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Abstracts
Parental views of the development of children in a rural South African community.

Johnson V, Clark T, Fleming JW.

Prairie View A&M University in Houston, Texas, USA.

The purpose of this study is to describe how parents/guardians, reported on the development of their children, their perceptions of social support, satisfaction, and their level of depression. This is an aspect of a larger study conducted to create a database that will help to examine and describe the health and developmental status of children and their families. The results suggested that the parent's satisfaction had a direct correlation with the social support that they received from their families and the community. The study also revealed that the level of depression of the parents was directly associated with their degree of satisfaction.

Publication Types:
Research Support, Non-U.S. Gov't

PMID: 17176810 [PubMed - indexed for MEDLINE]

Parents' perception of their children's development, perception of satisfaction, social support and level of depression.

Clark T, Johnson V, Fleming JW.

Case Western Reserve University, USA.

The purpose of this study was to describe how parents and guardians in rural South Africa reported on the development of their children, their perception of social support and satisfaction, their level of depression, and the relationships that exist among the variables. The data from a larger research study were used to answer these questions: Is there a relationship between the child's development status and the parents/guardians level of satisfaction and social support? Is there a difference in the educational level of the parents/guardians and their perception of social support and the level of
satisfaction? What is the percentage of parents/guardians working/not working?
Is there a relationship between the status of work of the parents/guardians and the level of depression? Is there a relationship between the age of the parents/guardians and their level of depression? A convenience sample of 198 parents/guardians was recruited. Interviews were conducted using a structured interview guide. Relationships and differences were analyzed using Pearson's r correlation index, paired t-tests and regression analysis. The majority (73.7%) of the respondents were unemployed. No significant relationships were found between the child's developmental status and the parents/guardians perceived level of social support and satisfaction. However, the difference between the educational level of parents/guardians and the level of perceived social support was significant. Additionally, as the amount of family strains increased so did the parental level of depression.

Publication Types:
Research Support, Non-U.S. Gov't

PMID: 17176809 [PubMed - indexed for MEDLINE]


Health care and developmental status of children and their families.


Department of Nursing, Medical University of South Africa.

A description of the health care and developmental status of children from a database created from a study done in a rural community of a province in South Africa. One hundred and ninety-eight parents/guardians responded to questions from structured interview guide. Findings suggest that most of the children are healthy. There appears to be evidence of some progress since the end of apartheid. There, however, still appears that much more is needed to meet the needs of the population living in this rural community.

PMID: 17176808 [PubMed - indexed for MEDLINE]


Overview of health and development of children and their families: health and
This paper provides an overview of two studies designed to establish data bases that would aid in describing the health and development of children and their families and the health and functioning of the elderly in a rural community in South Africa.

Publication Types:
- Research Support, N.I.H., Extramural
- Review

PMID: 17176807 [PubMed - indexed for MEDLINE]


Comment on:

Strategies for reducing maternal mortality.


Publication Types:
- Comment
- Letter

PMID: 17174700 [PubMed - indexed for MEDLINE]


Comment on:

Reducing maternal mortality where rates are greatest.


Publication Types:
- Comment
- Letter
INTRODUCTION: Worldwide, urolithiasis is the third most common urological disease affecting both males and females. Both genetic and environmental factors contribute to stone formation. The recurrence rate is approximately 50%, rising to 70% within 10 years and this condition represents a significant healthcare cost burden. An unusually frequent history of urolithiasis has been observed among patients from the rural area of Thebes, Viotia, Greece. Objective: To determine the prevalence of urolithiasis in Thebes. METHODS: A representative sample of persons from the rural area of Thebes was questioned about the occurrence of urinary stones during their lifetime, and acute urolithiasis in 2005. A logistic regression model was used to contrast individuals with lithiasis to those without lithiasis. RESULTS: A total of 422 subjects participated in the study. We found a 15% prevalence of urolithiasis in the rural population of Thebes. The rate was slightly higher in men than in women in almost all age groups questioned, although this was not statistically significant. No case of urolithiasis was found in subjects under the age of 17 years. The prevalence of urolithiasis appeared to increase with age in both men and women. Those drinking bottled water were less likely to have lithiasis. CONCLUSION: The life time prevalence rate of urolithiasis observed in the rural area of Thebes was higher to that reported in other studies performed among males and females in the general population of Europe.
INTRODUCTION: The healthcare system in South Africa is based on the district health system through a primary healthcare approach. Although many vision and mission statements in the public healthcare sector in South Africa state that the service aspires to be holistic, it is at times unclear what exactly is meant by such an aspiration. The term 'holism' was coined in the 1920s and describes the phenomenon of the whole being greater than the sum of the parts. Over the past two decades the term has entered into many academic disciplines as well as popular culture. Also within public healthcare services, despite predominantly biomedical approaches, there is the aspiration to offer a more holistic service. As part of a larger research study, the limitations to working holistically in the public sector in a rural sub-district in South Africa were explored.

METHODOLOGY: The study used a participatory action research design that allowed participants a large degree of influence over the direction of the study. The research group consisted of four primary healthcare nurses and one medical doctor, all working in the public sector in a rural sub-district. The research group took part in the process of design and data gathering phases, as well as analysing and making meaning of the data generated. After a thematic analysis of the transcribed meetings, interviews and field notes, the themes were shared with the participants, who arranged them into a graphic representation showing the interrelationships of the themes. RESULTS: From analysis of the data it was clear that there were significant limitations to practicing holistically in the public sector of the rural sub-district in which the study took place. The limitations were grouped into those arising from within the public healthcare system and those outside the healthcare system. Within the healthcare system, the main factors limiting holistic care were: limited resources; poor training in and knowledge of holistic care; poor supervision; distance from the community; the referral system, intersectoral work and bureaucracy. Outside the healthcare sector the following factors challenged the provision of holistic care: poverty; poor nutrition; HIV/AIDS; and the cultural context. All the
limitations were found to contribute to the danger of burnout among healthcare workers who wanted to work holistically. The limitations were also found to have a negative impact on the healthcare worker-patient relationship, thereby further challenging holistic care. CONCLUSION: A number of aspects of the healthcare provision system that contributed to limiting the provision of holistic care could be changed quite readily, if there was a will to do so. Many of the issues seemed to plague the healthcare system generally, not only in relation to the provision of holistic care (such as supervision or a response to poverty). The close relationship between difficulty in providing a holistic healthcare service and burnout was an important finding that deserves further exploration.

PMID: 17144772 [PubMed - indexed for MEDLINE]


Effect of a structural intervention for the prevention of intimate-partner violence and HIV in rural South Africa: a cluster randomised trial.


Rural AIDS and Development Action Research Programme, School of Public Health, University of the Witwatersrand, Acornhoek, South Africa. pronyk@soft.co.za

BACKGROUND: HIV infection and intimate-partner violence share a common risk environment in much of southern Africa. The aim of the Intervention with Microfinance for AIDS and Gender Equity (IMAGE) study was to assess a structural intervention that combined a microfinance programme with a gender and HIV training curriculum. METHODS: Villages in the rural Limpopo province of South Africa were pair-matched and randomly allocated to receive the intervention at study onset (intervention group, n=4) or 3 years later (comparison group, n=4). Loans were provided to poor women who enrolled in the intervention group. A participatory learning and action curriculum was integrated into loan meetings, which took place every 2 weeks. Both arms of the trial were divided into three groups: direct programme participants or matched controls (cohort one), randomly selected 14-35-year-old household co-residents (cohort two), and randomly
selected community members (cohort three). Primary outcomes were experience of intimate-partner violence—either physical or sexual—in the past 12 months by a spouse or other sexual intimate (cohort one), unprotected sexual intercourse at last occurrence with a non-spousal partner in the past 12 months (cohorts two and three), and HIV incidence (cohort three). Analyses were done on a per-protocol basis. This trial is registered with ClinicalTrials.gov, number NCT00242957.

FINDINGS: In cohort one, experience of intimate-partner violence was reduced by 55% (adjusted risk ratio [aRR] 0.45, 95% CI 0.23-0.91; adjusted risk difference -7.3%, -16.2 to 1.5). The intervention did not affect the rate of unprotected sexual intercourse with a non-spousal partner in cohort two (aRR 1.02, 0.85-1.23), and there was no effect on the rate of unprotected sexual intercourse at last occurrence with a non-spousal partner (0.89, 0.66-1.19) or HIV incidence (1.06, 0.66-1.69) in cohort three. INTERPRETATION: A combined microfinance and training intervention can lead to reductions in levels of intimate-partner violence in programme participants. Social and economic development interventions have the potential to alter risk environments for HIV and intimate-partner violence in southern Africa.

**Publication Types:**
- Randomized Controlled Trial
- Research Support, Non-U.S. Gov't

**PMID: 17141704 [PubMed - indexed for MEDLINE]**


Levels and trends of demographic indices in southern rural Mozambique: evidence from demographic surveillance in Manhica district.

Nhacolo AQ, Nhalungo DA, Sacoor CN, Aponte JJ, Thompson R, Alonso P.

Centro de Investigacao em Saude da Manhica, Ministerio de Saude, Manhica, Maputo, Mozambique. ariel.nhacolo@manhica.net

BACKGROUND: In Mozambique most of demographic data are obtained using census or sample survey including indirect estimations. A method of collecting longitudinal demographic data was introduced in southern Mozambique since 1996.
(DSS -Demographic Surveillance System in Manhica district, Maputo province), but the extent to which it yields demographic measures that are typical of southern rural Mozambique has not been evaluated yet. METHODS: Data from the DSS were used to estimate the levels and trends of fertility, mortality and migration in Manhica, between 1998 and 2005. The estimates from Manhica were compared with estimates from Maputo province using the 1997 National census and 1997 Demographic and Health Survey (DHS). The DHS data were used to estimate levels and trends of adult mortality using the siblings' histories and the orphanhood methods. RESULTS: The populations in Manhica and in Maputo province are young (44% <15 years in Manhica and 42% in Maputo); with reduced adult males when compared to females (all ages sex ratio of 78.7 in Manhica and 89 in Maputo). Fertility in Manhica is at a similar level as in Maputo province and has remained around 5 children per woman, during the eight years of surveillance in Manhica. Although the infant mortality rate (IMR) in Mozambique has decreased during the last two decades (from 148 deaths per 1000 live births in 1980 to 101 in 2003), it has remained stable around 80 in Manhica during the surveillance period. Adult mortality has increased both in Manhica (probability of dying from ages 15 to 60 increased from 0.4 in 1998 to 0.6 in 2005 in Manhica, from 0.3 in 1992 to 0.4 in 1997 in Maputo province and from 0.1 in 1980 to 0.6 in 2000 in Mozambique). Consequently, the life expectancy decreased from 53 to 46 in Manhica and from 42 years in 1997 to 38 in 2004 in Mozambique. Migration is high in Manhica but tends to stabilise after the movements of resettlement that followed the end of the civil war in 1992. CONCLUSION: The population under demographic surveillance in Manhica district presents characteristics that are typical of southern rural Mozambique, with predominance of young people and reduction of adult males. Labour migration and excess adult male mortality are the major factors for the reduction of adult males. Mortality is high and only infant mortality has started to stabilise while adult mortality has increased, and as consequence, life expectancy has decreased. The Manhica DSS is an adequate tool to report demographic measures for southern rural Mozambique.

Publication Types:
- Research Support, Non-U.S. Gov't
Unchanged asthma prevalence during 1990-1999 in rural Alaska Natives.
Martinez P, Weiss BD.
Alaska Native Medical Center, Anchorage, Alaska, USA.

OBJECTIVES: The prevalence of asthma has been increasing throughout the world, but the reasons for the increase are unclear. Some have hypothesized that the increase is due to industrial and agricultural pollutants in urban and rural areas, respectively. The objective of this research was to determine if the prevalence of asthma has increased in a remote area of Alaska where the population lives a subsistence lifestyle and is not exposed to such pollution.

STUDY DESIGN: Retrospective review of medical records to determine the prevalence of asthma.

METHODS: We reviewed medical records of 1200 children, aged 0-10 years, who lived in the Yukon-Kuskokwum Delta (YKD) region of western Alaska between 1990 and 1999. The entire YKD population receives health care from a single medical system, so records provide a complete picture of each patient's health care. Data collected from the medical records included demographics, and the presence or absence of a diagnosis of asthma or reactive airway disease (RAD).

RESULTS: Over the 10-year period from 1990-1999, there was no significant change in the percentage of children who had a diagnosis of asthma (2.0% in 1990 and 3% in 1999), or RAD (9.6% in 1990 and 9.6% in 1999).

CONCLUSIONS: In a population of children not exposed to urban industrial, or rural agricultural pollutants, there was no change in the prevalence of wheezing or asthma between 1990 and 1999.
Since several studies indicated that farmers and agricultural workers had an excess risk of brain cancer, the National Institute for Occupational Safety and Health initiated the Upper Midwest Health Study to examine risk of intracranial glioma in the non-metropolitan population. This population-based, case-control study evaluated associations between gliomas and rural and farm exposures among adults (ages 18 to 80) in four upper midwestern states (Iowa, Michigan, Minnesota, Wisconsin). At diagnosis/selection, participants lived in non-metropolitan counties where the largest population center had fewer than 250,000 residents. Cases were diagnosed 1 January 1995 through 31 January 1997. Over 90% of 873 eligible ascertained cases and over 70% of 1670 eligible controls consented to participate. Participants and nonparticipants, evaluated for "critical questions" on main and refusant questionnaires, differed significantly in farming and occupational experience, ethnicity, education, and lifestyle. The 1,175 controls were more likely than the 798 cases to have reported ever drinking alcohol (77% vs. 73%, adjusted odds ratio (OR) 0.73, 95% confidence interval (CI) 0.59-0.92) and having had panoramic dental x-rays (34% vs. 29%, OR 0.75, CI 0.61-0.92). Controls spent a greater percentage of their lives in non-metropolitan counties (78% vs. 75%, OR 0.81, CI 0.67-1.09). Among ever-farmers, controls were more likely to have had exposure to farm insecticides (57% vs. 50%, OR 0.75, CI 0.59-0.95) and farm animals (96% vs. 91%, OR 0.48, CI 0.25-0.90). Moving to a farm as an adolescent (ages 11 to 20) vs. as an adult was associated with a greater risk of glioma. In our study sample, farm or rural residence and summary farm exposures were associated with decreased glioma risk. However, nonparticipation by never-farming eligible controls could have affected results. Comparisons of farm chemical exposures may clarify associations between farming and glioma that others have reported.
OBJECTIVE: To assess household practices that can affect neonatal health, from the perspective of caregivers and health workers; to identify signs in neonates leading either to recognition of illness or health-care seeking; and to ascertain the proportion of caregivers who recognize the individual items of the integrated management of neonatal and childhood illnesses (IMNCI) programme.

METHODS: The study was carried out in a rural community in Sarojininagar Block, Uttar Pradesh, India, using qualitative and quantitative research designs. Study participants were mothers, grandmothers, grandfathers, fathers or "nannies" (other female relatives) caring for infants younger than 6 months of age and recognized health-care providers serving the area. Focus group discussions (n = 7), key informant interviews (n = 35) and structured interviews (n = 210) were conducted with these participants. FINDINGS: Many household practices were observed which could adversely affect maternal and neonatal health. Among 200 caregivers, 70.5% reported home deliveries conducted by local untrained nurses or relatives, and most mothers initiated breastfeeding only on day 3. More than half of the caregivers recognized fever, irritability, weakness, abdominal distension/vomiting, slow breathing and diarrhoea as danger signs in neonates. Seventy-nine (39.5%) of the caregivers had seen a sick neonate in the family in the past 2 years, with 30.38% in whom illness manifested as continuous crying.
Health care was sought for 46 (23%) neonates. Traditional medicines were used for treatment of bulging fontanelle, chest in-drawing and rapid breathing.

CONCLUSION: Because there is no universal recognition of danger signs in neonates, and potentially harmful antenatal and birthing practices are followed, there is a need to give priority to implementing IMNCI, and possible incorporation of continuous crying as an additional danger sign.

PMID: 17128362 [PubMed - indexed for MEDLINE]


Community surveys and risk factor analysis of human alveolar and cystic echinococcosis in Ningxia Hui Autonomous Region, China.


Ningxia Medical College, Yinchuan, Ningxia Hui Autonomous Region, China.

OBJECTIVE: To determine the true community prevalence of human cystic (CE) and alveolar (AE) echinococcosis (hydatid disease) in a highly endemic region in Ningxia Hui, China, by detecting asymptomatic cases. METHODS: Using hospital records and "AE-risk" landscape patterns we selected study communities predicted to be at risk of human echinococcosis in Guyuan, Longde and Xiji counties. We conducted community surveys of 4773 individuals from 26 villages in 2002 and 2003 using questionnaire analysis, ultrasound examination and serology. FINDINGS: Ultrasound and serology showed a range of prevalences for AE (0-8.1%; mean 2%) and CE (0-7.4%; mean 1.6%), with the highest prevalence in Xiji (2% for CE; 2.5% for AE). There were significant differences in the prevalence of CE, AE and total echinococciosis between the three counties and villages (with multiple
degrees of freedom). While hospital records showed 96% of echinococcosis cases attributable to CE, our survey showed a higher prevalence of human AE (56%) compared to CE (44%). Questionnaire analysis revealed that key risk factors for infection were age and dog ownership for both CE and AE, and Hui ethnicity and being female for AE. Drinking well-water decreased the risk for both AE and CE.

CONCLUSION: Echinococcosis continues to be a severe public health problem in this part of China because of unhygienic practices/habits and poor knowledge among the communities regarding this disease.

Publication Types:
- Research Support, N.I.H., Extramural
- Research Support, Non-U.S. Gov't
- Research Support, U.S. Gov't, Non-P.H.S.

PMID: 17128341 [PubMed - indexed for MEDLINE]


Rates, timing and causes of neonatal deaths in rural India: implications for neonatal health programmes.

Baqui AH, Darmstadt GL, Williams EK, Kumar V, Kiran TU, Panwar D, Srivastava VK, Ahuja R, Black RE, Santosham M.

Department of International Health, Bloomberg School of Public Health, Johns Hopkins University, 615 North Wolfe Street, Baltimore, MD 21205, USA. abaqui@jhsph.edu

OBJECTIVE: To assess the rates, timing and causes of neonatal deaths and the burden of stillbirths in rural Uttar Pradesh, India. We discuss the implications of our findings for neonatal interventions. METHODS: We used verbal autopsy interviews to investigate 1048 neonatal deaths and stillbirths. FINDINGS: There were 430 stillbirths reported, comprising 41% of all deaths in the sample. Of the 618 live births, 32% deaths were on the day of birth, 50% occurred during the first 3 days of life and 71% were during the first week. The primary causes of death on the first day of life (i.e. day 0) were birth asphyxia or injury (31%) and preterm birth (26%). During days 1-6, the most frequent causes of
death were preterm birth (30%) and sepsis or pneumonia (25%). Half of all
deaths caused by sepsis or pneumonia occurred during the first week of life. The proportion of deaths attributed to sepsis or pneumonia increased to 45% and 36%
during days 7-13 and 14-27, respectively. CONCLUSION: Stillbirths and deaths on
the day of birth represent a large proportion of perinatal and neonatal deaths, highlighting an urgent need to improve coverage with skilled birth attendants and to ensure access to emergency obstetric care. Health interventions to improve essential neonatal care and care-seeking behavior are also needed, particularly for preterm neonates in the early postnatal period.

Publication Types:
Research Support, U.S. Gov't, Non-P.H.S.

PMID: 17128340 [PubMed - indexed for MEDLINE]


Comment in:

Report on the typhus epidemic in Upper Silesia. 1848.

Virchow RC.

Publication Types:
Biography
Classical Article
Historical Article

Personal Name as Subject:
Virchow RC

PMID: 17123938 [PubMed - indexed for MEDLINE]


The three networks framework to deal with public health emergencies in Guangxi, China.

Public Health College, Guangxi Medical University, Guangxi Zhuang Autonomous Region, China.

OBJECTIVE: To improve the detection and control of infectious diseases in Guangxi, China. SETTING/PARTICIPANTS: Guangxi province in southwest China has almost 50 million people, of whom approximately 30% reside in urban and 70% in rural areas. There are 12 minority nationality groups living in the region. INTERVENTION: A village doctor reports any infectious disease outbreak to the Reporting Network, which notifies the Service Network to organize the clinical response. This is supported by the Government Network that coordinates the response among the multiple layers of local governments. OUTCOMES: Since 2002 when the Three Networks system was first started, the time from incidence to report has been shortened on average from 30.6 to 7.6 days and the number of cases has increased from slightly less than 5000 cases/year (4965) to almost 10,000 cases/year (9873). Average mortality has decreased from 3.23% to 0.74%. The Three Networks system has been successful in controlling measles outbreaks; and during SARS, when 11 cases came to Guangxi from the neighbouring Guangdong province, there were only 11 additional new cases with no community spread and no spread to medical staff. CONCLUSION: The Three Networks system has played an important role in infectious disease prevention and control in Guangxi province, and may be applicable to other areas with a similar situation.

Publication Types:
Research Support, Non-U.S. Gov't

PMID: 17120880 [PubMed - indexed for MEDLINE]


Modelling geographic variations in West Nile virus.

Yiannakoulias NW, Schopflocher DP, Svenson LW.
BACKGROUND: This paper applies a method for modelling the spatial variation of West Nile virus (WNv) in humans using bird, environmental and human testing data. METHODS: We used data collected from 503 Alberta municipalities. In order to manage the effects of residual spatial autocorrelation, we used generalized linear mixed models (GLMM) to model the incidence of infection. RESULTS: There were 275 confirmed cases of WNv in the 2003 calendar year in Alberta. Our spatial model indicates that living in the grasslands natural region and levels of human testing are significant positive predictors of WNv; living in an urban area is a significant negative predictor. CONCLUSION: Infected bird data contribute little to our model. The variability of West Nile virus incidence in Alberta may be partly confounded by the variations in the rate of testing in different parts of the province. However, variation in infection is also associated with known environmental risk factors. Our findings are consistent with existing knowledge of WNv in North America.

PMID: 17120875 [PubMed - indexed for MEDLINE]


Schellenberg TL, Anderson ME, Drebot MA, Vooght MT, Findlater AR, Curry PS, Campbell CA, Osei WD.

Department of Public Health Services, Five Hills Health Region, Moose Jaw, SK.
tschell@fhhr.ca

BACKGROUND: The Five Hills Health Region of Saskatchewan reported the highest West Nile virus (WNV) case rates in the 2003 outbreak. A serologic and telephone survey was undertaken to assess the seroprevalence of the virus and the knowledge, attitudes and behaviours of the residents. METHODS: Respondents had to be at least 18 years of age, and residents of the Five Hills Health Region
between July 1st and September 15th, 2003. Blood samples of respondents were
tested at the National Microbiology Laboratory for flavivirus immunoglobulin
using a WNV IgG ELISA and plaque reduction neutralization test. Descriptive
analyses performed related to respondents’ demographics, knowledge,
attitudes, behaviours, and seropositivity. WNV infection risk was assessed using odds
ratio. RESULTS: There were 619 questionnaire respondents, of whom 501 donated a
blood sample. The seroprevalence of WNV in the Five Hills Health Region was
9.98% (95% CI 7.37-12.59%). Seropositivity of rural areas was 16.8% and urban
was 3.2%. Most (97%) of participants thought WNV was an important health
issue. Forty-eight percent of the participants used insect repellents containing DEET
most of the time. There was good knowledge regarding WNV transmission and
prevention of the spread of WNV. Rural compared to urban residents were six
times more likely to be positive for WNV (OR=6.13, 95% CI 2.82-13.34).
INTERPRETATION: This is the highest seroprevalence rate of West Nile virus
recorded in North America thus far. Many factors could have influenced this
outbreak, such as eco-region, early prolonged hot weather, level of mosquito
control programs, urban and rural community differences, and personal
protective
behaviours.

Publication Types:
Research Support, Non-U.S. Gov't

PMID: 17120874 [PubMed - indexed for MEDLINE]


School region socio-economic status and geographic locale is associated with
food behaviour of Ontario and Alberta adolescents.

Minaker LM, McCargar L, Lambraki I, Jessup L, Driezen P, Calengor K,
Hanning RM.

Health Behaviour Research Group, University of Waterloo, Waterloo, ON.

BACKGROUND: In an attempt to elucidate broader determinants of
adolescent
dietary intake and habits, food intakes and selected food behaviours of grades
9
and 10 students from Ontario and Alberta were examined according to school
region socio-economic status and urban/rural locale. METHODS: Using a stratified random sample framework, 53 high schools from 28 school boards were recruited (45 public and 8 private; 33 urban and 20 rural). Median family income for Canada Post's forward sortation area of the school was used to define school region SES. Public and private schools were compared as a proxy measure of SES.

A web-based survey of food intake and behaviours, including a 24-hour diet recall and food frequency questionnaire, was completed by 2,621 students in grades 9 and 10. Comparison of intakes and behaviours by school designation as urban/rural, public/private or regional SES (generalized linear model procedure) controlled for student gender and grade distribution and number of participants within schools. RESULTS: School region SES ranged from dollars 40,959 to dollars 85,922/year. Vegetable and fruit consumption (p < 0.001), fibre intake (p < 0.001) and frequency of breakfast consumption (p < 0.01) increased with increasing income, while added sugar intake decreased (p < 0.01). Private versus public school students had lower intakes of sweetened drinks (p < 0.01) and higher intakes of fibre (p=0.02). Rural students reported higher mean intakes of calcium (1106 vs. 995 mg/day, respectively, p = 0.03) and milk products (2.7 vs. 2.3 servings/day, p < 0.01) than urban students. CONCLUSION: Selected food behaviours of youth from Ontario and Alberta improve with increasing school SES and vary with rural/urban school locale. Identifying regional demographics may be useful in tailoring healthy eating programs to the specific school.

Publication Types:
  Comparative Study
  Research Support, Non-U.S. Gov't

PMID: 17120872 [PubMed - indexed for MEDLINE]


Obesity rates among rural Ontario schoolchildren.

Galloway T.

Health Sciences Program, University of Northern British Columbia, 3333 University Way, Prince George, BC, Canada. gallowt@unbc.ca
BACKGROUND: The majority of existing studies of obesity risk among Canadian children come from urban populations. The purpose of this study is to assess the prevalence of obesity in a sample of rural Ontario children. METHODS: Measures of height and weight were obtained for 504 children attending seven public elementary schools in Grey and Bruce Counties, a predominantly rural area of Southern Ontario. Body mass index (BMI, or weight/height2) scores were calculated and compared with reference data from the Centers for Disease Control. RESULTS: Rates of overweight and obesity were high in this sample, with 17.7% of children classified as overweight and 10.9% classified as obese. There was a significantly high prevalence of overweight for both boys (17.8%) and girls (17.5%) (Chi-square = 75.70, p < 0.001). However there was a significant gender difference in obesity prevalence: 15.0% of boys were obese, compared with 6.8% of girls (Mann-Whitney U = 29133.0, p > 0.05). CONCLUSION: Findings indicate that among rural children--particularly boys--risk of overweight and obesity are at least as high as in their urban Canadian counterparts. There appear to be fewer girls than boys at the extreme high end of the distribution of BMI, which may indicate differences in the growth environment of rural boys and girls.

Publication Types: Research Support, Non-U.S. Gov't
PMID: 17120871 [PubMed - indexed for MEDLINE]


Comment on:
Lancet. 2006 Sep 9;368(9539):954-61.

Chagas' disease in Mexico.

Attaran A.

Publication Types: Comment Letter
PMID: 17113420 [PubMed - indexed for MEDLINE]
BACKGROUND: Healthy families are vital prerequisites for a stable society and economic development of the community. The health status of families and communities is influenced by several socio-demographic variables such as educational status, marital pattern and gender relationships. The objective of this study is to examine the effect of certain socio-demographic variables on the health status of a rural community in Northern Nigeria. METHOD: A prospective survey over a six month period, which commenced in May 2005, was done in rural primary health care centre in Katcha local Government area of Niger state. All consecutive parents either male or female of children seeking care in the health center who gave consent to participate in the survey were recruited. A structured researcher administered questionnaire was used in sourcing data. Data was analyzed using Microsoft Excel version 2003. RESULTS: A total of 608 parents comprising 302 (49.67%) male and 306 (50.33%) females (M: F = 1:1.01) were surveyed. Of these 78.48% females were uneducated compared to only 41.83% males. While most males were gainfully employed, 20.86% of females were full time housewives. Polygamy was the predominant marital pattern. The findings indicate that women in the community were socially disadvantaged compared to males. CONCLUSION: There is a significant socio-economic gap which puts females at a disadvantage in the rural community surveyed. Bridging this Socio-economic gap between men and women in rural communities will help improve the health status in our rural communities.

PMID: 17111731 [PubMed - indexed for MEDLINE]
Quantifying behavioural interactions between humans and mosquitoes: evaluating the protective efficacy of insecticidal nets against malaria transmission in rural Tanzania.

Killeen GF, Kihonda J, Lyimo E, Oketch FR, Kotas ME, Mathenge E, Schellenberg JA, Lengeler C, Smith TA, Drakeley CJ.

Ifakara Health Research and Development Centre, Box 53, Ifakara, Morogoro, United Republic of Tanzania. gkilleen@ihrdc.or.tz

BACKGROUND: African malaria vectors bite predominantly indoors at night so sleeping under an Insecticide-Treated Net (ITN) can greatly reduce malaria risk. Behavioural adaptation by mosquitoes to increasing ITN coverage could allow vector mosquitoes to bite outside of peak sleeping hours and undermine efficacy of this key malaria prevention measure. METHODS: High coverage with largely untreated nets has been achieved in the Kilombero Valley, southern Tanzania through social marketing programmes. Direct surveys of nightly biting activity by An. gambiae Giles were conducted in the area before (1997) and after (2004) implementation of ITN promotion. A novel analytical model was applied to estimate the effective protection provided by an ITN, based on published experimental hut trials combined with questionnaire surveys of human sleeping behaviour and recorded mosquito biting patterns. RESULTS: An. gambiae was predominantly endophagic and nocturnal in both surveys: Approximately 90% and 80% of exposure occurred indoors and during peak sleeping hours, respectively. ITNs consistently conferred >70% protection against exposure to malaria transmission for users relative to non-users. CONCLUSION: As ITN coverage increases, behavioural adaptation by mosquitoes remains a future possibility. The approach described allows comparison of mosquito biting patterns and ITN efficacy at multiple study sites and times. Initial results indicate ITNs remain highly effective and should remain a top-priority intervention. Combined with recently developed transmission models, this approach allows rapid, informative and cost-effective preliminary comparison of diverse control strategies in terms of protection against exposure before more costly and intensive clinical trials.

Publication Types:
Predictors of nutritional adequacy in mother-toddler dyads from rural families with limited incomes.

Hoerr SL, Horodynski MA, Lee SY, Henry M.

Department of Food Science and Human Nutrition, Michigan State University, East Lansing, USA. hoerrs@msu.edu

OBJECTIVE: To predict the mean adequacy ratio (MAR) scores of mothers and toddlers from intakes of fruits, vegetables, and dairy group foods and being seated during mealtimes. DESIGN/SUBJECTS: This was a regression analysis of cross-sectional data of the diet quality and being seated during mealtimes of 100 rural mother-toddler dyads from limited-income families using two 24-hour dietary recalls. Children were 11 to 25 months of age and at or below 100% of the poverty index. MEASURES OF OUTCOME: Dietary quality for mothers and toddlers was assessed using a MAR score for eight different nutrients (vitamin A, vitamin C, vitamin D, folate, calcium, zinc, iron, and magnesium), and a score of 85 or above was considered nutritionally adequate. The main food groups of interest were servings from the fruits, vegetables, and dairy group foods. Mealtime sitting behavior was the percentage of times the toddler remained seated while eating. RESULTS: Servings of fruits, vegetables, and dairy foods predicted 0.62 of the variance in the mother's MAR score, whereas vegetable and dairy intakes along with being seated while eating indicated nutritional adequacy for toddlers. Mothers with low MAR scores were most likely to have toddlers with poor diets, although few toddlers had poor diet quality. CONCLUSIONS: Adequate intakes of dairy, vegetables, and whole fruits along with being seated while eating could be quick assessment tools to screen toddlers for nutritional risk. Mothers with poor diet quality were likely to have toddlers with poor diets; low intakes of fruits, vegetables, and dairy foods were markers for poor diet quality in mothers.
Comparative analysis of intestinal parasitic infections in slum, rural and urban populations in and around union Territory, Chandigarh.

Khurana S, Aggarwal A, Malla N.

Department of Parasitology, PGIMER, Chandigarh.

A study was conducted in and around the union Territory, Chandigarh, India to estimate the prevalence of intestinal parasitic infections in different population groups. The stool samples from a total of 600 subjects selected by cluster sampling technique were examined by direct microscopy. The prevalence of intestinal parasitic infections was found to be 14.6% with highest prevalence of 19% from the slum area. Children were the most commonly affected group (18%) with those from slums showing the highest prevalence (24.6%). The most common parasite was Giardia (5.5%) followed by H. nana and Ascaris (2.8% and 2.7% respectively).

Publication Types:
Comparative Study
Multicenter Study
Research Support, Non-U.S. Gov't

Hypogonadism in male Leprosy patients--a study from rural Uttar pradesh.

Aggrawal K, Madhu SV, Aggrawal K, Kannan AT.

Department of Community Medicine, University College of Medical Sciences, Dilshad Garden, Delhi-110095.

Hypogonadism in male patients with Leprosy is common and may identify patients with future risk for bone loss and osteoporosis. In the present study, we evaluated gonadal function in 71 male patients with Leprosy both clinically and
by estimation of serum testosterone levels. The patients belonged to selected rural areas of Uttar Pradesh, with majority aged less than 50 yrs (74.6%), Hindus (66.7%), illiterate (60.9%), and of low socioeconomic status (58% with per capita income < Rs.500 per month). Most patients had multibacillary Leprosy (83.1%), duration less than 2 years (75.4%) and had received antileprosy drugs for less than a year (95.6%). Seven patients (9.9%) had clinical features of hypogonadism such as gynaecomastia, decreased sexual hair and infertility. Serum testosterone levels, estimated in 31 of the patients, revealed low values in 25.8% (8/31) patients (Mean 4.65+/−3.37 ng/ml). Age, duration of Leprosy and socioeconomic status but not type of Leprosy or treatment duration affected hypogonadism significantly. The results of the present study indicate a high frequency of hypogonadism among rural male Leprosy patients that warrants routine screening to identify patients at risk for osteoporosis and possible prevention with testosterone replacement therapy.

PMID: 17080706 [PubMed - indexed for MEDLINE]


Comment on:

Rudolf Carl Virchow: medical scientist, social reformer, role model.

Brown TM, Fee E.

Department of History, University of Rochester, Rochester, NY 14627, USA.
thodore_brown@urmc.rochester.edu

Publication Types:
  Biography
  Comment
  Historical Article

Personal Name as Subject:
  Virchow RC

PMID: 17077410 [PubMed - indexed for MEDLINE]


The persistence of American Indian health disparities.
Disparities in health status between American Indians and other groups in the United States have persisted throughout the 500 years since Europeans arrived in the Americas. Colonists, traders, missionaries, soldiers, physicians, and government officials have struggled to explain these disparities, invoking a wide range of possible causes. American Indians joined these debates, often suggesting different explanations. Europeans and Americans also struggled to respond to the disparities, sometimes working to relieve them, sometimes taking advantage of the ill health of American Indians. Economic and political interests have always affected both explanations of health disparities and responses to them, influencing which explanations were emphasized and which interventions were pursued. Tensions also appear in ongoing debates about the contributions of genetic and socioeconomic forces to the pervasive health disparities. Understanding how these economic and political forces have operated historically can explain both the persistence of the health disparities and the controversies that surround them.

Publication Types:
   Historical Article
   Research Support, N.I.H., Extramural
   Research Support, Non-U.S. Gov't

PMID: 17077399 [PubMed - indexed for MEDLINE]


Design of a mental health promotion program for vulnerable African American youth.

Shelton D, Smith J, Purnell-Greene M.

University of Connecticut School of Nursing, Storrs, CT, USA.

The purpose of this study was to develop a mental health promotion program for vulnerable middle school-age African American youths to reduce the risk of first-time involvement with the juvenile justice system. A review of the
literature, pilot testing of instruments, and community collaboration led to the development of the program, which was funded through the Office of Rural Health.

Publication Types:
  Evaluation Studies
  Research Support, U.S. Gov't, P.H.S.

PMID: 17073117 [PubMed - indexed for MEDLINE]


Severe anemia in pregnancy in rural Ghana: a case-control study of causes and management.

Geelhoed D, Agadzi F, Visser L, Ablordeppey E, Asare K, O'Rourke P, van Leeuwen JS, van Roosmalen J.

Holy Family Hospital, Berekum and Mathias Hospital, Yeji, Ghana.

BACKGROUND: Various factors contribute to severe anemia in pregnancy in low-income countries. This study assesses which of these are of importance in rural Ghana, and evaluates management. METHODS: Prospective case-control study in two (sub)district hospitals in rural Ghana among 175 severely anemic pregnant women (Hb < 8.0 g/dl), receiving a comprehensive treatment package; and 152 non-anemic pregnant women (Hb > or = 10.9 g/dl), giving birth at the study hospitals, matched for age and parity. Evaluated characteristics were need for treatment for urinary tract infection and schistosomiasis; sickle cell and HIV status; antenatal care characteristics; and Hb increase after treatment. Statistical analysis included Chi square test and general linear modeling.

RESULTS: Associated with severe anemia were multiple pregnancy (OR 8.9; 95%CI 1.1-71.0), urinary tract infection (OR 6.2; 95%CI 3.5-11.0), residence outside study (sub)district (OR 2.7; 95%CI 1.7-4.3), body mass index < 20.0 (OR 2.0; 95%CI 1.2-3.4), and less than 4 antenatal clinic visits (OR 1.9; 95%CI 1.2-3.0). No association was found with sickle cell or HIV status, schistosomiasis treatment, blood loss in pregnancy, or gestational age at antenatal care registration. After treatment, mean Hb in the severe anemia group increased by 3.2 g/dl, significantly more than in the control group (0.2 g/dl; p<0.001).
Modeling showed that the number of antenatal visits and the lowest Hb together explained approximately 25% of the variability in Hb prior to childbirth among women with severe anemia. CONCLUSIONS: Treatable causes contribute considerably to severe anemia in pregnancy in low-income countries. Even with limited resources, a substantial increase of Hb can be achieved.

PMID: 17068674 [PubMed - indexed for MEDLINE]


Comment in:

Rural doctors given fresh hope.

Bateman C.

Health and Medical Publishing Group, South Africa.

PMID: 17068643 [PubMed - indexed for MEDLINE]


Vulnerable populations with diabetes mellitus.

Garcia AA, Benavides-Vaello S.

School of Nursing, The University of Texas at Austin, TX 78701-1499, USA. agarcia@mail.nur.utexas.edu

This review of the literature on vulnerable populations with diabetes identifies trends, summarizes major findings, and recommends strategies to fill gaps in the state of the science. For the purposes of this article "vulnerable populations" refers to members of diverse racial and ethnic groups, people of low-income, and those who live in rural and medically underserved areas.

Publication Types:
    Review

PMID: 17059977 [PubMed - indexed for MEDLINE]

Impact of repeated mass treatment on human Oesophagostomum and hookworm infections in northern Ghana.


Department of Parasitology, Leiden University Medical Centre, Leiden, The Netherlands.

Oesophagostomum bifurcum is a common parasite of humans causing disease in parts of northern Ghana and northern Togo. The impact of repeated mass treatment with albendazole on infection with O. bifurcum and hookworm is analysed and the results compared with those in a control area where no treatment was given. At baseline, O. bifurcum and hookworm prevalences were 53.0% and 86.9%, respectively (n=1011). After 12 months, following two rounds of albendazole treatment, prevalences decreased significantly to 5.4% for O. bifurcum and 36.8% for hookworm (n=535). Twenty-four months after the baseline survey and following a total of four rounds of treatment, prevalences were further reduced to 0.8% and 23.4% for O. bifurcum and hookworm, respectively (n=478). Overall, there was a significant decrease in the larval counts, measured as geometric mean larval count per 4 g of stool of O. bifurcum from 3.0 to 0.1 and of hookworm from 47.2 to 1.8. The fourth mass treatment was carried out in April 2003 by the Lymphatic Filariasis Elimination Programme. Overall, compliance to treatment varied from 70% to 80%. In the control area, Oesophagostomum prevalence increased from 18.5% to 37.0% and the intensity from 0.4 to 1.4. For hookworm, both prevalence (86.1-91.3%) and intensity (54.8-74.3) increased but not to a significant level.

The prospects of eliminating human oesophagostomiasis from the intervention area, while simultaneously achieving an important reduction of hookworm prevalences by albendazole mass treatment, are discussed.
Annual mass treatment with albendazole might eliminate human oesophagostomiasis from the endemic focus in northern Ghana.


Department of Parasitology, Leiden, Leiden University Medical Centre, The Netherlands.

As a follow-up to the study by Ziem et al., in this issue, efforts to control human oesophagostomiasis and hookworm infections in northern Ghana were pursued, and the results evaluated in collaboration with the Lymphatic Filariasis Elimination Programme. This phase of evaluation of the impact of mass treatment was no longer limited to a small-scale research setting: it was done both in the context of an operationally viable national control programme and as a continuation of the Oesophagostomum Intervention Research Project (OIRP). The methods of evaluation included classical stool examination with Kato thick smears, stool culture and ultrasound examination of the colon wall. The results showed that yearly population-based albendazole-ivermectin treatment in 11 villages scattered over north-eastern Ghana, with a treatment coverage of 70-75%, resulted in a reduction of Oesophagostomum prevalence from about 20% pre-intervention to less than 1% after 2 years of mass treatment. Simultaneously, hookworm prevalence went down from 70% to approximately 15%. The data, however, cannot be readily compared with those of Ziem et al. because of the relatively crude diagnostic (single stool cultures) screening system that had to be used for the evaluation of the large-scale control programme. In the research area of the OIRP, interruption of mass treatment resulted in a rising hookworm prevalence. The Oesophagostomum prevalence, on the other hand, continued to go down. Transmission of human oesophagostomiasis appears interruptible and small numbers of persistent cases of Oesophagostomum infection were shown insufficient to serve as a nucleus of renewed spread of the infection. The data suggest that both the infection with and the pathology due to human oesophagostomiasis can be eliminated and that elimination is likely to be achieved through operationally feasible albendazole-ivermectin treatment as
used by the Global Alliance for the Elimination of Lymphatic Filariasis.

PMID: 17054757 [PubMed - indexed for MEDLINE]


Centre de Salut Internacional, Hospital Clinic IDIBAPS, Universitat de Barcelona, Barcelona, Spain. lquinto@clinic.ub.es

INTRODUCTION: The reference intervals of haematological and biochemical indices currently used in Africa are derived from data collected from populations living in industrialized countries. Few studies have been performed in Africa questioning the validity of these values when applied to local African populations. OBJECTIVE: To provide reference intervals of haematological [haemoglobin (Hb), white blood cells (WBC), haematocrit (Htc) and platelets] and biochemical indices (ALT, creatinine and bilirubin) for children aged 1-4 from a rural area of southern Mozambique. METHODS: Reference intervals were developed using the 2.5 and 97.5 centiles. Partition tests were performed to evaluate age and gender differences. Quantile regression models were estimated for those variables in which age partition was recommended. Deviances from linearity in the estimated models were evaluated using fractional polynomials of first or second degree. Agreement to classify normality, using the estimated reference intervals or values in use in a western paediatric hospital, was made using the kappa statistic. RESULTS: Reference intervals for Hb, WBC, Htc, platelets, ALT and creatinine show significant differences by age. Gender differences were observed for creatinine values, while for bilirubin there were no significant differences for age or gender. Estimated Hb and Htc reference intervals in African children were lower than the accepted western ones, while ALT values were higher in the former. Agreement between normal classification, using the estimated intervals or the western values, was from slight to fair.

CONCLUSIONS: Reference intervals of haematological and biochemical indices based on results from western individuals of the same age are not in agreement with the estimated
values for African children. These observed values should not be used as a rule
to define normality, but are the ones usually found in this population where
anaemia, malaria and high mortality rates are also common.

PMID: 17054755 [PubMed - indexed for MEDLINE]


Using knowledge, attitudes and practice (KAP) surveys on lymphatic filariasis to
prepare a health promotion campaign for mass drug administration in Alor District, Indonesia.

Krentel A, Fischer P, Manoempil P, Supali T, Servais G, Ruckert P.

Deutsche Gesellschaft fur Technische Zusammenarbeit (GTZ) SISKES Project,
Kupang, Indonesia. alison.krentel@lshtm.ac.uk

We report the results of two surveys of people’s knowledge, attitudes and practices (KAP) regarding lymphatic filariasis (LF) in Alor District, eastern Indonesia. The results of the surveys were used to prepare and evaluate the social mobilization component of a pilot mass drug administration (MDA) in five villages. In the study area, the filarial parasites Brugia timori and Wuchereria bancrofti are highly endemic. Frequent and severe adverse reactions after MDA may occur especially in areas endemic for B. timori and therefore, a special communication strategy was designed to inform and to educate communities about LF and its control. The first KAP survey was conducted as a baseline pre-MDA with diethylcarbamazine and albendazole and the second as a post-intervention evaluation in order to obtain information on the impact of the communication campaign. Before the information campaign and the subsequent MDA, 54% of the study population had heard of one of the three main terms for LF, whereas after health education and MDA, 89% had heard of at least one of the three terms. Similarly, pre-MDA, 21% reported having had previously taken the treatment for filariasis, while post-MDA, 88% reported having taken the treatment during the pilot treatment period. The historical fears and traumatic experiences associated with past LF treatment campaigns in Indonesia were averted since both
the communication campaign and the MDA were designed appropriately for and together with the community. As a result, compliance was sufficient in the first round to successfully begin the elimination process.

Publication Types:
Research Support, Non-U.S. Gov't

PMID: 17054754 [PubMed - indexed for MEDLINE]


Suppression of exposure to malaria vectors by an order of magnitude using microbial larvicides in rural Kenya.

Fillinger U, Lindsay SW.

School of Biological and Biomedical Sciences, Durham University, Durham, UK.
ulrike.fillinger@durham.ac.uk

OBJECTIVE: To determine the contribution larviciding could make to reduce the burden of malaria, by conducting a trial of microbial larvicides in a 4.5 km2 area in and around a large village in rural western Kenya. METHOD: The abundance of immature and adult mosquitoes was monitored for 12 months under baseline conditions. Then microbial larval control was implemented for 28 months. After the intervention, the abundance of immature and adult mosquitoes was monitored for a further 12 months. RESULTS: Of the 419 mosquito larval habitats identified, 336 (80%) originated from human activities. Application of Bacillus thuringiensis var. israelensis and Bacillus sphaericus larvicides reduced the proportion of aquatic habitats containing Anopheles larvae from 51% during non-intervention periods to 7% during the intervention. The occurrence of late instar Anopheles in habitats was reduced from 39% and 33% in pre-intervention and post-intervention periods to 0.6% during intervention. Overall, larviciding reduced Anopheles larval density by 95% and human exposure to bites from adults by 92%. The estimated cost of providing this protection to the human population in the study area was less than US$ 0.90/person/year. CONCLUSION: Appropriately
applied microbial larvicides can substantially and cost-effectively reduce human exposure to malaria in rural sub-Saharan Africa.

Publication Types:
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, Non-P.H.S.

PMID: 17054742 [PubMed - indexed for MEDLINE]


A further exploration of patients with IBS in rural Crete.

Vasilopoulos T, Efthymiou C, Zagora E.

Publication Types:
Letter

PMID: 17054400 [PubMed - indexed for MEDLINE]


Alcohol and other drug disorders, comorbidty and violence in rural African American women.

Boyd MB, Mackey MC, Phillips KD, Tavakoli A.

College of Nursing, University of South Carolina, Columbia, South Carolina 29208, USA. mary.boyd@sc.edu

African-American women report less alcohol and drug (AOD) use than Caucasian women. However, African-Americans disproportionately experience negative health and social consequences of AOD use. This is especially true for rural women, many of whom live in poverty and have debilitating co-morbid psychiatric disorders that go undiagnosed and treated. It is imperative that health professionals be knowledgeable about AOD use, co-morbid disorders, and how to screen for them. This manuscript is focused on examining rural African American women (n = 142) with and without AOD disorders on the following variables: drugs of abuse, Axis I psychiatric disorder, and adult and childhood victimization.
Hospitalization of Western Australian children for oral health related conditions: a 5-8 year follow-up.

Kruger E, Dyson K, Tennant M.

The Centre for Rural and Remote Oral Health, The University of Western Australia. ekruger@crroh.uwa.edu.au

BACKGROUND: This study investigated in-patient oral health care provision for children under 18 years of age in Western Australia. METHODS: Hospitalizations of children for oral health conditions over a four-year period were analysed using data obtained from the Western Australian Hospital Morbidity Data System (HMDS). This study followed a previously published study examining similar data for 1995. RESULTS: Between 1999-2000 and 2002-2003, a total of 26 497 episodes of care were attributed to oral health conditions among children aged 0-17 years. The cost of this care exceeded $40 million. Embedded and impacted teeth accounted for 33.2 per cent of oral health episodes, dental caries 28.3 per cent, pulp and periapical tissue conditions 7.1 per cent and dentofacial anomalies 6.1 per cent. With the exception of the infant age group (0-1 years), non-Aboriginal children had higher admission rates than Aboriginal children. In the 13-17 year age group a non-Aboriginal child was 31 times more likely to be admitted to hospital for an oral condition than an Aboriginal child. CONCLUSIONS: This study confirms the impact of oral health related conditions among children in Western Australia. It is also clear that there are differences between age and population groups in terms of access to in-patient dental services and exposure to risk factors for specific oral conditions.

PMID: 17037889 [PubMed - indexed for MEDLINE]


Meriones libycus is the main reservoir of zoonotic cutaneous leishmaniasis in
A study was made in rural regions around Neiriz city, Fars province in the south of the Islamic Republic of Iran during 2002-03 to further investigate a new focus of zoonotic cutaneous leishmaniasis. Meriones libycus was the dominant rodent (100% of 65 rodents collected) and 4.6% were naturally infected with the amastigote form of Leishmania spp. Promasigotes were identified as L. major. This confirms M. libycus as the main reservoir host of zoonotic cutaneous leishmaniasis in southern parts of the country.

Publication Types:
Research Support, Non-U.S. Gov't

PMID: 17037718 [PubMed - indexed for MEDLINE]


Epidemiology of deaths from injuries in the Islamic Republic of Iran.

Akbari ME, Naghavi M, Soori H.

Shaheed Beheshti University of Medical Sciences, Tehran, Islamic Republic of Iran.

A 1-year study of fatal injuries was carried out in 10 provinces of the Islamic Republic of Iran based on a population of 16 740 637 in 2000-01. All reported deaths were compared and validated with other sources of death registration. Out of 66 846 deaths, 9733 (58/100 000) resulted from injuries. Overall, 14.9% of all deaths with 26.9% of years of lost life were from injuries. Most fatal injuries were unintentional (48.0/100 000). Deaths from traffic injuries (30.0/100 000) are the highest in the world. Of 1693 intentional fatal injuries, 61% were due to suicide, at a mean age of 29 years.

PMID: 17037707 [PubMed - indexed for MEDLINE]


Seroepidemiology of selected zoonotic infections in Basra region of Iraq.
A community-based seroepidemiological study was made of 4 common zoonotic infections (brucellosis, hydatidosis, toxoplasmosis and visceral leishmaniasis) in 3 areas (rural, urban and suburban semirural) in Basra governorate, southern Iraq. The prevalence of brucellosis was higher in the suburban semirural area (29.3%) than the rural and urban areas. The prevalence of hydatidosis (19.0%-35.5%) and toxoplasmosis (41.1%-52.1%) were relatively high in all 3 areas. With respect to visceral leishmaniasis, low rates of infection were reported (0.2%-1.9%). The study shows in general that the suburban semirural area is at highest risk of zoonotic infections compared with other areas. The results could form a rational basis for the planning of an integrated comprehensive approach for control of zoonotic infections in the areas surveyed.

PMID: 17037228 [PubMed - indexed for MEDLINE]

Knowledge, attitudes and public health response towards plague in Petauke, Zambia.

Ngulube TJ, Mwanza K, Njobvu CA, Muula AS.

Centre for Health, Science and Social Research (CHESSORE), The University of Zambia.

In 2001, two plague outbreaks were reported in Zambia, one of which occurred in Petauke, Eastern Province, resulting in high morbidity and mortality. Of the community respondents, 43.4% did not know the aetiology of plague. Although rats and fleas were frequently mentioned, many respondents did not know how these were related to plague. Local belief that the plague outbreak was the result of witchcraft was prevalent. Use of rodenticides was not preferred as these were reports of them being used for poisoning people. The public health response was initially slow by both the community and also the formal health sector. Once the
diagnosis of plague was made, fears of witchcraft dispelled and collaboration not only between the formal health sector and the community, but also between Zambian health workers and their Mozambican counterparts developed, and it was possible to control the outbreak.

Publication Types:
  Research Support, Non-U.S. Gov't

PMID: 17034698 [PubMed - indexed for MEDLINE]


Midwife seeks to work for RIPI.

Shiprack J.

Publication Types:
  Letter

PMID: 17031902 [PubMed - indexed for MEDLINE]


Factors influencing the care needs and demands of rural outpatients in Shaanxi, China.


Department of Health Statistics, Faculty of Preventive Medicine, China.

PMID: 17027880 [PubMed - indexed for MEDLINE]


Tinea capitis among rural school children of the district of Magude, in Maputo province, Mozambique.

Sidat MM, Correia D, Buene TP.

Department of Community Health, Faculty of Medicine, University Eduardo Mondlane, Maputo, Mozambique. mmsidat@yahoo.com.br

The study was carried out in two rural primary schools of the District of
Magude, the largest district of Maputo Province in 2001. The prevalence of tinea capitis in each school was 11.6% (49/422) and 6.8% (18/263) and affected predominantly male children. The most common dermatophytes isolated from both schools were Microsporum audouinii. However, Trichophyton mentagrophytes was also found to be an important causal agent of tinea capitis in the District of Magude. Although the prevalence of tinea capitis found in our study is relatively high compared to previous cross-sectional studies carried out in Mozambique, it is still closely related to the prevalence rates reported for African countries. Tinea capitis continues to be an important public health issue in Mozambique, particularly in primary school setting.

Publication Types:
Research Support, Non-U.S. Gov't

PMID: 17022765 [PubMed - indexed for MEDLINE]


Trends in rural and urban differentials in incidence rates for ruptured appendicitis under the National Health Insurance in Taiwan.

Huang N, Yip W, Chang HJ, Chou YJ.

Institute of Public Health, National Yang Ming University, 155 Ni-Long Street, Taipei 112, Taiwan, ROC.

OBJECTIVES: Rural-urban disparities in health remain a major focus of concern. This population-based study examined the performance of Taiwan's universal healthcare system in reducing rural-urban disparities in health, through better accessibility. Changes in the rates of ruptured appendicitis were compared between residents of remote and non-remote areas in Taiwan, under the National Health Insurance (NHI) programme. METHODS: We identified all 128,930 patients undergoing appendectomy in Taiwan between 1996 and 2001. The NHI inpatient files, enrolment files, major disease files, hospital registry and the household registry were linked to provide comprehensive individual and hospital information. Probit regression analyses were used to obtain adjusted estimates.

RESULTS: During the first 3 years, although the differences between the remote
and non-remote areas were apparent, they were seen to be narrowing. This downward trend continued, and, since 1999, few discernible differences have been observed. After adjusting for individual and hospital characteristics, over time, the ruptured appendix rate among remote area residents was seen to be decreasing significantly faster (1.1%) than among non-remote area residents. More specifically, the children showed a substantially steeper narrowing trend (3.3%) in rural-urban disparities, than did adults. CONCLUSIONS: Our findings have shown a significant narrowing of health disparities between remote and non-remote populations, resulting from free access to care and more healthcare provision in remote areas under the NHI programme; particular success has been observed in rural children. Although certain disparities still exist, Taiwan's universal healthcare system has effectively reduced rural-urban disparities in access to care and in ultimate health outcomes.

Publication Types:
  Comparative Study
  Evaluation Studies
  Research Support, Non-U.S. Gov't

PMID: 17011602 [PubMed - indexed for MEDLINE]


[Constitutionum epidemicarum mutinensium annorum quinque. Edition Secunda. 1714]

[Article in Italian, Latin]

Ramazzini B.

Publication Types:
  Biography
  Classical Article
  Historical Article

Personal Name as Subject:
  Ramazzini B

PMID: 16983981 [PubMed - indexed for MEDLINE]

51: J Occup Environ Med. 2006 Sep;48(9):959-68.

Fall-related injuries among agricultural household members: Regional Rural
Injury Study II (RRIS-II).

Paulson EH, Gerberich SG, Alexander BH, Ryan A, Renier CM, Zhang X, French LR, Masten AS, Carlson KF.

Regional Injury Prevention Research Center, Center for Violence Prevention and Control, Occupational Injury Prevention Research Training Program, University of Minnesota, Minneapolis, Minnesota 55455, USA.

OBJECTIVE: The objective of this study was to identify the magnitude and consequences of and potential risk factors for fall-related injuries among agricultural operation households. METHODS: Demographic, injury, and exposure data were collected through 1999 from 3765 households in a five-state region. A causal model facilitated survey design, data analyses, and interpretation of results; directed acyclic graphs guided multivariate modeling. RESULTS: The 16,538 participants experienced 766 fall-related injury events (48.3 per 1000 persons). Consequences included lost agricultural and other work time. Increased risks involved residence in states other than Minnesota, male gender, and injury history. Decreased risks were among those less than 35 years of age and those who worked 40 hours or less per week. CONCLUSIONS: Fall-related injury is a major problem for the agricultural population. This effort serves as a basis for further in-depth research.

Publication Types:
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.

PMID: 16966964 [PubMed - indexed for MEDLINE]


Does Dixon's Integrative Environmental Health Model inform an understanding of rural parents' perceptions of local environmental health risks?

Harnish KE, Butterfield P, Hill WG.
A qualitative study of parents' perceptions of local environmental health risks was conducted to assess the fit between concepts from Dixon’s Integrative Environmental Health Model (DIEH model) and field-generated data. This research was part of a prospective study addressing environmental exposures of rural low-income children. Home visit data from 11 parents were analyzed (1) thematically and (2) according to DIEH concepts. These complementary analyses allowed the researchers to examine perceptions that were congruent with or diverged from the DIEH model. Findings revealed that participants were concerned about children's exposure to pathogenic molds and cigarette smoke and felt uninformed about risks and prevention strategies. Barriers to preventive actions included families' lack of time and a disinterest in brochures. Participants reported being "stuck" in substandard housing by poverty and family demands. They expressed concern about risks, but were unsure "what to worry about." Results provided the researchers with confidence that the DIEH model aligned with participants' cognitive constructions of risk. As a result, the DIEH model was incorporated into the conceptualization for the clinical trial phase of the study. This type of check between a theoretical approach and field data can be a helpful intermediate step for researchers involved in multiyear studies.

Publication Types:
  Research Support, N.I.H., Extramural

PMID: 16961565 [PubMed - indexed for MEDLINE]


Noncommunicable diseases and injuries in Latin America and the Caribbean: time for action.

Perel P, Casas JP, Ortiz Z, Miranda JJ.

Department of Epidemiology and Population Health, London School of Hygiene and Tropical Medicine, London, United Kingdom. pablo.perel@lshtm.ac.uk

Publication Types:
  Review
The effect of vitamin E on common cold incidence is modified by age, smoking and residential neighborhood.

Hemila H, Virtamo J, Albanes D, Kaprio J.

Department of Public Health, POB 41, University of Helsinki, Helsinki, FIN-00014, Finland. harri.hemila@helsinki.fi

BACKGROUND: We have previously found a 28% reduction in common cold incidence with 50 mg/day vitamin E supplementation in a subgroup of the Alpha-Tocopherol Beta-Carotene Cancer Prevention (ATBC) Study cohort: older city-dwelling men (> or =65 years) who smoked only 5-14 cigarettes/day. OBJECTIVE: To carry out more detailed analyses to explore the modification of vitamin E effect by age, smoking, and residential neighborhood. METHODS: We examined the effect of vitamin E on common cold risk in subjects consisting of the placebo and vitamin E arms (n = 14,573) of the ATBC Study, which recruited males aged 50-69 years who smoked > or =5 cigarettes/day at the baseline. The ATBC Study was conducted in southwestern Finland in 1985-1993; the active follow-up lasted for 4.7 years (mean). We modeled common cold risk as a function of age-at-follow-up in the vitamin E arm compared with the placebo arm using linear splines in Poisson regression. RESULTS: In participants of 72 years or older at follow-up, the effect of vitamin E diverged. Among those smoking 5-14 cigarettes per day at baseline and living in cities, vitamin E reduced common cold risk (RR = 0.54; 95% CI 0.37-0.80), whereas among those smoking more and living away from cities, vitamin E increased common cold risk (RR = 1.58; 1.23-2.01). CONCLUSIONS: Vitamin E may cause beneficial or harmful effects on health depending on various modifying factors. Accordingly, caution should be maintained in public health recommendations on vitamin E supplementation until its effects are better understood.
Psychometric properties and the prevalence, intensity and causes of oral impacts on daily performance (OIDP) in a population of older Tanzanians.

Kida IA, Astrom AN, Strand GV, Masalu JR, Tsakos G.

Centre for international health, UoB, Bergen, Norway.
irene.kida@student.uib.no

BACKGROUND: The objective was to study whether a Kiswahili version of the OIDP (Oral Impacts on Daily Performance) inventory was valid and reliable for use in a population of older adults in urban and rural areas of Tanzania; and to assess the area specific prevalence, intensity and perceived causes of OIDP.

METHOD: A cross-sectional survey was conducted in Pwani region and in Dar es Salaam in 2004/2005. A two-stage stratified cluster sample design was utilized. Information became available for 511 urban and 520 rural subjects (mean age 62.9 years) who were interviewed and participated in a full mouth clinical examination in their own homes.

RESULTS: The Kiswahili version of the weighted OIDP inventory preserved the overall concept of the original English version. Cronbach’s alpha was 0.83 and 0.90 in urban and rural areas, respectively, and the OIDP inventory varied systematically in the expected direction with self-reported oral health measures. The respective prevalence of oral impacts was 51.2% and 62.1% in urban and rural areas. Problems with eating was the performance reported most frequently (42.5% in urban, 55.1% in rural) followed by cleaning teeth (18.2% in urban, 30.6% in rural). More than half of the urban and rural residents with impacts had very little, little and moderate impact intensity. The most frequently reported causes of impacts were toothache and loose teeth.

CONCLUSION: The Kiswahili OIDP inventory had acceptable
psychometric properties among non-institutionalized adults 50 years and above in Tanzania. The impacts affecting their performances were relatively common but not very severe.

Publication Types:
- Research Support, Non-U.S. Gov't
- Validation Studies

PMID: 16934161 [PubMed - indexed for MEDLINE]


[First serological evidence of Hantavirus infection in rodents in Colombia]

[Article in Spanish]


Instituto de Investigaciones Biologicas del Tropico, Facultad de Medicina Veterinaria y Zootecnica, Universidad de Cordoba, Columbia.
Aderlaing@yahoo.com

OBJECTIVE: Determining Hantavirus infection prevalence in rodents in the Cordoba department, Colombia. METHODS: Rodents were captured using Sherman live-capture traps (8 x 9 x 23 cm; Sherman Traps, Inc., Tallahassee, FL) in peridomestic areas of Cordoba. Hantavirus IgG antibodies were detected by ELISA using Sin Nombre virus (SNV) recombinant nucleocapsid antigen (CDC, Atlanta, Georgia, USA). RESULTS: 336 rodents were captured in 11 townships in the Cordoba department (Murinae: 249; Sigmodontinae: 68; Heteromyidae: 17; Echimyidae: 2; 8.5% overall trap success) during 79 nights of trapping between January 2003 and November 2004. Hantavirus antibody seroprevalence was 2.1% (7 out of 336 captures). Prevalence by genus varied between 5.9% (1 out of 17 Heteromys) to 50% (1 out of 2 Proechimys). CONCLUSIONS: SNV-reactive antibody prevalence in rodents in Cordoba, Colombia, indicated that at least one hantavirus is endemic in rodents in northern Colombia and is frequently transmitted to rural
residents.

Publication Types:
   English Abstract
   Research Support, Non-U.S. Gov't

PMID: 16925117 [PubMed - indexed for MEDLINE]

57: Rocz Panstw Zakl Hig. 2006;57(1):49-56.

[Nitrogen compounds in the well water of Sokolow Podlaski district]

[Article in Polish]

Raczuk J.


In the year 2002 the quality of well waters was monitored in the area of Sokolow Podlaski district. Water samples collected four times per year from twenty once dug and drilled wells were examined for: NO3-, NO2-, NH4+, PO4(3-), Cl-, pH, total hardness and electrolytic conductivity. These studies showed that 58% out of all the analyzed water wells did not meet the requirements of standards related to nitrogen compounds content. During the whole period of the studies only 2 wells among 21 investigated met all the required standards as far as the examined parameters. These were the drilled wells of relevant localization and well enough isolated from all the sources of pollution.

Publication Types:
   English Abstract

PMID: 16900863 [PubMed - indexed for MEDLINE]


Constructed wetlands and waste stabilization ponds for small rural communities in the United Kingdom: a comparison of land area requirements, performance and costs.
Land area requirements for secondary subsurface horizontal-flow constructed wetlands (CW) and primary and secondary facultative ponds with either unaerated or aerated rock filters were determined for three levels of effluent quality: that specified in the Urban Waste Water Treatment Directive (UWWTD) (< or = 25 mg filtered BOD l(-1) and < or = 150 mg SS l(-1) for waste stabilization ponds (WSP) effluents, and < or = 25 mg unfiltered BOD l(-1) for CW effluents (mean values); and two common requirements of the Environment Agency: < or = 40 mg BOD l(-1) and < or = 60 mg SS l(-1), and < or = 10 mg BOD l(-1), < or = 15 mg SS l(-1) and < or = 5 mg ammonia-N l(-1) (95-percentile values). A secondary CW requires 60 percent more land than a secondary facultative pond to produce an UWWTD-quality effluent, 38 percent more land than a secondary facultative pond and an unaerated rock filter to produce a 40/60 effluent and, were it to be used to produce a 10/15/5 effluent, it would require approximately 480 percent more land than a secondary facultative pond and an aerated rock filter. Its estimated 2005 cost is pound 1100-2600 p.e.(-1), whereas that of a primary facultative pond and rock filter is approximately pound 400 p.e.(-1). On the basis of land area requirements, performance and cost, facultative ponds and unaerated or aerated rock filters are to be preferred to secondary subsurface horizontal-flow constructed wetlands.
BACKGROUND: The purpose of this study is to evaluate the most important sociodemographic factors on smoking status of high school students using a broad randomised epidemiological survey. METHODS: Using in-class, self-administered questionnaire about their sociodemographic variables and smoking behaviour, a representative sample of total 3304 students of preparatory, 9th, 10th, and 11th grades, from 22 randomly selected schools of Mersin, were evaluated and discriminative factors have been determined using appropriate statistics. In addition to binary logistic regression analysis, the study evaluated combined effects of these factors using classification and regression tree methodology, as a new statistical method. RESULTS: The data showed that 38% of the students reported lifetime smoking and 16.9% of them reported current smoking with a male predominancy and increasing prevalence by age. Second hand smoking was reported at a 74.3% frequency with father predominance (56.6%). The significantly important factors that affect current smoking in these age groups were increased by household size, late birth rank, certain school types, low academic performance, increased second hand smoking, and stress (especially reported as separation from a close friend or because of violence at home). Classification and regression tree methodology showed the importance of some neglected sociodemographic factors with a good classification capacity. CONCLUSIONS: It was concluded that, as closely related with sociocultural factors, smoking was a common problem in this young population, generating important academic and social burden in youth life and with increasing data about this behaviour and using new statistical methods, effective coping strategies could be composed.

PMID: 16891446 [PubMed - indexed for MEDLINE]


[Soil contamination with Toxocara spp. eggs in the Krakow area and two nearby villages]

[Article in Polish]

Mizgajska H.
The distribution of Toxocara spp. eggs was studied in the Krakow city and nearby villages Grodkowice and Lazkowice. In Krakow out of 80 samples surveyed 30% were positive and the mean egg density was 3.7 eggs/100g soil. Court-yards and squares in the centre of the city were the most heavily contaminated areas (58% samples positive). In two nearby villages Toxocara spp. eggs were present in 16% samples examined and the mean egg density was 0.8 eggs/100g soil. Almost 90% of Toxocara spp. eggs recovered were infective. At least 80% of the eggs were classified as T. cati by egg's morphology.
The accurate estimation of gestational age in field studies in rural areas of developing countries continues to present difficulties for researchers. Our objective was to determine the best method for gestational age estimation in rural Guatemala. Women of childbearing age from four communities in rural Guatemala were invited to participate in a longitudinal study. Gestational age at birth was determined by an early second trimester measure of biparietal diameter, last menstrual period (LMP), the Capurro neonatal examination and symphysis-fundus height (SFH) for 171 women-infant pairs. Regression modelling was used to determine which method provided the best estimate of gestational age using ultrasound as the reference. Gestational age estimated by LMP was within +/-14 days of the ultrasound estimate for 94% of the sample. LMP-estimated gestational age explained 46% of the variance in gestational age estimated by ultrasound whereas the neonatal examination explained only 20%. The results of this study suggest that, when trained field personnel assist women to recall their date of LMP, this date provides the best estimate of gestational age. SFH measured during the second trimester may provide a reasonable alternative when LMP is unavailable.

Publication Types:
Research Support, N.I.H., Extramural
Research Support, Non-U.S. Gov't

PMID: 16879501 [PubMed - indexed for MEDLINE]


Risk factors for iron-deficiency anaemia among pregnant women living in rural Vietnam.

Aikawa R, Ngyen CK, Sasaki S, Binns CW.

Institute for International Cooperation, Japan International Cooperation Agency, Tokyo, Japan. ritsuko_aikawa@hotmail.com

OBJECTIVE: To assess the prevalence of anaemia in rural Vietnam and to determine its risk factors. DESIGN: A cross-sectional survey. SETTING: Vietnam, Nghe An Province. STUDY POPULATION: The total number of participants was 439. Of these
participants, one was excluded from the study due to a mental disorder. Forty-seven did not participate in the test for parasites and 68 did not complete at least one of the questions. RESULTS: The prevalence of anaemia (haemoglobin (Hb) <11.0 g dl(-1)) was 43.2% and of severe anaemia (Hb <8.0 g dl(-1)) was 0.5%. Taking iron tablets, the consumption of eggs and the preference for Western medicine significantly and positively correlated with Hb concentration in the pregnant women in a multiple regression analysis. Pregnancy duration and hookworm infestation significantly and negatively correlated with Hb concentration in the pregnant women. CONCLUSION: The prevalence of anaemia in rural Vietnam has remained as high as that found in the national anaemia survey in 2000. The results of the present study could aid in the development of an iron-deficiency anaemia programme among pregnant women in rural Vietnam that emphasises iron supplementation, parasite control and improved diet, including the consumption of eggs. The programme's focus should be on women who prefer traditional medicine to Western medicine.

Publication Types:
Research Support, Non-U.S. Gov't

PMID: 16870016 [PubMed - indexed for MEDLINE]


Tobacco consumption and its association with illicit drug use among men in Bangladesh.

Khan MM, Aklimunnessa K, Kabir MA, Kabir M, Mori M.

Department of Public Health, Sapporo Medical University School of Medicine, Japan. khan@sapmed.ac.jp

AIMS: This study examined the association of tobacco consumption (smoking and chewing) with illicit drug use among Bangladesh males. DESIGN: Cross-sectional survey data from the Bangladesh Demographic and Health Survey 2004 were used. SETTING: Bangladesh. PARTICIPANTS: A total of 4297 males aged 15-54 years.
MEASUREMENTS: Age, education, religion, marital status, place of residence; tobacco consumption such as cigarette and bidi smoking, chewing sada, pata, tobacco leaves, gul, betel quid with zarda; taking illicit drugs such as ganja, charas, heroin, pethedine, phensidyl; having sexually transmitted diseases (STDs). FINDINGS: Overall prevalence of tobacco consumption was 59%. Bidi smoking (29.6%), cigarette smoking (27.8%) and chewing betel quid with tobacco/zarda (17.5%) were predominant. Overall prevalence of illicit drug use was 4%. Ganja was the main drug (3%), followed by phensidyl (0.8%), heroin (0.3%) and charas (0.3%). Age, education, place of residence, marital status, having STDs, premarital and extra-marital sex were associated significantly with tobacco smoking. Almost all variables were also associated significantly with illicit drug use. Smoking cigarettes and bidi and eating tobacco leaves/shada pata/gul showed significantly positive associations with illicit drug use when adjusted for other variables. CONCLUSIONS: Tobacco consumption is common and associated positively with the illicit drug use among males in Bangladesh.

PMID: 16869847 [PubMed - indexed for MEDLINE]


Comment in:

Policies for traditional medicine in peripheral China.

Fan R, Holliday I.

Department of Public and Social Administration, City University of Hong Kong, Kowloon, Hong Kong.

This paper examines the management and practice of traditional medicine in three autonomous regions of the People's Republic of China: Inner Mongolia; Tibet; and Xinjiang. On this basis, the paper considers how established medical traditions might best be integrated into modern health care systems. It holds that indigenous forms of medicine that have been practiced successfully across many generations should be treated as different but equal within wider health care systems. China has made important progress toward this ideal but, at the same time, has quite a long way to go. It is highly recommended that Chinese policymakers increase their efforts to give all established traditional
Immunization status of children under 7 years in the Vikas Nagar area, North India.

Elliott C, Farmer K.

Herbertpur Christian Hospital, P.O. Herbertpur, District Dehradun, Uttaranchal, PIN 248142, India. catherineelliott@hotmail.com

BACKGROUND: Immunization has played a major part in reducing childhood morbidity and mortality worldwide. Knowledge of vaccine coverage and reasons for poor uptake are essential for the achievement of herd immunity. METHOD: An observational study was carried out in September 2003, in 10 villages in the Vikas Nagar area around Herbertpur Christian Hospital in Uttaranchal, North India. We aimed to assess vaccination rates and potential socio-cultural, economic and religious influences on vaccine uptake. A total of 470 families were visited and details of immunization status of the oldest child under 7 years in each household were taken. Age range of children included was 9 months to 6 years. RESULTS: The overall primary immunization rate was 77.2%, children receiving the first booster was 73.1% and children receiving the second booster was 58.4%. The most common vaccinations to be missed were the diphtheria, pertussis, tetanus at 18 months and diphtheria, tetanus at 5 years. Measles was the most frequently omitted vaccination in the primary course (19.4%). Poor education was the most frequent reason given by parents for failure to vaccinate. Immunization rates did not differ according to gender of the child. A lower immunization rate was found in Muslim families (65.4% primary) compared with Hindu (85.2%). Parental literacy had a beneficial effect such that up to 20% more children were immunized. CONCLUSION: These results highlight the potential importance of literacy, and religious or cultural influences on the success of the Expanded Programme of Immunization, and will have important
implications for areas with similar cultural demographics.

PMID: 16784497 [PubMed - indexed for MEDLINE]


Traditional healers, treatment delay, performance status and death from TB in rural South Africa.

Barker RD, Millard FJ, Malatsi J, Mkoana L, Ngoatwana T, Agarawal S, de Valliere S.

Department of Respiratory Medicine, King's College Hospital, London, UK. jack.barker@kingsch.nhs.uk

BACKGROUND: People in sub-Saharan Africa frequently consult traditional healers before reaching the government health services (GHS). This can lead to delays in starting effective anti-tuberculosis chemotherapy. To our knowledge, no studies have shown a direct relationship between visiting traditional healers, increased morbidity and death from TB. METHODS: All patients starting on anti-tuberculosis chemotherapy at a rural hospital in South Africa in 2003 were included in the study. TB nurses interviewed the patients and established how long they had had symptoms before treatment was started, whether they had visited traditional healers before coming to the hospital, their performance status and, later, whether they had died. RESULTS: Of 133 patients, those who attended a traditional healer took longer to access anti-tuberculosis chemotherapy (median 90 days, range 0-210) than those who went directly to the GHS (median 21, range 0-120). Patients who visited a traditional healer had worse performance status (P < 0.001), and were more likely to die (24/77 [31%] vs. 4/33 [12%], P = 0.04). CONCLUSION: Treatment delay due to visiting traditional healers can have dire consequences for patients with TB. Efforts are required to engage with health care practitioners outside the government sector to improve the prospects for patients with TB.

PMID: 16776455 [PubMed - indexed for MEDLINE]
Telegenetic medicine: improved access to services in an underserved area.

Stalker HJ, Wilson R, McCune H, Gonzalez J, Moffett M, Zori RT.

Division of Genetics, Department of Pediatrics, University of Florida, Gainesville, FL 32610, USA. stalkhj@peds.ufl.edu

We used telemedicine to improve genetics services to patients in the rural northwestern region of Florida. Patients were first seen via videoconference by a genetic counsellor, who obtained family and medical history. A local paediatrician then performed the physical examination, and a plan for evaluation was established. The videoconferencing equipment was connected at a bandwidth of 384 kbit/s, using three ISDN lines. During the first three telemedicine clinics, seven patients were evaluated and then returned to the centre for a face-to-face consultation with the clinical geneticist. No new diagnoses were made face-to-face that had not been identified by telemedicine. No diagnoses made by telemedicine were judged to be wrong when the child was evaluated face-to-face.

During a two-year study of patient satisfaction with 12 telegenetics clinics, the 50 families evaluated via videoconferencing were asked to complete surveys; 40 surveys were returned (a response rate of 80%). All individuals either strongly agreed or agreed that the evaluation of their child was appropriate, sufficient and sufficiently protective of their child's privacy. The waiting time for a new patient consultation with the clinical genetics team was 16.9 months (SD 1.9) at the start and 3.0 months (SD 1.0) at the end of the trial period. The difference was significant (t-test, P < 0.0001). Telegenetics allows more rapid assurance that a genetic syndrome has not been identified, or a quicker initial evaluation and diagnosis for children who do have an identifiable genetic syndrome.

PMID: 16774698 [PubMed - indexed for MEDLINE]
Drowning--a major but neglected child health problem in rural Bangladesh: implications for low income countries.

Rahman A, Giashuddin SM, Svanstrom L, Rahman F.

Institute of Child and Mother Health, Matuail, Dhaka, 1362, Bangladesh.
aminur@bdonline.com

This study was intended to estimate the magnitude and explore the determinants of childhood drowning in rural Bangladesh. A cross-sectional survey as well as a population-based case-control study was conducted. By multistage cluster sampling 51,147 children aged 1-4 years were identified from 108,827 rural households. All drownings in children aged 1-4 years in the preceding 5 years were identified and recruited as cases and two living children of the same age group were selected from the same localities as controls. Socio-economic, demographic, environmental and other related information was collected from mothers of both cases and controls by face-to-face interview with the help of structured questionnaires. The incidence of drowning among children aged 1-4 years old was 156.4 per 100,000 children-year. The highest rate (328.1 per 100,000; 95% CI 254.8 - 421.7) was observed in 1 year old male children. The proportional mortality due to drowning in the children was 27.9%. Mothers' age and literacy and family income were identified as risk factors. Drowning is one of the major causes of 1-4 years childhood mortality in Bangladesh. One-year-old male children from poor families were at great risk of drowning in rural Bangladesh.

Publication Types:
Research Support, Non-U.S. Gov't

PMID: 16707346 [PubMed - indexed for MEDLINE]
Prevalence of self-medication in rural areas of Portugal.

Nunes de Melo M, Madureira B, Nunes Ferreira AP, Mendes Z, Miranda Ada C, Martins AP.

Centro de Estudos de Farmacoepidemiologia, Associacao Nacional das Farmacias, Rua Marechal Saldanha, no 1, 1249-069, Lisboa, Portugal.

OBJECTIVES: To study the prevalence of self-medication among pharmacy customers in rural areas of Portugal, to assess possible predictors of self-medication and to find out whether there was a seasonal dependence in the purchase of drugs for self-medication. METHOD: A cross-sectional study during four different periods of a year was conducted. Community pharmacies of rural areas of Portugal were invited to participate and pharmacists were asked to recruit one person every hour during the opening hours and administer a questionnaire. Drugs dispensed were classified according to the Anatomical Therapeutic Chemical Classification system up to the second level. MAIN OUTCOME MEASURE: Prevalence of self-medication is defined as the percentage of patients acquiring a medicine that was not prescribed (written) or recommended (orally) by a physician. RESULTS: The prevalence of self-medication was 21.5%. Main therapeutic groups acquired for self-medication were "other alimentary tract and metabolism products" (A16; proportion acquired for self-medication= 75.0%), "throat preparations" (R02; 74.7%), "antiemetics and antinauseants" (A04; 70.0%), "cough and cold preparations" (R05; 56.5%), and "nasal preparations" (R01; 50.0%). Variables found to be predictors of self-medication were age, type of health professional or person consulted when a mild health problem occurred, time elapsed since last visit to the physician and time waited between setting an appointment and the actual visit. Seasonality seemed to occur for only "cough and cold preparations", for "dermatologicals" and for "anti-inflammatory and anti-rheumatic products". Conclusion: In rural Portugal about one fifth of the pharmacy customers engaged in self-medication. However, further research should be made to address appropriateness of self-medication.

Publication Types:
Research Support, Non-U.S. Gov't
Comparison of spatiotemporal distribution patterns of NO2 between four different types of air quality monitoring stations.

Nguyen HT, Kim KH.

Department of Earth and Environmental Sciences, Sejong University, 98 Goon Ja Dong, Gwang Jin Goo, Seoul 143-747, Republic of Korea.

The concentration data of nitrogen dioxide (NO(2)), obtained from four different types of air quality monitoring (AQM) stations in Korea (i.e., urban traffic (A), urban background (B), suburban background (C), and rural background (D)), were explored to evaluate the fundamental facets of its distribution and behavior. As there are many distinctions between these four types of AQM stations, the observed NO(2) values were clearly distinguished from each other.

It is found that the average NO(2) concentrations from all A stations exhibit notably high values within the range of 24.8 (Gwangju) to 54.6 ppb (Seoul), while those of all B stations change from 19.6 (Ulsan) to 34.7 ppb (Seoul). Similarly, large differences were also observed from NO(2) values measured between C and D type stations. The NO(2) values of the former were from 16.5 (Jeonbuk) to 30.2 ppb (Gyunggi), while the latter from 4.3 (Gyeongbuk) to 8.7 ppb (Gyunggi). Although their annual patterns are rather complicated to explain, the results by and large reflected the changes in the conditions of the surrounding environment. When the results are compared across seasons, most stations (A, B, and D types) tend to exhibit their maximum values in the winter followed by spring, fall, and summer. The results of this study confirm that the distribution patterns of NO(2) are fairly sensitive enough to reflect the basic characteristics of its source processes in association with such factors as the intensity of anthropogenic activity or population density.

Publication Types:
    Comparative Study
    Research Support, Non-U.S. Gov't
The influence of socioeconomic status on blood pressure of Indonesian prepubertal children.

Julia M, van Weissenbruch MM, Delemarre-van de Waal HA, Surjono A.

Prevalence of osteoarthritis, osteoporotic vertebral fractures, and spondylolisthesis among the elderly in a Japanese village.

Horikawa K, Kasai Y, Yamakawa T, Sudo A, Uchida A.

Department of Orthopaedic Surgery, Faculty of Medicine, Mie University, Mie, Japan.

Purpose: To study the prevalence of osteoarthritis, osteoporotic vertebral fractures, and spondylolisthesis among elderly residents of a Japanese village and to examine the correlation between radiographic evidence of abnormality and lower back pain. Methods: 205 men (mean age, 70.7 years) and 323 women (mean age, 70.5 years) in a Japanese village participated in this cross-sectional study. Plain lateral radiographs were taken from the lower thoracic spine to the sacral spine. They were evaluated by 3 independent orthopaedic surgeons for degree of osteoarthritis (using Weiner grading system) and the presence of osteoporotic vertebral fractures and spondylolisthesis. Results: The prevalence of osteoarthritis in elderly Japanese villagers was 38.3%, whereas that of osteoporotic vertebral fractures and spondylolisthesis was 17.8% and 8.9%, respectively. There was no significant difference in osteoarthritis between men and women, but osteoporotic vertebral fractures and spondylolisthesis were significantly more common in females (p<0.01). No significant correlation was observed between lower back pain and radiographic evidence of degenerative spinal disease. Conclusion: The prevalence of spondylolisthesis in elderly Japanese was much lower than that in whites or African Americans. The prevalence of osteoarthritis or osteoporotic vertebral fractures was comparable with other
English or US studies. Radiographic evidence of osteoarthritis, osteoporotic vertebral fractures, and spondylolisthesis is not necessarily associated with lower back pain.

Publication Types:
Research Support, Non-U.S. Gov't

PMID: 16598079 [PubMed - indexed for MEDLINE]


Parents and teachers reports of DSM-IV psychopathological symptoms in preschool children: differences between urban-rural Spanish areas.

Jane MC, Canals J, Ballespi S, Vinas F, Esparo G, Domenech E.

Child and Adolescent Psychopathology Unit, Dept. of Health Psychology and Social Psychology, Universitat Autonoma de Barcelona, Campus de Bellaterra, Edifici B, 08193, Bellaterra, Spain. mariaclaustre.jane@uab.es

BACKGROUND: This study used DSM-IV criteria to analyse reports from teachers and parents and to compare behavioural and emotional symptoms in Spanish preschool children from both urban and rural populations. METHOD: The field survey was conducted in two geographical areas in Catalonia (Spain). A sample of 1104 children (56.67% boys and 43.32% girls) aged 3-6 years participated in this study: 697 were from urban areas and 408 from rural ones. The Early Childhood Inventory-teachers' and parents' versions (ECI-4) [Gadow KD, Sprafkin J (1997)-was used as the screening instrument. RESULTS: The teachers' and parents' reports assigned 32.7 and 46.7%, respectively, to one or more ECI-4 categories. Significant differences between sexes were found in teachers' reports. The whole disorders were significantly more prevalent in the urban sample than in the rural one (30.6 vs. 20.3%). The most prevalent disorders in both areas were Anxiety Disorders and Behavioural Problems, and the least prevalent were Mood
Disorders and Autistic Disorders. CONCLUSIONS: The findings indicate that there are some differences in the prevalence rates of preschool psychopathological disorders between rural and urban Spanish areas.

Publication Types:
Research Support, Non-U.S. Gov’t

PMID: 16520884 [PubMed - indexed for MEDLINE]


Increased severe anemia in HIV-1-exposed and HIV-1-positive infants and children during acute malaria.

Otieno RO, Ouma C, Ong’echa JM, Keller CC, Were T, Waindi EN, Michaels MG, Day RD, Vulule JM, Perkins DJ.

Department of Zoology, Maseno University, Kisumu, Kenya.

OBJECTIVE: Since the primary hematological complication in both pediatric HIV-1 and malaria is anemia, co-infection with these pathogens may promote life-threatening severe malarial anemia (SMA). The primary objective of the study was to determine if HIV-1 exposure [HIV-1(exp)] and/or HIV-1 infection [HIV-1(+)] increased the prevalence of SMA in children with acute malaria. DESIGN: The effect of HIV-1 exposure and HIV-1 infection on the prevalence of SMA (hemoglobin < 6.0 g/dl), parasitemia (parasites/microl), and high-density parasitemia (HDP, >or= 10 000 parasites/mul) was investigated in children <or= 2 years of age presenting at hospital with acute Plasmodium falciparum malaria in a rural holoendemic malaria transmission area of western Kenya. METHODS: Upon enrollment, a complete hematological and clinical evaluation was performed on all children. Malaria parasitemia was determined and children with acute P. falciparum malaria were evaluated for HIV-1 exposure and infection by two rapid serological antibody tests and HIV-1 DNA PCR, respectively. RESULTS: Relative to HIV-1(-) group (n = 194), the HIV-1(exp) (n = 100) and HIV-1(+) (n = 23) groups
had lower hemoglobin concentrations (P < 0.001 and P < 0.001, respectively), while parasitemia and HDP were equivalent between the three groups. Multivariate analyses demonstrated that the risk of SMA was elevated in HIV-1(exp) children (odds ratio, 2.17; 95% confidence interval, 1.25-3.78; P < 0.01) and HIV-1(+) children (odds ratio, 8.71; 95% confidence interval, 3.37-22.51; P < 0.0001). The multivariate model further revealed that HIV-1 exposure or infection were not significantly associated with HDP. CONCLUSIONS: Results presented here demonstrate that both HIV-1 exposure and HIV-1 infection are associated with increased prevalence of SMA during acute P. falciparum infection, independent of parasite density.

Publication Types:
Research Support, N.I.H., Extramural

PMID: 16511422 [PubMed - indexed for MEDLINE]


Association of genital shedding of herpes simplex virus type 2 and HIV-1 among sex workers in rural Zimbabwe.


Royal Free and University College Medical School, London, UK. frances@uz-ucsf.co.zw

INTRODUCTION: Herpes simplex virus type 2 (HSV-2) facilitates sexual acquisition of HIV-1 but data on transmission are less clear. In this study the interaction between genital shedding of HIV-1 and HSV-2 was explored among Zimbabwean sex workers. METHODS: Women (n = 214) were interviewed about genital symptoms. Blood samples were analysed for HIV-1 and HSV-2 antibodies, HIV-1 plasma viral load (PVL) and CD4 lymphocyte count and genital swabs for detection of HIV-1 and HSV-2 genital shedding, Chlamydia trachomatis, Neisseria gonorrhoeae and Trichomonas vaginalis, and a cervico-vaginal lavage (CVL) for quantitative
measurement of HIV-1 shedding. Shedding analyses were undertaken on women co-infected with HSV-2 and HIV-1. RESULTS: A total of 124 women were co-infected with HIV-1 and HSV-2; 58 were infected with HSV-2 alone. Most HIV-1-infected women were co-infected with HSV-2 (95.4%). Genital HIV-1 shedding was detected in 84.3% of co-infected women and was associated with low CD4 cell count and high PVL but not with reported symptoms of genital herpes or genital shedding of HSV-2. There was no difference in HIV-1 shedding among women shedding HSV-2 (79.3%) and women not shedding HSV-2 (83.2%) (P = 0.64). The adjusted odds ratio for HIV-1 shedding between HSV-2 shedders and non-shedders was 0.8 [95% confidence interval (CI), 0.2-3.3]. HIV-1 PVL(log10) and CVL viral load(log10) were correlated (r = 0.38; 95%CI, 0.2-0.5). After adjusting for PVL, genital symptoms and age, HSV-2 shedding had no effect on CVL viral load (P = 0.13).

CONCLUSION: Rate and quantity of HIV-1 genital shedding do not appear to be altered by presence of HSV-2 genital shedding.

Publication Types:
  Research Support, Non-U.S. Gov't

PMID: 16511420 [PubMed - indexed for MEDLINE]


Ultrasound verification of bladder damage is associated with known biomarkers of bladder cancer in adults chronically infected with Schistosoma haematobium in Ghana.


Department of Molecular Microbiology and Immunology, The Johns Hopkins Bloomberg School of Public Health, Baltimore, MD 21205, USA. cshiff@jhsph.edu

Long-term infection with urinary schistosomiasis has been associated with
development of bladder cancer. However, bladder cancer is difficult to diagnose without invasive measures such as cystoscopy, thus there is little information on the epidemiological extent of the problem. Studies have been either case-control studies or case examinations in different geographical areas, estimating a schistosome-associated bladder cancer incidence of 3-4 cases per 100,000. We have used three indicators to examine the potential bladder cancer problem in an adult rural population in Ghana endemic for urinary schistosomiasis: (i) parasitological positivity; (ii) age prevalence of bladder damage from ultrasound scans; and (iii) detection of biomarkers associated with the presence of bladder cancer. Biomarkers were BLCA-4 test (urine) and nuclear morphometry or quantitative nuclear grading (QNG) of epithelial cells (urine sediment), which quantifies DNA ploidy status and nuclear morphometric descriptors, both of which can detect the presence of bladder cancer. Our data show an increasing association between age, severe bladder abnormalities and the occurrence of these biomarkers. Sixty-two of 73 cytopathology Papanicolaou-stained smears were seen to have squamous metaplasia. Although further investigations are needed, we suggest that schistosome-associated bladder cancer is an important public health concern in areas where Schistosoma haematobium is prevalent.

Publication Types:
  Research Support, N.I.H., Extramural

PMID: 16443246 [PubMed - indexed for MEDLINE]


Maternal health-seeking behavior and associated factors in a rural Nigerian community.

Osubor KM, Fatusi AO, Chiwuzie JC.

Department of Community Medicine, University of Benin Teaching Hospital, Benin city, Nigeria.

OBJECTIVES: To assess maternal health services and health-seeking behavior in a
rural community (Ologbo), located in the South-south zone of Nigeria.

METHODS:
Structured questionnaire was administered to 225 randomly selected mothers (age 15-49 years), and was analyzed using SPSS. Six focus group discussion sessions were also conducted—four for community women and two for health workers.

RESULTS: Teenagers constituted 13.3% of the respondents. The average number of children per woman ranged from 2.5 for teenagers to 9.0 for women aged 45-49 years. Eighty percent of respondents knew at least one major medical cause of maternal mortality: the most common causes mentioned were hemorrhage (31.8%) and obstructed labor (17.3%). Private maternity center was the most preferred place for childbirth (37.3%), followed by traditional birth attendants (TBAs) (25.5%). Government facility was preferred by only 15.7%: reasons for the low preference included irregularity of staff at work (31.4%), poor quality of services (24.3%), and high costs (19.2%). Among the 81 women that delivered within a 1-year period, only 9.9% received antenatal care, 6.2% received two doses of tetanus toxoid, while 4.9% attended postnatal clinic. Private midwives and TBAs attended 49.4 and 42.0% of deliveries, respectively. Education was found to be significantly associated with choice of place for delivery (p < 0.05), but no association was found with respect to age and marital status. Only 11.4% of mothers were practicing family planning.

CONCLUSIONS: Poor health-seeking behavior is a challenge in rural Nigeria, and interventions are needed to achieve improved maternal health status.

PMID: 16362233 [PubMed - indexed for MEDLINE]


Appropriate technology for rural India - solar decontamination of water for emergency settings and small communities.

Kang G, Roy S, Balraj V.

Department of Gastrointestinal Sciences, Christian Medical College, Vellore 632004, Tamilnadu, India. gkang@cmcvellore.ac.in
A commercial solar water heating system was evaluated for its effectiveness in decontaminating drinking water with a view to use in emergency situations. A total of 18 seeding experiments carried out over 6 months with $10^5$ to $10^7$ Escherichia coli/ml showed that the solar heater produced 125 l of bacteriologically safe water in 4 h when the ambient temperature was above 30 degrees C, with a holding time of at least 2 h. The solar water heating system is inexpensive, easy to transport and set up and could provide safer drinking water for 50 people a day. It would be effective in the decrease and prevention of waterborne disease in emergency situations, and is appropriate for use in small communities.

Publication Types:
Research Support, Non-U.S. Gov't

PMID: 16289648 [PubMed - indexed for MEDLINE]


Polychlorinated biphenyls (PCBs) in soils of the Moscow region: concentrations and small-scale distribution along an urban-rural transect.

Wilcke W, Krauss M, Safronov G, Fokin AD, Kaupenjohann M.

Geographical Institute, Johannes Gutenberg University, D-55099 Mainz, Germany.
wolfgang.wilcke@uni-mainz.de

In soils of the Moscow region, we examined PCB concentrations in bulk samples and aggregate fractions. Topsoils under grassland and forest at five locations along a southeast-bound transect from Moscow and at a northeastern background location (grassland only) were analysed. We collected aggregates >1 cm and fractionated them into interior and exterior portions and also analysed the remaining soil without the aggregates >1 cm. The concentrations of the sum of 17 PCBs (sigma17PCBs) in 35 bulk soil samples ranged from 3.1 to 42 microg kg(-1). This was 48-61% of the sigma33PCBs determined in 23 selected samples. The congeners 138(+158), 101 and 52 were most abundant. All PCB concentrations and the degree of chlorination declined with increasing distance from Moscow. The PCBs were accumulated in the aggregate exterior (on average 146% of the
sigma17PCBs in bulk soil). We conclude that the ecotoxicological risk of PCBs in soils may not be properly assessed with the conventional bulk soil analysis.

Publication Types:
   Research Support, Non-U.S. Gov't

PMID: 16236406 [PubMed - indexed for MEDLINE]


Comment in:

Season of death and birth predict patterns of mortality in Burkina Faso.

Kynast-Wolf G, Hammer GP, Muller O, Kouyate B, Becher H.

University of Heidelberg, Germany, Department of Tropical Hygiene and Public Health, Im Neuenheimer Feld 324, 69120 Heidelberg, Germany. gisela.kynast-wolf@urz.uni-heidelberg.de

BACKGROUND: Mortality in developing countries has multiple causes. Some of these causes are linked to climatic conditions that differ over the year. Data on season-specific mortality are sparse. METHODS: We analysed longitudinal data from a population of approximately 35,000 individuals in Burkina Faso. During the observation period 1993-2001, a total number of 4,098 deaths were recorded. The effect of season on mortality was investigated separately by age group as (i) date of death and (ii) date of birth. For (i), age-specific death rates by month of death were calculated. The relative effect of each month was assessed using the floating relative risk method and modelled continuously. For (ii), age-specific death rates by month of birth were calculated and the mean date of birth among deaths and survivors was compared. RESULTS: Overall mortality was found to be consistently higher during the dry season (November to May). The pattern was seen in all age groups except in infants where a peak was seen around the end of the rainy season. In infants we found a strong association between high mortality and being born during the time period September to February. No effect was seen for the other age groups. CONCLUSIONS: The observed
excess mortality in young children at or around the end of the rainy season can
be explained by the effects of infectious diseases and, in particular, malaria
during this time period. In contrast, the excess mortality seen in older
children and adults during the early dry season remains largely unexplained
although specific infectious diseases such as meningitis and pneumonia are
possible main causes. The association between high infant mortality and being
born at around the end of the rainy season is probably explained by most of the
malaria deaths in areas of high transmission intensity occurring in the second
half of infancy.

Publication Types:
   Research Support, Non-U.S. Gov't

PMID: 16076860 [PubMed - indexed for MEDLINE]


[Epidemiological data of chronic obstructive pulmonary disease in Yanqing
County in Beijing]

[Article in Chinese]

Yao WZ, Zhu H, Shen N, Han X, Liang YJ, Zhang LQ, Sun YC, Hao ZT, Zhao
MW.

Department of Respiratory Medicine, Peking University Third Hospital, Beijing
100083, China.

OBJECTIVE: To evaluate the epidemiological characteristic and risk factors of
chronic obstructive pulmonary disease (COPD) in the rural area of Beijing.
METHODS: The data of 1,624 people aged more than 40 in 5 villages in
Yanqing County in Beijing were collected. The habitation condition, life and cooking
habit, smoking history, personal history and family history were asked, and
their physical examinations and lung function tests were conducted.
RESULTS: The prevalence of COPD was 9.11% in this area, 15.05% in males and 3.76% in
females. There were significant differences in sex, age, smoking history, family history,
frequent cough before age 14 and body index between the COPD and non-
COPD groups. The prevalence of cor pulmonale was 1.66% in this area.
CONCLUSION: The
prevalence of COPD was high in this area and related with sex, age, smoking history, family history, frequent cough before age 14 and low body index. Other factors such as environment, working exposure need to be studied in the future. COPD is a major public health problem, which should claim more attention.

Publication Types:
   English Abstract
   Research Support, Non-U.S. Gov't

PMID: 15841136 [PubMed - indexed for MEDLINE]