and dental caries and treatment need of children aged 5-6 years in the State of São Paulo, Brazil, by surveying 15,385 oral examination records related to children living in 129 cities.

Methods: Dental caries, measured by dmft index, corresponding to the average number of decayed, missing and filled deciduous teeth, and care index were the outcomes studied. Explanatory variables were child development index, human development index, illiteracy rate among subjects older than 20 years, household income, Gini coefficient, insufficient income, fluoridated water supply, dentist rate per 10,000 inhabitants, dentists in the public service per 10,000 inhabitants, and weekly hours of dentist work in the public service per 10,000 inhabitants. Multiple linear regression models were fitted to the two dependent variables - dmft index and care index.

Results: Results of multiple linear regression showed that low child development index, high illiteracy rate and absence of fluoridated water in the city were associated with a high dmft index. Child development index was strongly associated with care index indicating that, the higher the child development index the higher the care index, whilst the rate of dentists per 10,000 inhabitants in the public service showed borderline statistical significance.

Conclusion: In conclusion, the results suggest that child development index and illiteracy rate among subjects older than 20 years at the municipal level should be used as predictors of dental caries in children aged 5-6 years, and support the role of fluoridated water.

185

EFFECT OF UNSTABLE EMPLOYMENT ON RISK OF DEATH DURING ECONOMIC TRANSITION IN POLAND - A SMALL AREAS ANALYSIS

Pawel Zagodzdzon, Leszek Zaborski, Jan Ejsmont
Dept. of Hygiene and Epidemiology, Medical University of Gdansk, Gdansk, Poland.

The relationship between unemployment and increased mortality has been reported in western industrialized countries. The aim of this study was to assess the influence of the changes in the level of unemployment on survival in general population in Northern Poland at the time of economic transition. To analyze the association between the unemployment and risk of death we collected survival data from 62736 death certificates and data on rates of unemployment from 8 regions of Gdansk Province from period 1991-1996. Kaplan-Meier method and Cox proportional hazard model were used in univariate and multivariate analysis. A change of unemployment rate (percentage) in the year of death in the area of residence, sex and educational level (6 categories) were included into multivariate analysis. The percentage change of unemployment rate was associated with significantly worse overall survival: hazard ratio 1.02 95% confidence interval 1.016 to 1.024. The strongest association was observed for risk of death from cardiovascular diseases (hazard ratio 1.036 95% confidence interval 1.032 to 1.042). An increased unemployment rate was also associated with significantly worse survival compared to not increased unemployment rate in the area of residence (hazard ratio 1.2 95% confidence interval 1.17 to 1.23 in univariate analysis and hazard ratio 1.1 95% confidence interval 1.08 to 1.12 in multivariate analysis).

Conclusion: Although this observed association is prone to uncontrolled biases or unmeasured confounders the change of unemployment rate may be a useful ecological measure of socioeconomic risk factors influencing survival.

186

SOCIAL AND BIOLOGICAL EARLY LIFE INFLUENCES ON PREVALENCE AND SEVERITY DENTAL CARIES IN CHILDREN AGED 6: A LIFE COURSE STUDY IN BRAZIL

Marco Aurélio Peres¹, Maria do Rosario Dias de Oliveira Latorre², Aubrey Sheiham³, Karen Glazer Peres⁴, Fernando Celso Barros⁵, Pedro Gonzales Hernandez⁶, Angela Maria Nunes Maas⁶, Ana Regina Romano⁶, Cesar Gomes Victora⁷

¹Department of Public Health, Federal University of Santa Catarina - UFSC, Florianópolis, Brazil. ²Department of Epidemiology of School of Public Health, University of São Paulo, São Paulo, Brazil. ³Department of Epidemiology and Public Health, University College London, London, United Kingdom. ⁴Dental School, University of South of Santa Catarina, Tubarão, Brazil. ⁵Latin American Center for Perinatology and Human Development, PAHO/WHO, Montevideo, Uruguay. ⁶Dental School, Federal University of Pelotas, Pelotas, Brazil. ⁷Department of Social Medicine, Federal University of Pelotas, Pelotas, Brazil.

Objective: The aim of this study was to investigate the relationship between social and biological conditions experienced in very early life and dental caries in children aged 6 using a life course approach.

Methods: The design was a dental caries cross-sectional study nested in a birth cohort study started in Pelotas, Brazil, in 1993. The cross-sectional study was carried out in 1999. A sample of 400 6 years-old children was selected from a sample of all live births in 1993 which included all children with low birthweight. Consequently, was necessary to calculate a weighted factor for the dental caries study to assure a representative sample. The World Health Organisation (1997) criteria were used for dental caries. Results from the oral health study were linked to the data concerning perinatal and childhood health and illnesses and family social conditions collected at birth, 1, 3, 6 and 12 months, and in the sixth year of life. Dental caries was the outcome measured by the decay, missing and filled index (dmft) according to two ways: 1) occurrence of dental caries: dmft 0 compared with dmft less or equal to 1; 2) very low dental caries: dmft zero and 1 compared with high dental caries, dmft greater or equal to 4. Unconditional univariate and multiple logistic regression analysis were performed following the theoretical model.

Results: For the occurrence of dental caries were risk factors mother educational level at children birth equal or less than 8 years (Odds Ratio (OR) = 2.0 - Confidence interval of 95%, [95% CI = 1.2-3.3]); family income between 1.1 to 6 minimum wage (OR = 2.1 [95% CI = 1.1-4.1]), family income equal or less than one minimum wage (OR=3.0 [95% CI = 1.3-7.0]), child who did not attend day care centre at sixth year of life (OR = 2.6 [95% CI = 1.5-4.6]) and children with sweet consumption of at least once a day at 6 years (OR = 2.0 [95% CI = 1.2-3.2]). For severity of dental caries the results indicated that those from traditional petit bourgeoisie (OR = 8.7 [95% CI = 1.3-58.9]); those from proletariat (OR = 7.7 [95% CI = 1.2-49.6]); fathers with equal or less than 8 years of study when child was born (OR=2.2 [95% CI = 1.2-4.1]); child height by age deficit at 12 months (OR = 3.6 [95% CI = 1.1-11.1]); child who did not attend day care centre at sixth year of life (OR = 2.3 [95% CI = 1.2-4.7]); children with sweet consumption of at least once a day at 6 years (OR = 2.3 [95% CI = 1.3-3.9]) and child who brush their teeth less than once a day at 6 years (OR = 3.1 [95% CI = 1.1-9.0]) were risk factors for high dental caries after controlling for possible cofounders.

Conclusions: Strategies for oral health care should include intersectoral approaches to health promotion based upon a population strategy and a common risk approach.

188

PERCEPCIÓN DE LA CONFLICTIVIDAD SOCIAL, UN ASPECTO RELEVANTE EN LA SALUD DE UNA COMUNIDAD MARGINADA DE COLOMBIA

Mireya Urrea, Erika Sierra, Sandra Farietta, Miguel Martin

Unidad de Bioestadística-Graal, Metodología en Salud Pública, Universidad Autónoma de Barcelona, Barcelona, España.

Introducción: Las condiciones de conflictividad social pueden ser percibidas de forma indistinta por los miembros de una población e incluso en pequeñas comunidades, siendo el resultado de la situación de pobreza socioeconómica, de violencia social e intrafamiliar en la que se vive. El objetivo del proyecto es describir los problemas sociales que percibe una comunidad afrocolombiana desprotegida y vulnerable, del municipio isleño de Mosquera al suroeste de Colombia.

Metodología: A partir de los datos regionales de morbilidad de la población y de bienestar social, se realiza un cuestionario tipo encuesta, como vía de acercamiento y comunicación con la comunidad. Se determinan variables que pueden ser el reflejo de las condiciones sociales de dicha comunidad, en cuanto a problemas percibidos en el entorno, tenencia de armas y uso dado, y violencia intrafamiliar. El análisis es estrictamente descriptivo, se verifica el porcentaje de no respuesta, y se definen los problemas percibidos como relevantes para la comunidad.

Resultados: El total de familias encuestadas fue 354. La problemática social referida como más frecuente es el alcoholismo (51,4%), seguido de la prostitución (5,4%), presencia de paramilitares, guerrilla y delincuencia común (1,7%) respectivamente, drogadicción (0,3%), en el 21,2% del total de familias no se obtuvo respuesta. El 73,2% de los encuestados tenían por lo menos un arma en casa, refieren que el uso dado es doméstico y laboral, en el 18,9% no hay respuesta. En el 35,7% de los hogares se pudieron detectar casos de violencia doméstica, aunque el 19,7% no respondió a estas variables. Con relación al porcentaje de no respuestas, la totalidad de los casos corresponde a una zona al parecer más desfavorecida socioeconómicamente en cuanto a servicios públicos y socio-sanitarios, y de más difícil acceso.

Conclusiones: Los resultados son una aproximación a los problemas de conflictividad social percibidos por la comunidad, reflejan las condiciones de vida de la población con su entorno y su estado de bienestar. Así mismo, indican la necesidad de realizar un análisis cualitativo que permita caracterizar la situación social de la población.

187

IDENTIFICACION DE LOS FACTORES DE POBREZA ASOCIADOS A LA SALUD DE LOS MENORES DE 14 AÑOS EN SALAHONDA-TUMACO, COLOMBIA

Mireya Urrea, Erika Sierra, Sandra Farietta, Miguel Martin

Unidad de Bioestadística-Genera, Metodología en Salud Pública, Universidad Autónoma de Barcelona, Barcelona, España.

Introducción: Salahonda es un municipio isleño al suroeste Colombia. Es una comunidad afrocolombiana, con condiciones precarias de vida y carencia de servicios públicos mínimos básicos, factores que pueden influir en la prevalencia de enfermedades infecciosas. El objetivo del proyecto es identificar los factores de pobreza asociados al desarrollo de Infección Respiratoria Aguda (IRA), Enfermedad Diarréica Aguda (EDA), Otitis media (OM) e Infecciones en la piel en menores de 14 años.

Metodología: Partiendo de datos disponibles de morbilidad y del censo de 1998, del Plan Local de Salud, Sociedad Colombiana de Pediatría, Ministerio de Salud y Secretaría de Salud del Departamento, se realiza un cuestionario tipo encuesta. Se determinan las variables relacionadas con aspectos generales de la vivienda, abastecimiento de agua y alcantarillado, así como antecedentes familiares, perinatales y de salud del menor. A partir del perfil descriptivo de la población, se definen los factores relacionados con los principales problemas de salud, valorando la probabilidad de padecer alguna de las patologías más relevantes, mediante la transformación inversa de las OR ajustadas.

Resultados: En 720 familias encuestadas viven 1.510 menores de 14 años, con media de edad de 6,93 años (DE= 4,0 años). El 40% no tienen el esquema de vacunación completo para su edad. El 60% ha presentado algún episodio de IRA en los últimos dos meses. El 30,8% en los últimos 15 días ha tenido EDA que ha requerido tratamiento médico. El 12% han tenido una OM supurativa, y el 34% algún tipo de infección dermatológica. En cuanto a la vivienda, viven 5,3 habitantes (DE=2,7) por casa, el 86% son casas de madera, 62% de ellas están en riesgo de inundación y desplome, 55,6% carecen de baño, el 97,6% no tienen acceso a los servicios de alcantarillado y energía, el 83,2% disponen de abastecimiento de agua sólo a través de un tubo madre. La probabilidad de padecer IRA es del 76,7% en niños con antecedente de alergias, que viven en una casa deteriorada en riesgo de inundación, sin acceso a servicios de acueducto, alcantarillado o disposición de basuras. La probabilidad de tener EDA en el 26,3% se asocia a la convivencia con animales y en el 54,1% son familias que cocinan con leña en una vivienda deteriorada, sin servicios públicos. Factores que condicionan la aparición de OMA con una probabilidad del 94,3% son las mismas con relación a las características de la vivienda y carencia de ventilación en las habitaciones.

Conclusiones: Este análisis describe los principales problemas de salud de la población infantil y los factores de pobreza asociados, lo que permite orientar acciones socio-sanitarias para disminuir su morbilidad o la erradicación de éstos problemas de salud.

189

EL CONSUMO DE TABACO Y LOS FACTORES SOCIOECONÓMICOS Y FAMILIARES EN LAS MUJERES GALLEGAS

Begoña Alonso de la Iglesia, M^a Isolina Santiago Pérez

Dirección Xeral de Saúde Pública, Consellería de Sanidade. Xunta de Galicia, Santiago de Compostela.

Objetivo: Analizar los factores socioeconómicos y familiares asociados al consumo de tabaco en las mujeres gallegas de 15 a 65 años.

Métodos: Se analizan los datos relacionados con el consumo de tabaco recogidos en la Encuesta de salud sanitaria y social a las mujeres. Galicia, 2000. El tamaño muestral de la encuesta fue determinado para garantizar la representatividad en dos grupos de edad: 15-44 y 45-64; en cada uno de ellos se estudiaron 1.111 mujeres seleccionadas mediante muestreo polietápico estratificado. El trabajo de campo se realizó en enero de 2.000, mediante entrevista personal en el domicilio de las encuestadas, a través de un cuestionario estructurado de 67 preguntas cerradas. Se recogieron datos sobre consumo de tabaco, clasificándose para este análisis en "Fuma" (fumadoras diarias y ocasionales) y "No fuma" (ex-fumadoras y nunca fumadoras), tipo de actividad (trabajo remunerado, labores del hogar, labores del campo, cuidado de niños y cuidado de enfermos), problemas personales (falta de trabajo, dificultades económicas, dependencia, relaciones familiares, violencia familiar, vivienda y soledad) y consumo de alcohol. Se estimaron porcentajes y la asociación entre variables se estudió con la prueba Ji-cuadrado de Pearson.

Resultados: El 27,3% de las mujeres gallegas de 15 a 64 años son fumadoras habituales; por grupos de edad, estos porcentajes son 37,6% y 13,6% en menores y mayores de 45 años, respectivamente. El realizar un trabajo remunerado está asociado al consumo de tabaco solo en las mujeres de 45-64 años (p < 0,005), en las que el porcentaje de fumadoras es mayor si realizan esta actividad (14% vs 7%). No se observa asociación con las labores del hogar y el cuidado de niños o enfermos. El consumo de tabaco es mayor en las mujeres que no trabajan en el campo (32% vs 10%), que están sin trabajo (45% vs 25%) y que tienen dificultades económicas (42% vs 26%). El resto de problemas personales no se asocian con un mayor consumo. En las mujeres jóvenes hay una clara asociación (p < 0,005) entre consumo de alcohol y tabaco, siendo el porcentaje de fumadoras menor en las abstemias (35% vs 43%).

Conclusiones: El consumo de tabaco entre las mujeres gallegas se asocia a situaciones de paro y dificultades económicas, coincidiendo con lo observado en estudios similares realizados en otros países desarrollados.

SOCIAL TIES AND MORTALITY IN ELDERLY. CRACOW STUDY

Piotr Brzyski, Beata Tobiasz-Adamczyk

Department of Medical Sociology, Faculty of Medicine Jagiellonian University, Cracow, Poland.

Introduction: The association between social ties and mortality in elderly have become a topic of increasing interest and research in social epidemiology, but little attention has yet been directed to this relation in Polish population of elderly. The aim of the study was to assess the role of social ties in mortality risk of old old community-dwelling citizens of Cracow.

Methods: The study of 30 months mortality was performed in group of 607 participants of two base-line surveys conducted at 12 year interval. Index of social ties measured, overall social connectedness combining information an individual types of ties into a single scale has been constructed.

Results: During the 30 months follow-up study 83 participants died of the study group of 607 elderly. Univariate analysis conducted for males showed that risk of death was decreasing with high frequency of social relations face to face (contacts with 5 or more persons per week) (ExpB=0,38). Such factors like living with non-relative (ExpB=2,45) and lack of church activity (ExpB=2,46) have been found to increase significantly death risk. Multivariate regression model defining independent predictors of mortality demonstrated that low level of social ties had significant effect on mortality risk in old-old males (ExpB=17,49). Univariate analysis performed for females confirmed that risk of death decreased with higher level of education (ExpB=0,54), high level of independence in (ADL) daily living activities (ExpB=0,77). The risk of death increased with age (ExpB=1,33), instrumental support from family (ExpB=3,66), lack of church activity (ExpB=2,69) and living with non-relative (ExpB=2,45). Multivariate analysis showed that risk of death increased in females independent in daily living activities during I base-line study but needed instrumental support from the family during the II base-line study (ExpB=3,31).

Conclusions: Study confirmed that predictors of mortality independently affecting mortality of old-old males and females have been found to be directly related to social ties. Data should be used in geriatric programme performed by social services supporting the role of social issues in improving the healthy ageing.