



# MIRT 2001 ABSTRACTS

## **KNOWLEDGE AND FEARS CONCERNING THE PAPANICOLAOU TEST AND CERVICAL CANCER IN PERUVIAN WOMEN**

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This study examines the levels of Papanicolaou (Pap) test utilization and the levels of knowledge, fear or anxiety related to the Papanicolaou test and cervical cancer in a population of low socioeconomic status women in Motupe, Peru. A simple random sample of all households within the community was conducted. A survey was administered to 300 women between the ages of 18-50 years. From our survey we found that: (1) Good overall Pap and cervical cancer knowledge was related to higher levels of education, having more pregnancies, and having more Paps. (2) An increase in fear/anxiety levels with regard to the Pap was associated with decreasing Pap and cervical cancer knowledge. (3) A large proportion of women, 43%, reported fear associated with having a Pap test conducted at their local health establishment. (4) Although most women, 77%, cited a health establishment as their primary source for Pap and cervical cancer information, only 48% of women reported accurate knowledge regarding the purpose of the Pap test. A community-based intervention program should target women exhibiting the lowest utilization patterns and who are in the lower educational strata. Promotoras, lay health educators, would serve as key catalysts to such programs because of their accessibility to those who under-utilize women's health services.

## **THE IMPORTANCE OF SOCIAL FACTORS IN ASSESSING MORBIDITY AMONG HEAD OF HOUSEHOLDS IN PEDRO MONCAYO COUNTY, ECUADOR**

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We studied the prevalence of morbidity among heads of households (HOH) in Pedro Moncayo County (PMC), Ecuador. Using a cross-sectional survey design, we selected a random sample of 473 households from the five parishes in PMC for the study period, July 15-July 22, 2001. Selected HOH were interviewed for 20-30 minutes using a standardized questionnaire and were asked to provide basic socioeconomic, demographic, and behavioral data. Independent variables of interest included: marital status, educational attainment, household income, and alcohol and tobacco use among HOH. Dependent variables were health indicators of male and female HOH. Of 473 selected households, 61 (13%) were headed by women. 26% of HOH reported having an illness within 3 months of interview. 33% of female HOH and 25% of male HOH reported having an illness within this 90 day period. Single female HOH were more likely than married female HOH to report having an illness (43% vs. 7%.) Marital status was not strongly associated with morbidity among male HOH. Female HOH were more than twice as likely to report having no formal education (23% vs. 10%) than male HOH. Household incomes were lower for those headed by women compared to those headed by men. Male HOH were much more likely to smoke (34% vs. 0%) and to consume alcohol (64.6% vs. 22.9%) compared with female HOH. We noted a gender disparity in the prevalence of morbidity and in household income. Overall, single HOH have a higher risk of morbidity, lower educational status and lower income levels. Importantly, the health disparity was more pronounced for unmarried HOH regardless of gender. Lower income levels among female HOH was largely attributed to the fact that women were far less likely than men to have received any formal education. Although men have a much higher prevalence of tobacco and alcohol use, other social factors have a much stronger impact on morbidity rates. Programs that support the health of families with female HOH are needed.

**A COMPARATIVE STUDY OF GROWTH AND NUTRITIONAL STATUS  
AMONG CHILDREN THAT WORK AND CHILDREN THAT DO NOT WORK,  
PEDRO MONCAYO COUNTY, ECUADOR**

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Pedro Moncayo County (PMC) has been ranked one of the poorest counties in Ecuador and increasingly residents of PMC have pressed their younger members into the workforce. In 1990, the national Ecuadorian census registered 482,459 workers between the ages of 8 and 19 years. The purpose of our study was to identify factors that influence the growth and nutritional status of children 0 to 15 years of age and to assess the extent to which child labor, family household income, and educational level for the head of household influenced the nutritional status among these children. Data were collected using a survey with 473 randomly selected families. Of the 1,120 children surveyed, 72.7% had a body mass index (BMI) that was below the American Institute for Cancer Research standard. Infants were disproportionately (48.9%) diagnosed as suffering from growth retardation. Approximately 17% of them were found to be chronically malnourished; and 1.3% of infants were found to have acute malnutrition. Importantly, 5.0% of infants were found to have global malnutrition, defined as having a body weight that is at least 3 standard deviations below the population mean. In PMC, 64.7% of the population has a low socioeconomic index. Out of the children living in the homes of the heads of household who reported having no educational instruction, 86.8% were undergrown. A majority of children who worked (54.9%) were found to have sub-optimal growth. Although the Ecuadorian legal limit of 30 hours of labor per week is specified, we found that in PMC, 21% of children worked considerably over that limit. Our study indicates that the majority of the children 0 to 15 years of age in PMC are malnourished; and that participation in the workforce and educational level of the head of household are all determinants of child nutritional status. Immediate action and improvement of public health programs are needed to offset the high prevalence of child labor and malnutrition in PMC, Ecuador.

## **ASSESSMENTS OF REPRODUCTIVE HEALTH AMONG WOMEN 15-49 YEARS OF AGE IN PEDRO MONCAYO COUNTY, ECUADOR**

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The purpose of this study was to determine the state of reproductive health among women of reproductive age between 15 and 49 years in Pedro Moncayo County (PMC), Ecuador and communicate this information to the residents of the county. This study was part of a larger population based survey designed to study demographic patterns pertaining to residents of Pedro Moncayo County. After randomly selecting 500 households within the county, we invited selected residents to participate in a 30 - 60 minute in-person interview. Using a standardized questionnaire, participants were asked to provide information on monthly income, civil status, educational level, contraception use and Pap smear exams. We used SPSS 7.5 software to perform all statistical analyses. Approximately 24% of the population surveyed were women of reproductive age. Overall, 29.8% of reproductive age women reported using contraceptives, which is much lower than the reported use of 65.8% for Ecuador as a whole. Marital status was an important determinant of contraceptive use among female residents of PMC. The three most frequently used forms of contraception among teen-aged women in PMC are oral contraceptives, intrauterine devices and tubal ligation. The teen pregnancy rate was 21.1% for residents of PMC, and this rate was comparable to the Ecuadorian national average rate of 20.3%. Approximately 79% of women participating in this survey reported not having received a Pap smear exam within the last year. Importantly women in stable relationships (married or living with a partner) were more than twice as likely to have received an annual Pap smear exam as compared with women not in stable relationships. Additional studies are needed to identify social, political, cultural and economic factors that contribute to the under-utilization of reproductive health services in Pedro Moncayo County.

## **AN ASSESSMENT OF THE OFFER AND DEMAND OF HEALTH SERVICES IN PEDRO MONCAYO COUNTY, ECUADOR**

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Within health systems in developing countries, limited access and poor resources are of significant concern. In 1998, 49% of deaths in Pedro Moncayo County (PMC), Ecuador were attributed to unknown causes, thus highlighting the profound lack of health information needed to identify and track significant determinants of morbidity and mortality among residents of PMC. We investigated the general health conditions of PMC in an effort to assess the offer and demand of health services. 470 families were surveyed within rural and urban communities of PMC. The survey instrument assessed the offer and demand of health services, morbidity, mortality, and factors related to the growth of children. Retrospective morbidity (based on the last 90 days), type and utilization of health service organizations (HSO) in relation to family health, the mother infant dyad and disability were key variables of interest. For the purposes of this analysis, health statistics are reported for each parish (village) in PMC. The highest frequencies of illness (based on retrospective morbidity) were found in Tocachi (35.7%) and Malchingui (27.0%). The most frequently used HSO in relation to family health was within the private sector for Tupigachi (31.8%), Tabacundo (36.20%) and La Esperanza (30.30%). The most frequently used HSO's for Tocachi and Malchingui were at the local subcenter with rates of 25% and 47.10% respectively. The most frequently used HSO in relation to the mother-infant dyad for prenatal care for Malchingui and Tocachi were at the local subcenter at rates of 70.60% and 55.60% respectively. Most women sought prenatal care within formal HSO's but chose to give birth at home with the aid of a midwife, suggesting that this may be more of a cultural issue rather than the offer and demand of HSO's. The most critical lack of HSO's was found among the disabled. Although medical services were offered at a subsidized rate, even the minimum cost of services (\$0.50) may be prohibitive for some families.

**AN EVALUATION OF THE GROWTH AND NUTRITIONAL STATUS OF  
CHILDREN (0 TO 15 YEARS OF AGE) AND WATER QUALITY ASSESSMENT  
IN PEDRO MONCAYO COUNTY, ECUADOR**

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The specific aims of this project were to (1) determine the percentage of children (age less than 15 years) who are underweight in relation to height, and age; (2) to determine the magnitude of drinking water contamination in a population survey conducted in Pedro Moncayo County, Ecuador. A health survey was constructed and administered to 473 randomly selected families in the parishes of Pedro Moncayo (Malchingui, Tochachi, La Esperanza, Tabacundo, and Tupigachi.) Surveys were administered to selected homes by a team of interviewers. The survey assessed families' socioeconomic status, factors related to child growth, morbidity and mortality. A total of 1,120 children comprised the study population for this research. Approximately 72.7% of the children in this study population were found to be underweight. Underweight children were more likely to come from households where parents reported having only a primary school education. Analysis of household drinking water revealed that 13 of 25 samples (52%) were contaminated with coliforms. Nine of the samples (36%) had coliform levels that were sufficiently high to deem them unsuitable for human consumption. In this study, we did not see an association between child weight and exposure to contaminated water sources. However, our results suggest that there is a need to commit resources toward improving the water sanitation systems in PMC. Further, the high prevalence of underweight children suggests that public health efforts that include health education and nutritional interventions are needed.

## **DIETARY INTAKE AND RISK OF LOW BIRTH WEIGHT IN ZIMBABWE**

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We studied the risk of delivering a low birth weight (LBW) infant in relation to maternal antepartum dietary intake patterns. Study subjects were 500 pregnant women from Harare, Zimbabwe and were recruited at Parirenyatwa Hospital from April '98- March '99. A research nurse interviewed participants and collected information concerning maternal medical and reproductive history. A modified food frequency questionnaire was used to elicit information pertaining to maternal regular dietary intake patterns during pregnancy. Women reported the frequency and serving size of food items consumed daily during the pregnancy. Nutrient values were calculated using food composition tables for Zimbabwe and the Southern African Region. We focused on maternal daily consumption of total energy (kilocalories or kcal) and total protein. The mean daily energy intake was 3225 kcal. Approximately 24% (N=118) of women did not meet the World Health Organization (WHO) recommendation daily allowance (RDA) of 2500 kcal for energy intake for pregnant women in developing countries. The mean daily protein intake was 115g, more than twice the WHO RDA of 55g. Only 9.6% (N=48) did not meet the RDA for total protein. 70 newborns (14.1%) weighed less than 2500g (ie. were low birth weight (LBW)). LBW infants were more likely to have mothers with energy intakes lower than the RDA during their pregnancies than mothers with normal weight infants (27.7% vs. 23.1%). LBW infants were more likely to have mothers with protein intakes lower than the RDA (15.7% vs. 11.2%). Inadequate protein intake was associated with a slight increased risk of delivering a LBW infant ((OR)= 1.24, 95% (CI), 0.67-2.27; p=0.464). Inadequate energy consumption during pregnancy was associated with an almost doubling in risk of LBW ((OR)=1.97, 95% (CI), 0.89-4.28, p=0.063). These data suggest that protein and calorie intake deficiencies are prevalent among poor urban women in Zimbabwe; and that these deficiencies may be associated with adverse pregnancy outcomes.

## **ANALYSIS OF A NEWSPAPER'S COVERAGE OF THE HIV/AIDS EPIDEMIC IN ZIMBABWE**

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We analyzed the Herald, a leading Zimbabwean newspaper, focusing on their coverage of the HIV/AIDS epidemic in Zimbabwe. We reviewed the headlines, content, themes and style of HIV/AIDS related articles published between 1997 and 2000. Each articles' text was reviewed to determine whether the print media's coverage of HIV/AIDS may have contributed to a reduction or enhancement of social stigma attached to HIV/AIDS. We used information from a newspaper library at the Southern Africa AIDS Information Dissemination Service (SAfAIDS) office located in Harare. From this collection, Herald articles, excluding editorials and letters to the editor, were selected for the study period. Published articles predominantly addressed the impact of HIV/AIDS on the country's social and political developments; and on the health of children. By 1998 publication of articles featuring personal portrayals of HIV/AIDS patients became scarce. We noted several occasions where authors used improper or sensationalist language. Additionally, there was a tendency for research-oriented articles to have a non-local focus, while articles with a more local focus tended to address issues of coping with an HIV/AIDS diagnosis and caring for affected family members. Themes of prevention and awareness were common, though there was a clear emphasis on vaccines as a preventive intervention, with relatively little emphasis on behavioral modification and social changes. Overall, we found that the Herald's coverage of the HIV/AIDS epidemic in Zimbabwe to be laudable. We did note, however, that there were clear gaps in coverage, with relatively little emphasis on the behavioral determinants of risk for infection. Occasional identification of misleading or inappropriate language in published articles was noted and suggests that future studies are needed to continue gauging the media's coverage of HIV/AIDS. Our findings reinforce the need for formalized training for journalists, particularly those working in developing countries hardest hit by the HIV/AIDS epidemic.