1: Sekiyama M, Ohtsuka R.
   Significant effects of birth-related biological factors on pre-adolescent
   nutritional status among rural Sundanese in West Java, Indonesia.
   PMID: 16082854 [PubMed - indexed for MEDLINE]

2: Matthews Z, Ramakrishna J, Mahendra S, Kilaru A, Ganapathy S.
   Birth rights and rituals in rural south India: care seeking in the intrapartum
   period.
   PMID: 16082853 [PubMed - indexed for MEDLINE]

3: Zhong XB, Leng L, Beitin A, Chen R, McDonald C, Hsiao B, Jenison RD, Kang I,
   Simultaneous detection of microsatellite repeats and SNPs in the macrophage
   migration inhibitory factor (MIF) gene by thin-film biosensor chips and
   application to rural field studies.
   PMID: 16077028 [PubMed - indexed for MEDLINE]

4: Phuanukoonnnon S, Mueller I, Bryan JH.
   Effectiveness of dengue control practices in household water containers in
   Northeast Thailand.
   PMID: 16045462 [PubMed - indexed for MEDLINE]

5: Jurgelenas A, Mieliauskaite D, Filipaviciute R.
   From the former Soviet Union: Socioeconomic health inequalities exist in
   post-communist Lithuania.
   BMJ. 2005 Jul 23;331(7510):236. No abstract available.
   PMID: 16037476 [PubMed - indexed for MEDLINE]

6: Weinert C, Lotts KC, Winters CA.
   The Center for Research on Chronic Health Conditions: a strategy for enhancing
rural nursing research.
PMID: 16033046 [PubMed - indexed for MEDLINE]

7: Shively EH, Shively SA.
Threats to rural surgery.
PMID: 16023431 [PubMed - indexed for MEDLINE]

8: Carter J.
Reflections from a public health nurse--then and now.
PMID: 16022051 [PubMed - indexed for MEDLINE]

9: Reed DB, Hoffman C, Westneat SC.
Nurses' agricultural education in the southeastern United States.
PMID: 16021804 [PubMed - indexed for MEDLINE]

10: Mann A, Hoke MM, Williams JC.
Lessons learned: research with rural Mexican-American women.
PMID: 15988451 [PubMed - indexed for MEDLINE]

11: Loureiro G, Rabaca MA, Blanco B, Andrade S, Chieira C, Pereira C.
Urban versus rural environment--any differences in aeroallergens sensitization in an allergic population of Cova da Beira, Portugal?
PMID: 15984318 [PubMed - indexed for MEDLINE]

PMID: 15958155 [PubMed - indexed for MEDLINE]

Feeding practices in 105 counties of rural China.
PMID: 15948878 [PubMed - indexed for MEDLINE]
14: Peek-Asa C, Zwerling C, Young T, Stromquist AM, Burmeister LF, Merchant JA.
PMID: 15933412 [PubMed - indexed for MEDLINE]

15: Simms VM, Makalo P, Bailey RL, Emerson PM.
PMID: 15927217 [PubMed - indexed for MEDLINE]

16: Ameen J, Coll AM, Peters M.
PMID: 15926963 [PubMed - indexed for MEDLINE]

PMID: 15916786 [PubMed - indexed for MEDLINE]

18: Rinne S, Rodas EJ, Galer-Unti R, Glickman N, Glickman LT.
PMID: 15916785 [PubMed - indexed for MEDLINE]

19: Jutavijittum P, Jiviriyawat Y, Yousukh A, Hayashi S, Toriyama K.

PMID: 15896185 [PubMed - indexed for MEDLINE]


PMID: 15893351 [PubMed - indexed for MEDLINE]


PMID: 15864941 [PubMed - indexed for MEDLINE]


PMID: 15849707 [PubMed - indexed for MEDLINE]


PMID: 15849701 [PubMed - indexed for MEDLINE]


PMID: 15831688 [PubMed - indexed for MEDLINE]
26: Faber M, Kruger HS.
   For the patient. Understanding reasons for obesity is important to weight control programs.
PMID: 15825985 [PubMed - indexed for MEDLINE]

27: Faber M, Kruger HS.
   Dietary intake, perceptions regarding body weight, and attitudes toward weight control of normal weight, overweight, and obese Black females in a rural village in South Africa.
PMID: 15825970 [PubMed - indexed for MEDLINE]

28: Grandinetti A, Chang HK, Theriault A, Mor J.
   Metabolic syndrome in a multiethnic population in rural Hawaii.
PMID: 15825969 [PubMed - indexed for MEDLINE]

   Prevalence and correlates of depression in late life: a population based study from a rural Greek town.
PMID: 15799076 [PubMed - indexed for MEDLINE]

30: Ballenberger A.
   [Nursing care in Benin/West Africa]
PMID: 15712708 [PubMed - indexed for MEDLINE]

31: Reyes H, Perez-Cuevas R, Sandoval A, Castillo R, Santos JI, Doubova SV, Gutierrez G.
   The family as a determinant of stunting in children living in conditions of extreme poverty: a case-control study.
PMID: 15571622 [PubMed - indexed for MEDLINE]

Abstracts

Significant effects of birth-related biological factors on pre-adolescent nutritional status among rural Sundanese in West Java, Indonesia.

Sekiyama M, Ohtsuka R.

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The Sundanese inhabiting West Java, the second largest ethnic group in Indonesia, are characterized by a high prevalence of child malnutrition, together with high fertility. Based on an anthropometric measurement and interview survey of 310 children aged 5-12 years in a rural Sundanese village, this study examined the relative significance of the effects of eight biological, eight socioeconomic status (SES) and four health behavioural factors on their Z scores for height-for-age (HAZ) and weight-for-age (WAZ) in particular. Three biological factors, i.e. birth interval, birth weight and mother's body weight, and one SES factor, i.e. mother's occupation, were selected as the predictors of the two Z scores by regression analysis, indicating more significant effects of the biological factors than the other factors. This pattern is judged to occur in less-developed and high-fertility
populations. Since these two Z scores were worse in the subject children than in the under-5-year-old children from the same village, more attention should be paid to the long-lasting effects of birth-related biological factors up to pre-adolescent ages, as an insufficient nutritional status tends to damage growth and health in adolescence and adulthood.

PMID: 16082854 [PubMed - indexed for MEDLINE]


Birth rights and rituals in rural south India: care seeking in the intrapartum period.

Matthews Z, Ramakrishna J, Mahendra S, Kilaru A, Ganapathy S.

Division of Social Statistics, University of Southampton, UK.

Maternal morbidity and mortality are high in the Indian context, but the majority of maternal deaths could be avoided by prompt and effective access to intrapartum care (WHO, 1999). Understanding the care seeking responses to intrapartum morbidities is crucial if maternal health is to be effectively improved, and maternal mortality reduced. This paper presents the results of a prospective study of 388 women followed through delivery and traditional postpartum in rural Karnataka in southern India. In this setting, few women use the existing health facilities and most deliveries occur at home. The analysis uses quantitative data, collected via questionnaires administered to women both during pregnancy and immediately after delivery. By virtue of its prospective design, the study gives a unique insight into intentions for intrapartum care.
during pregnancy as well as events following morbidities during labour. Routine care in the intrapartum period, both within institutions and at home, and impediments to appropriate care are also examined. The study was designed to collect information about health seeking decisions made by women and their families as pregnancies unfolded, rather than trying to capture women's experience from a retrospective instrument. The data set is therefore a rich source of quantitative information, which incorporates details of event sequences and health service utilization not previously collected in a Safe Motherhood study. Additional qualitative information was also available from concurrent in-depth interviews with pregnant women, their families, health care providers and other key informants in the area. The level of unplanned institutional care seeking during the intrapartum period within the study area was very high, increasing from 11% planning deliveries at a facility to an eventual 35% actually delivering in hospitals. In addition there was a significant move away from planned deliveries with the auxiliary nurse midwife (ANM), to births with a lay attendant or dai. The proportion of women who planned for an ANM to assist was 49%, as compared with the actual occurrence, which was less than half of this proportion. Perceived quality of care was found to be an important factor in health seeking behaviour, as was wealth, caste, education and experience of previous problems in pregnancy. Actual care given by a range of practitioners was found to contain both beneficial and undesirable elements. As a response to serious morbidities experienced within the study period, many women were able to seek care although sometimes after a long delay.
Those women who experienced inadequate progression of labour pains were most likely to proceed unexpectedly to a hospital delivery.

PMID: 16082853 [PubMed - indexed for MEDLINE]


Simultaneous detection of microsatellite repeats and SNPs in the macrophage migration inhibitory factor (MIF) gene by thin-film biosensor chips and application to rural field studies.


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Microsatellite repeat and single nucleotide polymorphisms (SNPs) are abundant sources of genetic variation, but existing methodologies cannot simultaneously detect these variants in a facile or inexpensive way. We describe herein a thin-film biosensor chip based on an allele-discriminating oligonucleotide array that enables genotyping for both microsatellite repeats and SNPs in a single analysis. We validated this methodology for the functionally polymorphic -794 CATT(5-8) repeat and -173 G/C SNP present in the promoter of the human gene for macrophage migration inhibitory factor (MIF). In a comparison of 30 samples collected at a rural hospital in Zambia, we observed a 100% concordance for both the CATT repeat and G/C SNP between the biosensor methodology and the conventional capillary electrophoresis. The biosensor chips are low in cost and once printed, they are robust and require no instrumentation for analysis.
combined with multiple displacement amplification, this methodology can be utilized in primitive settings for the genotyping of nanogram quantities of DNA present in blood, dried and stored on filter paper samples. We applied this methodology to a field study of MIF genotype in children with malaria, and provide first evidence for a potential association between MIF alleles and malaria infection. We also present data supporting significant population stratification of the low- versus high-expression forms of MIF that may bear on the role of this gene in infectious diseases.

PMID: 16077028 [PubMed - indexed for MEDLINE]


Effectiveness of dengue control practices in household water containers in Northeast Thailand.

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OBJECTIVE: To investigate the influence of larval control methods (using temephos, keeping fish and covering containers with lids), water use and weekly cleaning of containers on the presence of Aedes aegypti larvae in water-storage containers in rural and urban households in Khon Kaen province. METHOD: Cross-sectional questionnaire survey and larval survey covered 966 households and 5821 containers were inspected. RESULT: In rural and urban areas larval control was patchy and often ineffective. Consequently, the mosquito indices exceed the target indices for dengue control with the Breteau Indices of 201 and
113, and Container Indices of 25 and 28 in rural and urban areas, respectively.
The containers most frequently infested with larvae were rectangular cement
collectors storing water for bathing (rural: 37.2%; urban: 35%) and flushing the
toilets (rural: 35.7%; urban: 34.3%). Keeping fish
[adjusted odds ratio (AOR): 0.08-0.16] was the most effective methods of control.
correctly covering
containers with lids was similarly effective (AOR: 0.10-0.25) when used on jars
for storing drinking water. However, frequent use of
containers reduced the
effectiveness of lids. Temephos was effective only in
dragon jars in urban areas
(AOR: 0.46) where a standard package of temephos were
available. Weekly cleaning
of containers was an effective method for larval control
in most types of
containers. A combination of control methods increased
effectiveness.
CONCLUSION: This study highlights the complex interaction
of household water use
and larval control practices as well as the importance of
determining the most
effective control measures compatible with water practices
for implementing
control promotion.

PMID: 16045462 [PubMed - indexed for MEDLINE]

5: BMJ. 2005 Jul 23;331(7510):236.

Comment on:


From the former Soviet Union: Socioeconomic health
inequalities exist in
post-communist Lithuania.

Jurgelenas A, Mieliauskaite D, Filipaviciute R.

Publication Types:

Comment
Letter

The Center for Research on Chronic Health Conditions: a strategy for enhancing rural nursing research.

Weinert C, Lotts KC, Winters CA.

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Conducting nursing research with rural populations is influenced by the multidimensional characteristics of rural dwellers, the rural environment, the paucity of nurse scientists prepared and supported to conduct rural research, and institutional constraints common to academic institutions serving rural communities. Collaboration across rural academic settings is therefore integral to the success of rural nursing science. The purpose of this article is to discuss the role of the Center for Research on Chronic Health Conditions in Rural Dwellers as a strategy for overcoming the challenges of conducting rural nursing research in the rural western mountain region of the United States.

PMID: 16033046 [PubMed - indexed for MEDLINE]


Threats to rural surgery.

Shively EH, Shively SA.

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BACKGROUND: Rural surgery is a subject that often is discussed but little has been done to address the problems of rural surgery. With a decreased interest in broad-based general surgery, an aging population (especially in rural America), an aging population of general surgeons who are retiring early, surgical care in rural North America is approaching a crisis. METHODS: An internet search was performed to analyze the problems in rural surgery. Also, the experience of a 90-bed rural hospital in south central Kentucky was analyzed. RESULTS: Approximately 17% to 25% of the population in America (55 million) live in a rural environment, depending on the way rural is defined. Rural general surgeons may become an endangered species because of multiple factors, including: lack of broad-based training, increased specialization, lifestyle issues, decreased interest in surgery, increased technology, aging rural surgeons, increased workload for the general surgeon, decreased reimbursement, increased expenses, increased expectations of the general public, and increased malpractice costs. Solutions include programs dedicated to training rural surgeons, networking with university tertiary care hospitals, equal pay for work performed regardless of the location, regionalization of rural surgery centers with multiple surgeons so the lifestyle issues can be addressed. CONCLUSIONS: There is an increasing need for broad-based general surgeons in rural America. Training programs need to address the problem by offering dedicated training programs that should include primary training in general surgery and fellowships for special needs. A new specialty in rural general surgery needs to be created.

Publication Types:
  Review
  Review, Tutorial
Reflections from a public health nurse—then and now.

Carter J.

Lincoln and Moore County Health Departments, Tennessee Department of Health, USA.

Publication Types:
  Biography
  Historical Article

Nurses' agricultural education in the southeastern United States.

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The number of nurses across the United States with expertise in agricultural health nursing is unknown, yet as many as 8,000 are needed. This article describes agricultural health content in nursing programs in the southeastern United States. Agriculture is primarily family based but ranks among the top three most hazardous industries in America. Nurses in the southeastern United States serve more than 541,000 farm families, more than a quarter of the nation's agricultural population. A 15-item survey was mailed to 185 nursing schools located within 13 southeastern states. Information was requested about
undergraduate and graduate curricula that included information about agricultural health and safety. Surveys were returned from 113 programs (61.1%). Schools with larger percentages of rural students were more likely to include mention of agricultural health; however, scant attention was given to any rurally focused content. In 27.4% of the schools, no mention of agricultural health issues was made, and 54.0% of nursing faculty who completed the survey were not aware of the need for nurses with agricultural health expertise. Results suggested that, when agricultural health topics were presented in class, student interest in the topic increased. Given the occupational hazards faced in agriculture and the region's economic dependence on agriculture, increased attention should be focused on agricultural health content within nursing programs.

Publication Types:
   Evaluation Studies

PMID: 16021804 [PubMed - indexed for MEDLINE]


Lessons learned: research with rural Mexican-American women.

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The authors share lessons learned from 5 community-based research studies involving rural Mexican-American women. The 10 lessons revolved around compensation, confidentiality, recruitment, crossing paths, mailings, locating people, participation/attendance, translation, children, and closure. Despite
their clinical knowledge and previous experiences in service with this population, researchers found recruiting and retaining participants and data collection far more challenging than expected. This article is significant as it illustrates the extensive time, expense, and effort required to conduct research with a rural population experiencing health disparities. Recommendations are provided to assist in planning and designing community-based and culturally sensitive research that has realistic time and budget allowances.

Publication Types:
   Review
   Review, Tutorial

PMID: 15988451 [PubMed - indexed for MEDLINE]

Urban versus rural environment--any differences in aeroallergens sensitization in an allergic population of Cova da Beira, Portugal?

Loureiro G, Rabaca MA, Blanco B, Andrade S, Chieira C, Pereira C.

Immuonoallergology Department, Coimbra University Hospital, Portugal.

Cova da Beira is an interior central region of Portugal, with a population of 93000 inhabitants divided in urban and rural living areas. The aim of this study was to assess the prevalence of aeroallergens sensitisation in an allergic population, according to the urban and the rural environmental exposure and according to age. 1096 patients observed for suspected allergic symptoms, for a five-year period (1995-2000) were submitted to skin prick tests and were included in this study. They were divided in two environmental exposure groups.
(A: urban; B: rural) and in to four age subgroups (subgroup I: < or = 10yr;
subgroup II: 11-20yr; subgroup III: 21-40yr; subgroup IV: >40yr). The total population included 444 male (40.5%) and 652 female (59.4%) with an average age of 26.5 +/- 17.2 yr. 83% of the 1096 performed SPT were positive. The frequency of aeroallergens sensitisation, comparing the urban versus the rural environment, was respectively: D. pteronyssinus 32% and 34.7%, D. farinae 28.5% and 30.7%, moulds mixture 15.3% and 12%, cat dander 17.1% and 15.2%, dog dander 11% and 10%, grasses mixture 51.3% and 36.4%, Parietaria judaica 29.4% and 14%, Olea europea 30.2% and 23.3%. The sensitisation to indoor aeroallergens, was similar in all the age subgroups and it was lower than that to pollens. There were important differences concerning the pollen sensitisation, when comparing the urban and the rural environmental exposure. We admit that pollution could enhance the sensitisation to pollens in the urban environment.

PMID: 15984318 [PubMed - indexed for MEDLINE]


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Verbal autopsy (VA) is used to ascertain cause-specific neonatal mortality using parental/familial recall. We sought to compare agreement between causes of death.
obtained from the VA by physician review vs. computer-based algorithms. Data were drawn from a cluster-randomised trial involving 4130 live-born infants and 167 neonatal deaths in the rural Sarlahi District of Nepal. We examined the agreement between causes ascertained by physician review and algorithm assignment by the kappa (kappa) statistic. We also compared responses to identical questions posed posthumously during neonatal VA interviews with those obtained during maternal interviews and clinical examinations regarding condition of newborns soon after birth. Physician reviewers assigned prematurity or acute lower respiratory infection (ALRI) as causes of 48% of neonatal deaths; 41% were assigned as uncertain. The algorithm approach assigned sepsis (52%), ALRI (31%), birth asphyxia (29%), and prematurity (24%) as the most common causes of neonatal death. Physician review and algorithm assignment of causes of death showed high kappa for prematurity (0.73), diarrhoea (0.81) and ALRI (0.68), but was low for congenital malformation (0.44), birth asphyxia (0.17) and sepsis (0.00). Sensitivity and specificity of VA interview questions varied by symptom, with positive predictive values ranging from 50% to 100%, when compared with maternal interviews and examinations of neonates soon after birth. Analysis of the VA data by physician review and computer-based algorithms yielded disparate results for some causes but not for others. We recommend an analysis technique that combines both methods, and further validation studies to improve performance of the VA for assigning causes of neonatal death.

PMID: 15958155 [PubMed - indexed for MEDLINE]

Feeding practices in 105 counties of rural China.

Wang X, Wang Y, Kang C.

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BACKGROUND: China has the largest population in the world with more than 70% of the people living in rural areas. Over 34% of children under the age of 5 years are responded to show moderate or severe growth stunting, so United Nations International Children's Emergency Fund and Chinese Ministry of Health conducted this large-scale survey in China. This study aimed to learn the feeding practice, to find the problems in child-feeding practice and to provide evidence for the government to develop an approach to child malnutrition in rural China.

METHODS: A structured questionnaire was used to survey 21,036 mothers of children with age of 0-24 months. RESULTS: Of the 20,915 children, 98.22% were breastfeeding and 24.36% were exclusively breastfeeding. The proportion of children with weekly protein intake was 78.47%. Among the infants under 4 months, the risk of pneumonia in the group of exclusive breastfeeding was 1.69%, while in the group of non-exclusive breastfeeding was 3.63%, showing a statistically significant difference between the two groups. The risk of diarrhoea in the group of exclusive breastfeeding and in the group of non-exclusive breastfeeding among the infants under 4 months was 24.37% and 40.86%, respectively, also showing a statistically significant difference between the two groups. For children with age 4-6 months, the complementary feeding contributed to a higher prevalence of diarrhoea, but not pneumonia.
CONCLUSIONS: The breastfeeding was very common, but the exclusive breastfeeding was quite low and the exclusive breastfeeding for children under the age of 4 months decreased the risks of pneumonia and diarrhoea. For children with age 4-6 months, the exclusive breastfeeding could decrease the risk of diarrhoea, too. Protein intake was insufficient for children in rural China. The rural people lacked health knowledge and were greatly influenced by traditional feeding practices.

PMID: 15948878 [PubMed - indexed for MEDLINE]


A population based study of reporting patterns and characteristics of men who abuse their female partners.

Peek-Asa C, Zwerling C, Young T, Stromquist AM, Burmeister LF, Merchant JA.

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OBJECTIVE: This study estimates the prevalence of male abusive behavior reported by men and their female partners and identifies characteristics of abusive men.
DESIGN: Baseline survey from a population based cohort study of general health.
SETTING: A rural county in Iowa, USA. SUBJECTS: 572 men and their cohabitating female partners. MAIN OUTCOME MEASURES: Male-to-female physical, emotional, and sexual abuse reported by either partner. RESULTS: In this cohort, 13.6% of men had performed at least one act of physical abuse and 34.9% emotional abuse. More than 45% of abusive men reported their own behaviors. Alcohol problems,
antisocial personality characteristics, depressive symptoms, and financial stress were all positively associated with both physical and emotional abuse, but suicidal thoughts were less likely among abusers. CONCLUSION: Identification of common characteristics of abusive men may predict proclivity towards partner violence and barriers to behavior modification.

PMID: 15933412 [PubMed - indexed for MEDLINE]


Sustainability and acceptability of latrine provision in The Gambia.

Simms VM, Makalo P, Bailey RL, Emerson PM.

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All households in 32 villages were provided with improved pit latrines as part of a trachoma control programme in a rural part of The Gambia. Latrine provision was externally driven and was not in response to a request from the communities involved. Materials were provided for free and labour was paid for. To assess durability and acceptability we conducted a follow-up study 25-47 months after construction. Before the intervention only 32% of households in these villages had access to any type of latrine; at follow-up this had risen to 95%. On visual inspection 585/666 latrines (87.3%) were usable and 510 (87.2% of those usable) were currently used. During interviews 566/637 latrine owners (89%) said they were either happy or very happy with their latrines, and 620 (97.3%) reported that they would make a new latrine of some kind when the current one was full or
unusable. We interpret these data to suggest that externally driven latrine provision, without additional health education, to an area with poor latrine coverage can result in high, sustainable levels of uptake and generate future demand for sanitation.

PMID: 15927217 [PubMed - indexed for MEDLINE]


Impact of tele-advice on community nurses' knowledge of venous leg ulcer care.

Ameen J, Coll AM, Peters M.

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AIM: This paper reports a study assessing the impact of the provision of expert tele-advice to community nurses in enhancing their knowledge of leg ulcer care.

BACKGROUND: Community nurses have traditionally been responsible for the care of patients with leg ulcers. However, access to expert medical and nursing advice has been restricted to the local hospital environment. The introduction of e-health and telemedicine have created opportunities to provide online and immediate access to wound care expertise from centres of excellence to primary health care staff in managing patients' wounds in their own home. METHOD: A stratified randomized controlled trial was used to examine community nurses' knowledge before and after the provision of expert tele-advice. A knowledge measurement tool comprised of 40 multiple-choice questions was adopted, with correct responses identified by a panel of wound care experts. The questions covered the three themes of dressings, management and physiology, with different
levels of difficulty categorized as easy, medium or difficult. The tool was administered before and after the intervention (12 weeks) to both the experimental and control groups. RESULTS: Statistically significant improvements were observed only for the experimental group in the areas of dressings and management, as well as in the medium level questions. No statistically significant improvement was seen for the easy questions, as there was little room for improvement because of preintervention high scores. For the difficult questions, it was thought that more time would be needed for a more positive outcome. CONCLUSIONS: The results suggest that tele-advice can be of great benefit to community nurses in enhancing their knowledge in the practice of leg ulcer care. This will have significant implications for more efficient use of human resources and cost effectiveness in wound care.

Publication Types:
- Clinical Trial
- Randomized Controlled Trial

PMID: 15926963 [PubMed - indexed for MEDLINE]


Oncospheral peptide-based ELISAs as potential seroepidemiological tools for Taenia solium cysticercosis/neurocysticercosis in Venezuela.


Centro de Investigaciones Biomedicas, Universidad de Carabobo, Maracay, Venezuela.
This study evaluates five synthetic peptides derived from four, potentially protective, Taenia saginata oncosphere molecules for the serodiagnosis of T. solium cysticercosis/neurocysticercosis in three distinct Venezuelan endemic regions. The peptides, all of which have been described previously, are designated HP6-3, Ts45W-1, Ts45W-5, Ts45S-10 and TEG-1. In clinically verified and seropositive hospital cases, combining the results of three of the individual peptide-based ELISAs (HP6-3, Ts45W-1 and Ts45W-5) afforded the best balance between sensitivity (85%) and specificity (83.5%), a significant improvement on the 63.6% specificity obtained with the routinely employed T. solium cyst-fluid-based ELISA. Similarly, in the seropositive Venezuelan endemic zone samples, 89.09% of Amerindians, 77.27% of symptomatic rural subjects and 67.83% of non-symptomatic rural subjects were also classed as seropositive by the combined peptide-based ELISAs. The profile of antibody recognition to individual peptides varied between the different groups of samples examined. The relevance of the above findings for the serology and prognosis of T. solium cysticercosis/neurocysticercosis in hospital- and field-based situations is discussed.

Publication Types:
   Evaluation Studies
   Multicenter Study

PMID: 15916786 [PubMed - indexed for MEDLINE]


Prevalence and risk factors for protozoan and nematode infections among children in an Ecuadorian highland community.

Rinne S, Rodas EJ, Galer-Unti R, Glickman N, Glickman LT.
In order to create a parasite prevention program for Santa Ana, Ecuador, we worked with local physicians to identify the prevalence and risk factors for intestinal parasitic infection among children. Two hundred households were randomly selected and asked to submit three stool samples from a selected child. Information from direct observation and questionnaires was used to determine environmental and behavioral risk factors for parasitic infection. Prevalence of any parasitic infection was 65.6% of the 189 children who submitted fecal samples. Parasitic infections included Entamoeba histolytica/E. dispar (46.6%), Giardia lamblia (18.5%) and Ascaris lumbricoides (20.1%). In a multivariate logistic model, risk factors (P<0.05) for E. histolytica/E. dispar included >1 month since antiparasitic treatment, not adding chlorine to drinking water, children not washing their hands before eating, and having a fewer number of electrical appliances in the home. The risk factor identified for G. lamblia was children not washing their hands before eating. Risk factors for A. lumbricoides included >6 months since antiparasitic treatment and having a fewer number of electrical appliances in the home. This study may have implications for other communities throughout the developing world.

PMID: 15916785 [PubMed - indexed for MEDLINE]


Evaluation of a hepatitis B vaccination program in Chiang Mai, Thailand.
Chiang Mai is a province in northern Thailand that started a vaccination program for hepatitis B virus (HBV) infection in 1989. In this paper, we report the long-term efficacy of this program. Of children aged 4-9 years, 65.7% had a complete course and 3.8% had an incomplete vaccination course. Urban schoolchildren had higher percentage of HB vaccination than rural schoolchildren (89.1% vs 46.9% for the complete course, p < 0.001). The overall prevalence rate of HBsAg in Chiang Mai schoolchildren was 1.2%, with no significant differences between gender (p = 0.496) and school areas (p = 0.477). Anti-HBc antibodies were detected in 6.9% of children. Overall, 26.2% of children had protective levels of anti-HBs antibodies (> 10.0 mlU/ml), and 11.2% had low levels of these antibodies (1.0-9.9 mlU/ml). Compared to previous reports, our results show a lower percentage of anti-HBs antibodies, 33.8% of children age 4 years had protective anti-HBs antibodies, dropping to 18.4% by age 9 years. Among those anti-HBs seropositive, 9.1% were anti-HBc positive, indicating a natural infection with HBV. We found a small number of children, despite adequate immunization, developed HBV infection.
Dreamtime and awakenings: facing realities of remote area Aboriginal health.

Gruen RL, Yee TF.

Menzies School of Health Research, Institute of Advanced Studies, Charles Darwin University, Casuarina, Australia. russell.gruen@menzies.edu.au

It takes humility to walk along the path towards better Aboriginal health.

PMID: 15896185 [PubMed - indexed for MEDLINE]

Failure of a killed Leishmania amazonensis vaccine against American cutaneous leishmaniasis in Colombia.

Velez ID, Gilchrist K, Arbelaez MP, Rojas CA, Puerta JA, Antunes CM, Zicker F, Modabber F.

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We report the results of a double-blind, randomized, placebo-controlled clinical trial of a killed whole-cell Leishmania amazonensis candidate vaccine against American cutaneous leishmaniasis (CL) in Colombia. The trial subjects were 2597 healthy volunteers with negative leishmanin skin test (LST) selected from rural Colombian soldiers who were going to patrol endemic areas. They were randomized to receive either three doses of vaccine (n=1295) or placebo (n=1302) given at 20-day intervals. An active and passive case detection system was established to
follow-up volunteers for 1 year after vaccination. Safety and efficacy of the vaccine were determined by comparing local and systemic adverse reactions after each dose and the incidence of parasitologically confirmed CL. In the vaccine and placebo groups 101 (7.7%) and 88 (6.8%) volunteers developed CL respectively. The vaccine was shown to be safe but offered no protection against CL caused by L. panamensis in the proposed vaccination schedule.

Publication Types:
Clinical Trial
Clinical Trial, Phase III
Multicenter Study
Randomized Controlled Trial

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Effect of depleted uranium weapons used in the Balkan war on the incidence of cervical intraepithelial neoplasia (CIN) and invasive cancer of the cervix in Greece.


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OBJECTIVE: To compare the incidence rates of CIN and invasive cancer of the cervix in two district areas near the borders with the former Yugoslavia and an urban area away from these borders three years before and three years after the bombings in this country. MATERIAL: Two peripheral hospitals (in Kilkis and Serres) which are near the border with the former Yugoslavia and one University
hospital (Hippocratio hospital of Thessaloniki) in a rural area away from the borders, where routine Papanicolaou smear tests for screening of CIN and invasive cancer of the cervix are performed in the general female population. METHODS: Hospital records were searched for abnormal smear test results. Incidence rates of CIN and invasive cancer of the cervix three years before (1997-1999) and three years after (2000-2002) the bombings were calculated and compared in the three different settings. The relation between the mean age of the first occurrence of an abnormal smear test was also examined. The results were examined using the chi-square test. RESULTS: The incidence of CIN in the three-year period 1997-1999 was 0.68% and 0.9% for the two district hospitals of Kilkis and Serres, respectively. These figures rose to 1.11% and 1.13% in the three-year period 2000-2002 for the two district hospitals. The incidence of CIN in the three-year period 1997-1999 was 1.06% for the Hippokrateion University Hospital of Thessaloniki and 0.88% for the three-year period 2000-2002. There has been a small but not statistically significant increase in the incidence rates of CIN in the two district areas near the borders with the former Yugoslavia over the last few years (p = 0.355 for Kilkis and p = 0.472 for Serres), compared with the small but statistically significant decrease in the incidence of CIN in the urban area of Thessaloniki (p = 0.0275). The rates of invasive cancer of the cervix diagnosed from the routine smear tests were too small to make any conclusions. CONCLUSION: The increase in the incidence of precancerous lesions of the cervix in areas near the borders with the former Yugoslavia during the last three years may be influenced by environmental
Recent research on sexual mixing in populations of sub-Saharan Africa raises the question as to whether STDs can persist in these populations without the presence of a core group. A mathematical model is constructed for the spread of gonorrhea among the Ariaal population of Northern Kenya. A formula for the basic reproduction number $R(0)$ (the expected number of secondary infections caused by a single new infective introduced into a susceptible population) is determined for this population in the absence of a core group. Survey data taken in 2003 on sexual behavior from the Ariaal population are used in the model which is formulated for their age-set system including four subpopulations: single and married, female and male. Parameters derived from the data, and other information from sub-Saharan Africa are used to estimate $R(0)$. Results indicate that, even with the elevating effect of the age-set system, the disease should die out since $R(0) < 1$. Thus, the persistence of gonorrhea in the population must be due to factors not included in the model, for example, a core group of
Modeling the effects of health status and the educational infrastructure on the cognitive development of Tanzanian schoolchildren.

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This paper models the proximate determinants of school attendance and scores on cognitive and educational achievement tests and on school examinations of over 600 schoolchildren from the Control group of a randomized trial in Tanzania, where children in the Intervention group heavily infected with hookworm and schistosomiasis received treatment. The modeling approach used a random effects framework and incorporated the inter-relationships between school attendance and performance on various tests, controlling for children's health status, socioeconomic variables, grade level, and the educational infrastructure. The empirical results showed the importance of variables such as children's height and hemoglobin concentration for the scores, especially on educational achievement tests that are easy to implement in developing countries. Also, teacher experience and work assignments were significant predictors of the scores on educational achievement tests, and there was some evidence of multiplicative effects of children's heights and work assignments on the test scores. Lastly, some comparisons were made for changes in test scores of treated...
Relatively poor, absolutely ill? A study of regional income inequality in Russia and its possible health consequences.

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STUDY OBJECTIVE: To investigate whether the income distribution in a Russian region has a "contextual" effect on individuals' self-rated health, and whether the regional income distributions are related to regional health differences.

METHODS: The Russia longitudinal monitoring survey (RLMS) is a survey (n = 7696) that is representative of the Russian population. With multilevel regressions both individual as well as contextual effects on self-rated health were estimated. MAIN RESULTS: The effect of income inequality is not negative on men's self-rated health as long as the level of inequality is not very great. When inequality levels are high, however, there is a tendency for men's health to be negatively affected. Regional health differences among men are in part explained by regional income differences. On the other hand, women do not seem to be affected in the same way, and individual characteristics like age and
educational level seem to be more important. CONCLUSIONS: It seems that a rise in income inequality has no negative effect on men's self-rated health as long as the level of inequality is not very great. On the other hand, when inequality levels are higher a rise tends to affect men's health negatively. A curvilinear relation between self rated health and income distribution is an interesting hypothesis. It could help to explain the confusing results that arise when you look at countries with a high degree of income inequality (USA) and those with lower income inequality (for example, Japan and New Zealand).

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Original report in:

For the patient. Understanding reasons for obesity is important to weight control programs.

Faber M, Kruger HS.

Publication Types:
   Patient Education Handout

PMID: 15825985 [PubMed - indexed for MEDLINE]


Summary for patients in:

Dietary intake, perceptions regarding body weight, and attitudes toward weight control of normal weight, overweight, and obese Black females in a rural village in South Africa.

Faber M, Kruger HS.
OBJECTIVES: To determine dietary intake and attitude toward weight control of normal weight, overweight, and obese Black women. DESIGN: Cross-sectional survey. SETTING: Rural village in KwaZulu province, South Africa. PARTICIPANTS: A convenience sample (N=187) of 25- to 55-year-old women, of whom 28.9% (N=54) were of normal weight, 41.2% (N=77) were overweight, and 29.9% (N=56) were obese. MAIN OUTCOME MEASURES: Dietary intake, attitude toward weight control, perceived causes of overweight, perceived health risks, and self-reported health status. RESULTS: Dietary intake did not differ among the three groups. Overweight and obese women did not view weight control differently than women of normal weight. Most women were unconcerned about their weight. Only 2% of overweight and 30% of obese women thought they were too fat. Most women (96%) agreed that obesity was caused by biological disorders, while 39% and 9% agreed that it was caused by poor eating habits and eating too much food, respectively. Most women did not recognize the relationship between food consumed and degenerative diseases. Compared to normal-weight and overweight women, obese women had a significantly higher prevalence of self-reported high blood pressure and suffered more from back pain. CONCLUSIONS: Most of these rural women were unconcerned about their weight and most overweight and obese women did not want to lose weight. The acceptance of overweight and obesity can hinder the effectiveness of weight control programs. A special attempt should be made to target such programs to rural woman.
Metabolic syndrome in a multiethnic population in rural Hawaii.

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OBJECTIVE: The National Cholesterol Education Program Adult Treatment Panel III diagnostic criteria for metabolic syndrome (MS) provide a standard for comparing various populations. Using these criteria, the Third National Health and Nutrition Examination Survey reported an overall US prevalence of 21.8%. With these same criteria, we estimated the prevalence of MS among a multiethnic population in rural Hawaii. DESIGN: These data are from a cross-sectional survey from 1997-2000. SETTING: The survey was conducted in the rural community of North Kohala. PARTICIPANTS: More than 1,450 adult residents from five ethnic categories were included: Caucasian, Japanese, Filipino, Hawaiian/part-Hawaiian, Other/mixed non-Hawaiian. Ethnic ancestry was determined by self-report. Ethnic differences were compared by using logistic regression. MAIN OUTCOMES: Blood pressure, height, weight, and waist circumference, fasting and two-hour post-oral glucose challenge plasma was obtained for lipid and glucose determinations. RESULTS: Overall prevalence was 33.4%. Prevalence was significantly higher among all ethnic groups when compared to Caucasians. Despite significant differences in the prevalence of overweight and abdominal obesity, the prevalence of MS was similar in all non-Caucasian ethnic groups.
Filipinos had the highest adjusted odds for prevalent MS (prevalence OR=4.2; 95% CI=2.4-7.3). CONCLUSION: Metabolic syndrome (MS) prevalence was high in Asian ethnic groups previously reported to have low cardiovascular disease (CVD) mortality. These findings suggest either a differential effect of CVD risk factors on mortality among some ethnic groups, or more likely, that future mortality rates will increase among those ethnic groups that currently enjoy low mortality rates.

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Prevalence and correlates of depression in late life: a population based study from a rural Greek town.

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BACKGROUND: Depression in late life is common and has serious consequences on function, medical co-morbidity, quality of life, and use of medical services.

OBJECTIVE: To estimate the age- and gender-specific prevalence of depression among people over 60 years of age, and to examine correlates of depression, in particular the relationship between depression and cognitive impairment. METHOD: From a total of 965 inhabitants, aged over 60 years, in Velestino, a rural town in central Greece, 608 were accessible and constituted the target population. During a five-month period in 2000, a trained health visitor interviewed all
study participants. The interview covered socio-demographic characteristics, medical history, and administration of the 15-question Geriatric Depression Scale (GDS-15) and the Mini Mental Scale Examination instrument (MMSE). RESULTS: The prevalence of mild or more severe depression (GDS> or =7) was 27%, while the prevalence of moderate to severe depression (GDS> or =11) was 12%. Increasing age, female gender, lower education, and being currently unmarried were associated with higher risk of depression in univariate regression models, but these associations disappeared after controlling for cognitive function, except for the association with marital status. Cognitive impairment was strongly associated with increased risk for depression. The co-morbid presence of digestive, neurological and heart conditions was also associated with increased risk for depression, while cancer was not. CONCLUSION: In a rural Greek area, the prevalence of depression in late life is high. Depression was more common among unmarried individuals, those with significant cognitive impairment, and in association with specific medical conditions. Copyright 2005 John Wiley & Sons, Ltd.

PMID: 15799076 [PubMed - indexed for MEDLINE]


[Nursing care in Benin/West Africa]

[Article in German]

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PMID: 15712708 [PubMed - indexed for MEDLINE]
BACKGROUND: Malnutrition in children can be a consequence of unfavourable socioeconomic conditions. However, some families maintain adequate nutritional status in their children despite living in poverty. The aim of this study was to ascertain whether family-related factors are determinants of stunting in young Mexican children living in extreme poverty, and whether these factors differ between rural or urban contexts.

METHODS: A case-control study was conducted in one rural and one urban extreme poverty level areas in Mexico. Cases comprised stunted children aged between 6 and 23 months. Controls were well-nourished children. Independent variables were defined in five dimensions: family characteristics; family income; household allocation of resources and family organisation; social networks; and child health care. Information was collected from 108 cases and 139 controls in the rural area and from 198 cases and 211 controls in the urban area. Statistical analysis was carried out separately for each area; unconditional multiple logistic regression analyses were performed to obtain the best explanatory model for stunting.

RESULTS: In the rural area, a
greater risk of stunting was associated with father's occupation as farmer and the presence of family networks for child care. The greatest protective effect was found in children cared for exclusively by their mothers. In the urban area, risk factors for stunting were father with unstable job, presence of small social networks, low rate of attendance to the Well Child Program activities, breast-feeding longer than six months, and two variables within the family characteristics dimension (longer duration of parents' union and migration from rural to urban area). CONCLUSIONS: This study suggests the influence of the family on the nutritional status of children under two years of age living in extreme poverty areas. Factors associated with stunting were different in rural and urban communities. Therefore, developing and implementing health programs to tackle malnutrition should take into account such differences that are consequence of the social, economic, and cultural contexts in which the family lives.

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Agricultural chemical exposures and birth defects in the Eastern Cape Province, South Africa: a case-control study.

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BACKGROUND: South Africa is one of the major users of pesticides on the African continent. The Eastern Cape is the second largest province in South Africa.
There has been growing concern about the occurrence of certain birth defects which seemed to have increased in the past few years. In this paper we investigate associations between exposure to agricultural chemicals and certain birth defects. Few such studies have been undertaken in the developing world previously.

METHODS: Between September 2000 and March 2001 a case–control study was conducted among rural women in the area of the Eastern Cape to investigate the association between women's exposure to pesticides and the occurrence of birth defects. Information on birth defects was obtained from the register of the Paediatrics Department at the Cecilia Makiwane Hospital in Mdantsane, one of the largest referral hospitals in the province. The cases were children who were diagnosed with selected birth defects. The controls were children born in the same areas as the cases. Exposure information on the mothers was obtained by interview concerning their activities in gardens and fields. Data were analysed using conditional logistic regression.

RESULTS: A total of 89 case mothers and 178 control mothers was interviewed. Babies with birth defects were seven times more likely to be born to women exposed to chemicals used in gardens and fields compared to no reported exposure (Odds Ratio 7.18, 95% CI 3.99, 13.25); and were almost twice as likely to be born to women who were involved in dipping livestock used to prevent ticks (OR 1.92, 95% CI 1.15, 3.14). They were also 6.5 times more likely to be born to women who were using plastic containers for fetching water (OR 6.5, 95% CI 2.2, 27.9).

Some of these containers had previously contained pesticides (OR 1.87, 95% CI 1.06, 3.31). CONCLUSIONS: These findings suggest a link between exposure to
pesticides and certain birth defects among the children of rural South African women who work on the land. Education programmes for women alerting them to the dangers to their babies from the use of pesticides and alternative farming methods and elimination of the reuse of pesticide containers are indicated as preventive measures.

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