Abstracts Presented on the Fourth Annual Conference of the Ethiopian Public Health Association Held on December 8-10, 1993 at the Medical Faculty Auditorium, Tikur Anbessa Hospital, Addis Ababa

#### Assessment of unmet needs and the demand for family planning in Addis Ababa.

Tekabe Ayalew, BA; Amare Dejene, MSc; Yared Mekonnen, BSc. National Research Institute of Health.

A study was conducted to asses Unmet needs for FP in Addis Ababa. The city was categorized, for the Purpose of the study, in to two: inner which is densely Populated and periphery which is relatively sparsely Populated. Five kebeles from each category and hundred households from each kebele were selected randomly. A pretested questionnaire was administered through female enumerators, trained for this purpose. Among the interviewed (1(KX) women) the total number with unmet needs were 56.9% (559 women) of which 52.3% (523 women) Want to limit and 4.6% (46 women) Want to space their birth. The unmet need for limiting is higher at older age than at younger; in the case of spacing it is the vise versa. Unmet need was higher among the illiterate than among those with elementary, high school education and above. More than half of the women (56.9%) were with Unmet needs, while the proportion of women who are currently using any type of contraceptive (CP) method was found to be 21.6%. This means that if the unmet need was to be satisfied, the prevalence may rise up to 78% -the total demand for family planning. A logistic and log linear analysis (using GLIM and SPSS/PC) was done in order to control confounders. And it was found that age, knowledge about CP and level of education are the most important factors affecting Unmet need for FP and there was no significant interactive effect.

### KAP study on natural family planning method and service providers among service providers at primary level of health care

Mathewos Wakbulcho, MD,MPH Family Health Department, Ministry of Health

A health institute based cross sectional study was conducted between May and June, 1993 to assess knowledge, attitudes, practice & effectiveness of Natural Family Planning Methods among 260 randomly selected service providers (94 nurses and 166 health assistants) working in various Health facilities. The study indicated that, 75% of the nurses and 45% of the health assistants know at least one method (Breast feeding) of Natural Family Planning; other less known were rhythm, & coitus interptus methods. None of the respondents mentioned symptothermal methods of Natural Family Planning. Forty five percent of the nurses and 29% of the health assistants have good attitudes towards NIP methods and "TJ/V (x; "'V7tl never praCtlCea respectively. Current user rate of Natural Family Planning is only 2% whereas, all respondents are aware of modem contraceptive, there is a high never user rate (77% of nurses and 51% of health assistants) and moderate current users rate (55% of nurses and 29% of health assistant). Forty eight percent of the nurses and 80% of the health assistants don't know the effectiveness or reliability of Natural Family Planning in prevention of pregnancy. In-depth study is recommended to initiate National Natural

Family Planning program to encourage coital & behavioural related FP service provision for a wide method mix. Further, factors related to Natural FP are discussed.

### Health Institution Versus Community-Based Contraception Distribution: Does Payment for Modern Contraceptive Influence utilization?

#### Alemu Mekonnen, MD, Dennis Carlson, MD

Department of Community Health, Faculty of Medicine, Addis Ababa University

A randomized field trial involving two modes of contraceptive distribution, clinical and community-based, which were again divided into "free" and "paying" subgroups was carried out in four rural service cooperatives (S.c.)( consisting of 4-6 Farmers Associations) of Sululta, Oromia Region, from Octl92 -Feb/93. The baseline survey revealed no important differences in potential confounders among the selected 8 Farmers Associations (FA) ( 2 FAs from each S.C.). Of the total 110 clients, 75 (68.2%) were females while 35(31.8%) were males. After 17 weeks of program intervention the contraceptive prevalence rate was 5.8% at Community Based Distribution (CBD), while 2.6% at clinics. There was a significant difference (p= .043) between paying and free groups in continuation rates. The main reasons for not starting oral pills was lack of knowledge while those in favour of starting were to prevent pregnancy, already having enough children and the need for birth spacing. The majority (80.0%) of male clients started using condoms to prevent STDs and AIDs. The high attendance rate of women at CBD sites may be due to easier accessibility of many CBD programs sites and the fact that these programmes reach a large majority of the rural population. The increasing trend of continuation, which may be due to value given to paid items, might also help broaden the acceptance of family planning services.

#### Fertility preferences among currently married women in Addis Ababa

Yared Mekonnen; BSc, Tekabe Ayalew; BA, Amare Dejene; BSc, MSc National Research Institute of Health

In this study fertility rate of married women, desire for additional children, preferred birth intervals and ideal family size were addressed. Of 1000 women who were included in the survey, 699 (69.9%) were in union and the analyses were made on this group. The Marital Fertility Rate (MFR), Fertility Rate of Spacers (FS) and Fertility Rate of Limiters (FL) were found to be 4955,2739 and 5273 births per 100 women, respectively. About 53% of the married women want to stop child bearing and 14% want to delay for at least two years suggesting that 67% of the women are potential contraceptive users either for the purpose of spacing or limiting birth. The Contraceptive Prevalence Rate of spacers (45.9%) is higher than that of limiters (34.4%) and it is 31.6% for the population of married women. These women were asked what they think would be the ideal family size and about 40% said four children although some said family size is determined by God.

# Contraceptive, demographic and sexual behaviours or high school students in Jimma, southwestern

#### Ethiopia.

Tesfaye Shiferaw, BSc, MPH, DrPH<sup>1</sup> Sileshy Demaissie, BSc, Messeret Shiferaw, BSc, MD2 <sup>1</sup>Department of Community Health, Jimma Institute of Health Sciences, 2Department of Training, Ministry of Health

There is scarce information about the levels of sexuality and fertility among students in Ethiopia. The purpose of this study was to explore the pattern of contraceptive, demographic and sexual behaviours of high school students in Jimma, southwestern Ethiopia. A total of 535 randomly selected subjects responded to self administered questionnaires. Over 65% of students reported to have knowledge on modern contraceptive methods while only 20% currently make use. Nearly 40% of the students reported unprotected sexual encounters during the past four weeks with one or more partners. Males showed a significantly higher preponderance of sexual practice and earlier encounter. The mean desired family sizes were 6.1 and 6.4 for males and females respectively which was not statistically significant (P > 0.05). The mean desired number of sons (3.01 and 3.8) by males and females respectively was found to be statistically significant (P < 0.05). The mean desired number of daughters (3.2 and 3.9) by males and females was found to be statistically significant (P < 0.05). The gap between contraceptive knowledge and actual use; and the prevalence of high-risk sexual encounters seemed high. Moreover, students awareness on population issues seemed low. School-based surveys that periodically measure the prevalence of priority health-risk behaviours among students at national, regional or zonal levels are suggested in order to plan interventions.

#### Drug use and purchasing determinants in an Addis Ababa district

Alemeyehu Belayneh, MD, David Zakus, PhD Department of Community Health, Faculty of Medicine, Addis Ababa University

This study assesses the overall drug use pattern (with and without prescription) in an Addis Ababa community , potential drug sources, factors associated with increased drug consumption and purchasing following an illness episode. It employed a cross-sectional community-based survey of a sample of 1185 households, selected randomly from the source population of all 23 kebeles of the previous Yeka District of Addis Ababa. A structured questionnaire was developed, pretested and implemented for the purpose of the survey. The study showed that 85.2 % of the studied sample population took some kind of drug (prescribed or non-prescribed) and 14.8% did nothing following an illness during the four week study period. Drug users and nonusers were compared with respect to demographic and socio-economic variables. The use was higher among children less than 5 years of age, in high income groups, and among those with higher average health care expenditure per episode. There was no sex difference observed in relation to drug taking with or without prescription. 86.9% and 84.1% of males and females, respectively, took drugs. Of these drug users, 95.5% took them with prescription and 4.5% without. It is believed that the high use rate of drug taking and specifically drugs with prescription following an illness in the district might be explained with the burden of morbidity in the district.

# Assessment or the user characteristics or the out patient service or Jimma hospital. Ferew Lemma, MD, MPH, Abebe G!Mariam BSc, MPH and Mebrat Kebede

Department of Community Health, Jimma Institute of Health Sciences

A cross- sectional survey to assess the users characteristics of the out patient service (OPD) of Jimma Hospital (South-West Ethiopia) was undertaken between 1-15 August 1993. All patients (n = 1256) who reported to OPD services were interviewed using a structured questionnaire to examine socio-demographic factors, reasons for hospital visit and other variables. Data was

collected by 10 senior medical students, who were superyised by investigators. Among 1256 OPD service consumers 76.6% were from Jimma. 9.8% out of Jimma but with in Jimma Zone. 13.6% out side Jimma Zone 12.7% patients were referred from other health institutions 52.9% are females, 63.5% were married, 7.3% have a family size of > 10. The majority (58.7%) are christians by religion. 36% are free patients. Occupationally 32.7% are students, 8.4% farmers and 40.5% are either children or others without occupation. Travelling distance of patient to hospital was determined: 74.5% have travelled less than one hour, 2.6% travelled 712 hours, 11.8% sought medical help 1-7 weeks and 12 weeks respectively. 69.3% and 7.8% had received treatment from health institutions, and other sources respectively prior to arrival to the hospital .

### Evaluation or district health management teams in Addis Ababa Mahdi Bekri, M.D, David Z8kus,

PhD

Department of Community Health, Faculty of Medicine, Addis Ababa University

This study, a cross-sectional census survey with a case control analysis, assesses various determinants of functionality of District Health Management Teams (DHMTs) in Addis Ababa. The questionnaire survey component was carried out among 16 DHMTs from December, 1992 to February, 1993. The objectives of the study were to describe the work of the various heal~ teams and classify them as functional or nonfunctional. The findings revealed that eight of the DHMTs were performing 60% or more of the ctivities mentioned in their job description, this being the cut-<>ff point for determining functionality. The criterion for functionality was then further strengthened, limiting functionality to those teams who performed 64 % of their required activities, leaving seven in this category .Comparing these with the five nonfunctional teams 56% of their required activities) various associations between structural team characteristics and internal team interaction processes were found. DHMT functionality was positively associated with the academic qualifications of the team leader (OR= 14.1 with 95% CI 14-259), with the presence of job descriptions for the team members (OR=4.0 with 95% CI 3.8-57.3), with the size of the team (OR= 10 with 95% CI 9.98-128.82), and with the presence of research activities (OR=5 with 95% CI4.1-106.4). Among the team interaction process that were found to be important to functionality (at P < 0.05) were the clarity of objectives, knowledge of each others roles, analysis of experience, good communications, a feeling of belonging, and respect for differences. These findings demonstrate the importance of structural and interaction processes for the appropriate development of health management teams and the further strengthening of the district health care system.

### Utilization of traditional medicine among inpatients in Jimma hospital Abebe G.Mariam, BSc., MPH,

Frew Lemma, MD., MPH, Yilikal Alemu Department of Community Health, Jimma Institute of Health Sciences

A cross-sectional survey to determine the utilization of Traditional Medicine (I'M) and its relation with cultural, educational and socio-economic aspects was carried out in july 1992 in surgical and medical inpatients in Jimma Hospital (South -west Ethiopia). All patients were studied using a pretested and structured questionnaire. Data was collected by 3 senior medical student, who were supervised by investigators. A total of 113 patients in the age group 14 -18 were identified by the survey. The majority (69%) are males, 67% were from rural areas, 57.5% were muslim by religion,

64.6% are illiterate, 67.2% are either unemployed or farmers by occupation and only 25.7% have an average income of 500 Birr and above. Results indicated that 26.9% of rural and 12.3% of urban admitted patients were found to use TM. 43.3% are in the age group 40 and above, 28.3% illiterates, 25.7% farmers, 4.4% unemployed patients, 22.2% muslims, 15.9% christians and 9.7% of patients with income less that 500 Birr were found to utilize TM. Symptoms for which TM was utilized included 13.6%, 6.8%, 4.5% and 2.5% for Mitch (acute febrile illness), Entil (tonsillitis), and for combination of the above symptoms and others respectively. 52.6% of the TM users received treatment from traditional 1iealers. Easy accessibility was reported to be the main reason to use TM (47.7%). 36.6% reported to have had symptomatic relief after using TM, while only 6.8% said the symptoms were aggravated after the use of TM.18.2% reported to the hospital because of TM failure. 95.6% of the study subjects preferred to use modern medicine in future rather that TM. Based on the findings of the study recommendations are given.

### Knowledge, attitude and practice (KAP) towards harmful traditional practices among high school

#### students in Addis Ababa.

Amare Dejene Haregewoin Cherinet, Fisseha Haile Meskal, Abate Gudunffa and Ayalnesh Mekonnen

National Committee on Harmful Traditional Practices

KAP study on Harmful Traditional Practies (HTP) with special emphasis on female circumcision has been conducted among 1722 students (45.7% male, 54.3% female) in 5 high schools in May 1993 in Addis Ababa. The majority of the respondents, 77.2 % believe that female circumcision is a harmful traditional practices. Mainly the mother decides for a daughter to be circumcised in the family followed by grandmothers and fathers. Most of the student (greater than 85%) support eradication of major harmful traditional practices. 67.9% of the respondents have suggested different means and ways of eradicating female circumcision. Among the study population 40% of the girls are circumcised. The study identifies mothers as the most important target groups to be sensitized during the implementation program. It is also recommended to consider suggestions of the students during the campaign.

#### Management needs of hospitals medical directors

Melake Berhan Dagnew, MD1, David Zakus, PhD2

Hospital management is an important contributor to the success of the entire health system. Major problems exist, though, in the hospital sector which must be dealt with efficiently and effectively by hospital leadership in order to strengthen this contribution. Presently, many involved in this leadership, including the medical directors, administrators and matrons lack the specific health service management training needed in order to carry out their tasks to the best of their ability

<sup>&</sup>lt;sup>1</sup>Department of Community Health Gonder College of Medical Sciences

<sup>&</sup>lt;sup>2</sup>Department of Community Health, Addis Ababa University McGill-Ethiopia Community Health Project

.This research specifically deals with management needs of medical directors and the ways of meeting these needs. Self-administered questionnaires were sent to all hospital medical directors in Ethiopia (72 in all) to obtain information to meet the major objectives of: a) determining the most important management issues facing hospitals and their senior managers in Ethiopia today; and b) gathering sufficient information on hospital services, hospital management issues and the medical directors so as to be able to plan and carry-out future management workshops for senior hospital management. Preliminary data from this research will be available to present to the December EPHA Conference.

#### A cross-sectional study of anthropometric measurements of women in reproductive agegroup attending family planning clinic in Jimma town

Seid Mohammed MD,MPH and Biniam G/Eghziabher Department of Community Health, Jimma Institute of Health Sciences

A cross-sectional study of the anthropometric measurements of 1600 women in the reproductive age group attending family planning clinics in Jimma town was made in June 1993. The data was collected by using a standardized format which includes such key variables as the age, parity, height, weight and mid-ann circumference. It is tabulated and analyzed by hand. According to the findings of this study 60% weighed more than 40 kgs, 37% between 40 and 50 kgs and 3% lower than 40 kgs. 87% have height greater than 140 cms. The body-mass index (BMI) which is the weight-for height index, showed that 11.5% scored below 18.5 which is the cut-off point while the remaining 88.5% scored above 18:5. The mid-Arm-Circumference (MAC) measurement revealed that 3.5% less than 21 cms, 245% between 21-23.5 cms while 72% more than 23.5 cms. Based on the findings the study women have a good nutritional status in general, wiht a promising posibility of having children with better birth weight. We recommend that similar researchers in this area should be conducted in a population groups of different socioeconomic status to have a reliable base-line data on women nutritional status.

# Prevalence or xerophthalmia among children in Jimma Town, south-western Ethiopia Mahedere Shiferaw, MD, Fekadu Ayele, MD, MPH, Chali Jira, BSc, MPH, Fasil Tessema, BSc Jimma Institute of Health Sciences

There is a scarce or no information on the magnitude or distribution of xerophthalmia in Jimma Zone. To document base line information, a cross-sectional study was conducted to determine the prevalence of xerophthalmia among children aged 6-72 months. House to house registration of children aged 6-72 months was done and the required sample size was determined on the basis of 5% prevalence rate. Through eye examination was done by an ophthalmologist and two general practitioners who were informed about the purpose of the study. The WHO criteria was used to grade the magnitude and severity of xerophthalmia. The demographic characteristics and weight of each subject were recorded. Children who were found to have conjectivitis and acute trachoma were treated with appropriate antibiotics.

The result of the study showed that, of the 287 study population 1.2% and 9.1 % had Bitot's spots .A statistically significant association was observed between conjectival xerosis and Protein-Energy- Malnutrition (pEM) (p < 0.05). This survey gives the general epidemiological overview of the magnitude, distribution and pattern of xerophthalmia in the region, specifically in Jimma town. It has indicated that xerophthalmia is a significant public health problem in the study area. The study recommends early detection and cost effective intervention programmes.

Prevalence or xerophthalmia in children six months to six years or age in Agaro town Abebe G/Mariam, BSc, MPH, Ferew Lemma, MD, MPH and Wubushet W/Mikael Department of Community Health, Jimma Institute of Health Sciences

A cross-sectional study to determine the prevalence of xerophthalmia and its relation with age, sex, nutritional status, family income and educational status was undertaken in Agaro town (west of Jimma) in January 1993. 432 children six months to six years of age were selected randomly from 289 house holds in the 9 kebeles of the town. The study was carried using a pre-tested and structured questionnaire. Data was collected through a house-to house visit by 8 experiencd female interviewers who were currently involved in data collection of a cohort study in infant mortality physical examination was done by 4 physicians who were trained in clinical identification of xerophthalmia. All parents interviewed were the head of the household, mother or guardian. 24.5% were illiterate. 86.3% have annual income of less than 700 birr. A total of 236 males and 196 females were studied. According to water low classification 81.5% children were normal. 8.5% were either wasted, stunted or both. 18 (4.2%) were found to have different stages of xerophthalmia. These included 6.9% night blindness (XN), 55.56%. Biot's spots (XIB). A significant association (p<0.05) between nutritional status, family income and the prevalence of xerophthalmia was observed. Finally all children with signs of xerophthalmia and conductivities were given oral vitamin A and tetracyclic eye ointment.

### Prevalence or anaemia in pregnancy in an urban and a rural community or Ethiopia: a preliminary study

Mathewos Wakbulcho, MD,MPH; Abate Gudnuffa BSC, MPH; Bo Moller MD,PHD Family Health Department, Ministry of Health

Health institute based survey was undertaken in December 1992 to determine level of packed Cells Volume {Haematocrit, Hct) among randomly selected 131 anternatla clinic attendants at Gulele MCH clinic (Urban) in Addis Ababa and 111 pregnant women at Ghion Health center (Rural) in Woliso. A blood specimen collected from individual pregnant woman was measured in microhaematocrit unit with a battery operated micro-centrifuges apparatus. The measurement analysis revealed HCt level range of 25 to 48% in the urban and 31 to 46% in the rural with a mean of 36% in both study groups. Whereas, 57 (44%) of the attendants in the urban and 63 (57%) in the rural were found to have Hct level within the range of 24 to 36% cut-{)ff point of world Health Organization standard indicating a high prevalence rate of mild & moderate anaemia. There is a statistically significant difference (.01 < p < .05) in prevalence of anaemia in the study groups; predominantly more worse in rural than urban. Since this is a preliminary study the risk of being anaemic during pregnancy is not explored. However, some of the trends of risk of anaemia by age, parity and stature were discussed. In depth study, concerning determinants of anaemia in pregnancy is recommended.

#### Prevalence or low birth weight in urban areas or south western Ethiopia

Seleshi T/Mariam,MD, Ahmed Ali, MD Department of Community Health, Faculty of Medicine, Addis Ababa University

A cross sectional study of low birth weight (LBW) with a case control analysis was carried out in 30 villages of Jimma zone, South-western Ethiopia with the objectives to determine the prevalence of (LBW), its determinants and to assess the 1)erformance of trained traditional birth attendants (TTBAs) in recording birth weight using simple modified salter spring balances. Exposure variables of interest related to study mothers were collected and birth weight of the new born were recorded by enumerators and 1TBAs. A total of 537 mother-newborn pairs were included in the study revealing an overall LBW rate of 10.6%. The frequency distribution of health unit and home deliveries were nearly equal (47% vs 53%). LBW rate was higher among home deliveries (12.9%) than health unit deliveries (8.0%). Statistically I' significant mean birth weight difference favouring health unit delivered neonates was observed when compared to home delivered neonates (t=2.03, p < 0.05). The present study has demonstrated LBW rate is higher among home deliveries unattended by trained personnel. TBAs can be used as a potential source of birth weight information to the health system. On the basis of the study finding, it is recommended that efforts have to be made to motivate mothers to utilize the maternal and child health (MCH) services to minimize the risk of LBW, and further more regular refresher training should be made available and there should be a periodic supervision so that TBAs are utilized as a potential source of vital event data of their communities.

Blinding malnutrition: a serious threat in a district or Arsi zone Tezera Fisseha, Yonas Taffesse, Wondemu Teka and Jamal Hidar Ethiopian Nutrition Institute A total of 2025 children, aged from 6 months to 6 years were examined for signs of xerophthalmia in 17 villages of four sub-districts of Arsi zone. The over all prevalence of xerophthalmia was 10.9%. The Biot's spots rate was 8.8%. In a chosen village, where the problem of vitamin A deficiency was considered to be high, a prevalence rate as high as 28.3% was recorded. of the total xerophalmis cases 15% had history of measles a month prior to the survey. Anthropometric measurements were made on 1964 of the children. The stunting and wasting level were 53% and 15% respectively. Therapeutic and prophylactic doses of vitamin A capsules were provided to all the subjects accordingly. Although periodic mega dose vitamin, a capsule supplementation, is the ideal short term method for controlling the deficiency, a viable delivery mechanism is still the challenge.

# The use or students' questionnaire in identification or communities at risk or Onchocerciasis in Kera, South-west Ethiopia

Habtamu Argaw, MD, George Olwit, MD Department of Community Health, Faculty of Medicine, Addis Ababa University

A study was conducted to test the application of the so called "indirect questionnaire approach" using key informants, for the assessment of high risk areas for onchocerciasis. The objective was to determine the validity, cost-effectiveness and operational feasibility of questionnaires.

Questionnaires were designed and distributed to six junior high schools via the education officer and administered to 1385 students through their teachers. Validation test was undertaken on 1345 students of the same schools. Using the Spearman rank correlation analysis on the positive response rate on the indictors of onchocerciasis to the parasitological results, all the questions were negatively correlated, due to probably poor perception, immune tolerance and lack of attention to the manifestations in the high risk areas. Report of "nodule" was the only significantly correlated. The use of the educational sector was found to be feasible. The indirect questionnaire approach was seven times less expensive, with comparable time and coverage as the biomedical approach. The study area was found to have high prevalence (15.5%) of microfilarial rate in young teenagers, and the endemic area wider. Further study is recommended to assess the applicability of the approach, in different socio-economic and demographic situations.

**Identification of high risk communities for intestinal Schistosomiasis using questionnaires** Muluken Hailu,B.Scl, Leikhun Jemaneh2,PhD, Derege Kebedel, MD <sup>1</sup>Department of Community Health

and <sup>2</sup>Dept. of Microbiology, Faculty of Medicine, Addis Ababa University

Through the Educational Administration office, a total of 88 schools were screened in Western Gojjam Region using self administrated questionnaires. From 88 recovered questionnaires, based on the defined criteria, only 68 questionnaires were accepted as properly completed. A total of 3580 students were interviewed through their teachers in four weeks time. From 3580 "indirectly" interviewed children, prevalences of 10.4%, 30.6% and 9.0% were found for the three markers; blood in stool, distended belly and schistosomiasis respectively. From 600 children screened parasitologicaly in 10 schools, over all 90 Schistosomiasis mansoni positives were found, yielding an estimated 15% prevalence rate for the region. A higher infection rate was found in males (17.5%) ) than females (12.9%) with an odds ratio of 1.64. A positive Pearson's coefficient of correlation was found between the questionnaire and parasitological approaches in assessing the prevalence of intestinal schistosomiasis in ten schools. A coefficient of correlation of 0.89, 0.69, and 0.45 was found between the prevalence of schistosomiasis, prevalence of blood in the stool, and prevalence of distended belly respectively, and the parasitological screening. The indirect interview approach is not only operationally feasible, it is also four times faster and thirty times less costly than the corresponding biomedical approach. The possible use of the questionnaire approach in the monitoring of s.mansoni infection is discussed.

### Visceral leishmaniasis in Ethiopia. I. Cross-sectional Leishmanin skin test in an endemic locality.

Ahmed Ali, PHD1, Richard William Ashford, PHD<sup>2</sup> and Tesfaye Bulto, MD Institute of Pathobiology and Department of Community Health, Addis Ababa University, and <sup>2</sup>Division

of Biomedical Science, School of Tropical Medicine, Liverpool and ALERT, Addis Ababa

In order to evaluate the immune status of the population against infection with leishmaniasis, a cross-sectionalleishmanin skin test was carried out in southern Ethiopia on a sample population of 730 individuals. The antigen used was L.d. infantum and standard techniques were employed in the administration and interpretation of the test. The study revealed an overall prevalence of 36.4% leishmanin positives, with 50.9% of them being males and 23.2% females. An increase in

leishmanin positivity with age was also noted and that parallels the age specific disease pattern in the study locality. The skin test profile in the study site was found to be typical of an endemic focus of visceral leishmaniasis and suggests an outdoor exposure to infection.

### Visceral leishmaniasis in Ethiopia. II. Annualleishmanin transformation in a population. Is positive

#### leishmanin reaction a life long phenomenon?

Ahmed Ali, PHD, Richard William Ashford, PHD<sup>2</sup> and Tesfaye Bulto MD

Institute of Pathobiology and Department of Community Health, Addis Ababa University , and <sup>2</sup>Division

of Biomedical Science, School of Tropical Medicine, Liverpool and ALERT, Addis Ababa.

Following a cross-sectionalleishmanin skin test, a follow up was undertaken to assess the annual incidence of skin test transformation and to evaluate the status of a positive reaction. The point prevalence of leishmanin positivity in a selected group was found to be 46.8%, whereas the annual incidence ofleishmanin transformation was 14.8%. 62.5% of males and 32.1% of the females contacts of visceral leishmaniasis cases were found to have a significantly higher rate of positive reaction compared with those in house holds with no report of the disease. The implications of the findings are discussed.

#### Clinico-epidemiological survey on Onchocerciasis in two villages, south-western Ethiopia

Asefa Aga, BSC, MPH1, Frew Lemma, MD, MPH1, J.A.G. Whitworth, M.D.2, Aynalem Abraha, M.D.J

<sup>1</sup>School of Medical Laboratory Technology, <sup>1</sup>Department of Community Health, Jimma Institute of Health

Sciences. 2Department of Tropical Medicine and Infectious Diseases, Liverpool School of Tropical

Medicine. <sup>1</sup>Shebe Health Center, Jimma. .

A pre-treatment clinical and epidemiological survey to determine the prevalence of onchocerciasis was carried out in two village in Keffa and Jimma Administrative Zones, southwestern Ethiopia. Out of approximately 5000 villagers, six hundred and twenty persons participated in the study of which 200 persons were examined for onchocerca microfilaria. The overall prevalence of onchocerciasis based on skin snip examination was 64% and 68% in Gojeb and Kishe respectively 39% had acute skin lesions, 49% had chronic skin lesions whereas 17% had nodules. Out of 18 cases of visual impairment, 6 possible cases of ocular oncho were identified (4 early choroidoretinitis, 1 chronic iritis/cataract and 1 punctate keratitis). The community microfilarial load was 13.9 and 12.7 mf/skin snip for the respective villages. The number of microfilariae per skin snip ranged between 0 and 367. Itching was reported in 50% of villagers. The epidemiological and clinical manifestations of onchocerciasis along with possible methods are discussed.

#### Antimalarial drug utilization by women in Central Ethiopia

Hailu Yeneneh, MD., MSc.

National Research Institute of Health

A survey was undertaken to assess the knowledge, attitudes and practices, with respect to malaria, on 300 women from six randomly selected rural communities in Central Ethiopia from December 1991 to February 1992. Eighty five percent were able to recognize one or more of the common symptoms of malaria. Transmission was generally misunderstood and only 23% believed it could be prevented. More women preferred to obtain antimalarial pills from government clinics than from privet drug shops, mission clinics, unofficial infectors, open markets or from leftover sources. Children under five were identified as the most malaria-vulnerable group and given priority for treatment. Severity of illness was the principal determinant in seeking treatment. Decisions were generally made jointly by both parents. As distance from a health unit increased, knowledge about transmissibility of malaria decreased (OR = .48, 95% CI .27, .86). Logistic regression analysis showed literacy and village location to be the most important variables associated with knowledge of prevention.

#### A review or first pregnancy in Jimma town

Abbebe G. Mariam, BSc. MPH, Sissay Wondmagen, BSc,MSc, Sileshy Demisse, Aynalem Abrha Department of Community Health, Jimma Institute of Health Sciences

Of 267 primiparous delivered in Jimma hospital between 1987 to 1989, 238 were selected by simple random method and delivery records were analyzed retrospectively using EPI ENFO statistical package. The purposes were to identify and document pregnancy and delivery related problems, and to provide a baseline data for further sturdy monitoring of maternal and Child Health services. The results showed that prolonged labour 26.9%, abortion 14.3%, fistula 5.4% and CPD in 5.9%, the most affected age groups were those under 19 years of age. The proportion of eventful situations (any delivery related problems as PPH, C/S, vacuum extractions etc) was highest (30.4%) in the age groups of < 19 and 20-29. There was no significant difference in the incidence of normal and eventful deliveries by age group (p>0.01). Among the women who have given live birth, 14.2% had a very low birth weight (< 2000 gm), and 31.4% a low birth weight (200-2499gm). The proportion of LBW (< 2500gm) accounted for 15.1, 15.7 and 10.8 percent in the age groups; < 19,20-29 and 25-29 respectively. During the study period there were 12 maternal deaths, which lives a maternal mortality rate of 58.8 per 1000 live birth. According to our finding, pregnancy and delivery problems are observed more in the are groups < 19 and 20-24. Thus recommendation on a systematic &. continuous support for the promotion of safe maternality and motherhood, that enables the potential mothers to attain physical, mental and social maturity to better cope with pregnancy and birth was forwarded.

# Sexually transmitted diseases with emphasis on syphilis among pregnant women In Ketchene Awraja, Addis Ababa.

Daba Mosissa, MD, Dennis Carlson, MD

Denortment of Community Health, Fearly of Medicine

Department of Community Health, Faculty of Medicine, Addis Ababa University

The research design was a community based cross-sectional study; it was conducted among second and third trimester pregnant women by random sampling in Ketchene area (previously called Ketchene Awraja) which is part of the city of Addis Ababa. The objective was to determine the

prevalence rate of syphilis and to assess knowledge of pregnant women regarding sexually transmitted diseases with emphasis on syphilis.

A total of 410 pregnant women in the second and third trimester group from 16 kebeles of the district were included in the study. They underwent a physical examination, laboratory examinations were done and pretested questionnaires were administered in the order mentioned. The study showed that 11% of second and third trimester women were positive by RPR -blood examination test for treponema palladium syphilis and 7.1% were positive by TPHA confirmatorytest for treponema palladium syphilis. Knowledge regarding the existence of STDs was generally high: the percentages who mentioned various STDs when asked to list those they knew were HIV / AIDS (90.2%), syphilis (89.3%), Gonorrhoea (86.8%), chancroid (40%) and LGV (20%) respectively. Knowledge regarding the causes of STDs is inadequate, particularly with regard to causes of gonorrhoea, but knowledge regarding treatment and prevention is fair. The frequency of asymptomatic syphilis was high; more than half of the 29 TPHA confirmed syphilis cases had no symptoms; likewise, the signs/symptoms had a low positive predictive value, that is very few of those with positive signs/symptoms of syphilis were actually positive by the TPHA-test. This may be because they had other STDs (LGV, Chancroid, Herpes genitalis) which have also similar clinical manifestations. In this study there was no association between women's knowledge regarding STDs and their syphilis status as measured by the TPHA test. It is recommended to do vaginal examination and swabs for gram stain and wet-mount routinely during antenatal and family planning sessions. Screening for syphilis using at least RPR test should be a routine procedure in pregnant women.

#### Causes or child mortality in Gondar hospital, Ethiopia

Telahun Teka, MD,

Gondar College of Medical Sciences

During a 5 year period, a total of 656 childhood deaths, between the ages of 3 days to 15 years were registered in the paediatrics department Gondar College of Medical Sciences Hospital. Protein energy malnutrition (24.5%), Bronchopneuminia (12.2%), pyogenic meningitis (8.4%), septicemia (7.0%), disseminated tuberculosis (6.1%) are the five primary leading causes of deaths. 485 (73.9%) of the deaths occurred in children under 5 years of age and the 270 (41.2%) of the children were admitted in a moribund state and died within 24 hrs of admission.

# Some historical and philosophical aspects of education and training for public health personnel in

#### Ethiopia

Dennis Carlson, MD

Department of Community Health, Faculty of Medicine, Addis Ababa University

While some organized preparation for significant numbers of clinical workers began before the Italian War of 1935-40, institutionalization of training for hospital and clinic staff expanded in the late 1940's early 1950's. Significant community health training for health personnel began in 1954 with the establishment of the public Health College and Training Center in Gondar which included a variety of radically different educational and service innovations. The Faculty of Medicine, established in Addis Ababa in 1964, has the duty of educating physicians with strong public health

knowledge, attitudes and skills. Following the conversion of the Gondar College to conventional training in 1978, the Jimma Institute was inaugurated in the early 1980's to train professionals in a combination of preventive, promotional and curative health care. Training of community health workers which began in the 1960's was greatly expanded in the 1970's and 80's plans were made for advanced training in public Health in the 1960's but did not begin to materialize until the 1980's. Other programs for capacity building in management training and specialized technical services have been started at various times. Current endeavours to establish a national network of public health training centres as a School of public Health are proceeding.

### A review of examination performance of nursing students at the Gondar College of Medical Sciences

Melakeberhan Dagnew BSc (PH), M.P.H, Dr.Med., Melake Damena BSc (PH), M.P.H. Department of community Health, Gondar College of Medical Sciences

A retrospective analysis of the performance of nursing students at the Gondar College of Medical Sciences was done on a total of 402 students who were admitted from 1984 to 1991. Among those admitted 267 (66.4%) graduated. The attrition rate showed remarkable increase in recent years from 15% to 50%. Higher attrition rate (34%) was reported for females as compared to males (22%). A significant difference in performance between males and females was also observed. Correlation between, ESLC and academic performance was very weak. The problem in the learning-teaching process and the validity of ESLC as an admission criteria is discussed.

### Medical student's attitudes towards community health in Jimma Institute of Health Sciences, south-

#### western Ethiopia,

Mulugeta H/Michael MD, Fekadu Ayele, MD, MPH, Chali lira HSc, MPH, Fasil Tessema HSc Jimma Institute of Health Sciences

Jimma Institute of Health Sciences (JIHS) is a multi-professional training center with the core philosophy of community based, Community-oriented and team training programmes. As a community based and team training approach there is no information on the attitudes of medical students towards community health concepts, programmes and activities. To fill this gap, a cross ~ional study was conducted to assess the attitude of medical students towards community health. The study population consisted of all medical students in the institute from premedical to internship in the 1992/1993 academic year. Information was collected by a self administered questionnaire which were distributed to all medical students. Of the total 265 medical students, 240 students (90.6%) completed the questionnaires. Medical students in the Institute were predominantly, young, males, Christian and from the Amhara nationality/ethnic group. The majority were from major urban centres and well-off families. Analysis of their attitudes towards community health indicated that sex, age, years in medical school, parental residence, type and location of high school were significantly associated with their negative attitudes (p<0.01). The rate of positive attitude towards community health was found to have increased from premedical to the internship period 50% at premedical and over 60% in the majority of the cases. This study indicated that a substantial percentage of students in this institute had a negative attitude towards community health and recommends in depth investigation to be conducted on how to bring about attitudinal changes regarding community health.

### Documentation of research development and assessment of computer facilities in the health sector

#### in Ethiopia

Amare Dejene, HSc, MSc, Eyassu Isak, Tekabe Ayalew, HA, Yared Mekonnen, HSc National Research Institute of Health

A team from the National Research Institute of Health in collaboration with 16 health related institutions and departments has conducted a survey on research activities. The survey had two basic parts: Documentation of health related research including those on target, completed, in press and published; and assessment of computer facilities including selection of computer and software types for different activities. A total of 1700 research titles were reported, of these 200 (52.9%) are published and the remaining 41.4~ are in press, completed or ongoing. Regarding computer facilities, the majority of the computers are IBM and IBM compatible and most of the soft wares include WPS1, Dbase, and Lotus 123. Most of the time (> 75.4) computers are used for word processing. All the information collected is stored in a computer Data Base and will be accessible to all institutions and departments involved in health related research in Ethiopia.

### The challenges of home based care for AIDS patients in Ethiopia Berhanu Demeke, MD, George Olwit, MD

Department of Community Health, Faculty of Medicine, Addis Ababa University

This is a descriptive cross sectional study to determine factors which can influence and pose challenges for Home Based Care for AIDS Patients. The setting was Entoto Awraja -northern Addis Ababa, Ethiopia. Four hundred eighty five persons from the community of Entoto Awraja; 37 AIDS patients attending counselling and a clincial follow-up; and 12 patients' family members who were informed about the disease, were interviewed by structured questionnaires, while 127 health institution workers involved in the care of AIDS patients in different health institutions were given self administered questionnaire. The community's, patients' and their families', and health institution workers, knowledge, attitude, beliefs and practices on AIDS, hospital care and home based care of patients was assessed. More than 60% of respondents had good knowledge about transmission routes and means of preventions, although 70% of them mentioned nonspecific symptoms of the disease. 61% and 81% of the community and health institution workers respectively did not think the hospital would meet all the needs of AIDS patients, and 57% of the community preferred Home Care compared to 40% of the patients, 25% of the family members and 43% of health institution workers. The majority of the patients and their families were afraid of the social implications of visits by home care team. 60% of the community responded they will be volunteers for home care team if asked, while only 35% of the health institution workers responded similarly. The study reveals that there is good knowledge among the respondents on AIDS, with bias towards clinical care and lees emphasis on the psychological support. The community displays less fear for AIDS and more positive attitude towards home care than health institution workers. Promotional and educational efforts are recommended, with emphasis on health workers for the success of Home Based Care.

### High risk behaviours for the spread of HIV infection into rural Ethiopia Shabbir Ismail, MD,MPH,

Department of Community Health, Gondar College of Medical Sciences

A multistage, cross-sectional, descriptive study of potential routes of spread of HIV infection from urban to rural populations was carried out in rural Ethiopian communities, (Limu District, Southern Shoa, from Dec. 1991 to Ian. 1992). High risk practices for HIV infection and transmission were documented among rural residing former soldiers, merchants, and students. In 45 to 50% of the subgroup subjects extramarital sexual contact during the previous 3 months was reported. In 25 to 37% sex with urban commercial sex worker (CSW) was reported. Condom use was found to be very low, varying from 10 to 30%. Knowledge about AIDS was low. Risk perceptions fro AIDS were low 800 changes in risk behavior were minimal. A total of 502 rural farmers were also interviewed. An extramarital sexual contact in die past 3 mondis was reported in 13.5%, widi7% reporting dieir most recent contact being widi an urban CSW. Condom use was very low. Past history for sm's was assessed. Gonorrhoea was die most commonly reported illness at 10.2%. Knowledge of Ams was limited to 59% and of disease, only 28% perceived diey were vulnerable. In diis study knowledge was associated widi high risk sexual practices but not with not-sexual practices. This study found urban CSWs and fonner soldiers to be important potential reservoirs of HIV infection. Spread into rural communities is likely to occur as a result of frequent high risk practices for HIV infection among several rural population subgroups frequently travelling into urban communities; diseases include merchants, students, fonner soldiers, and farmers.

### High risk behaviour and the use or condoms in Nazareth town. Ethiopia Hailegnaw Eshete, MS.

MPH¹, Nonnan Hearst, MD, MPH², Jeffery Mandel, PHD, MPH2, Krysia Lindan, MD²

<sup>1</sup> National Research Institute of Health, 2 Center for AIDS prevention Studies, University of California.

SanFransisco

The prevalence of HIV infection has risen dramatically in Ethiopia during die last few years, with up to 75% of prostitutes now infected in some towns. In response to die growing trends of die epidemic, we conducted a cross sectional survey in 1992 in Nazareth Town to assess HIV risk behaviour, and overall use and perception of condoms among die general public. Random samples of 144 men and 126 sexually active women stratified by age and selected from public "mass" organizations were included in die study (age 13-65). Twenty four percent of bodi men and women had more dian 10 lifetime sexual partner. During die last year, 23% of die men and 34% of die women had more dian one sexual partner, and 28 % of die men had visited prostitutes. Eighty percent said diat die use of condoms were readily available. Even so, few had ever used diem (28% ); women were much more likely to have ever used condoms dian men (40% Vs 19%, p < .001) and diis was true when evaluated among all levels of education, age and sexual activity. Among bodi men and women, condom use was associated widi being less dian 40 years of age, having at least secondary schooling, and having more dian I sexual partner. Men who had visited prostitutes were also more likely to use condoms (38% Vs 9%). Widi a population widi a high level of sexual activity diat begins at early age, awareness of die need to use condoms, particularly among men, must be promoted in this country with a rapidly growing AIDS epidemic.

#### Routes or spread or HIV infection into rural Ethiopia

Shabbir Ismail MD MPH, Charles Larson MD MSc. Department of community Health, Gondar College of Medical Sciences

A multistage, cross-sectional, descriptive study of potential routes of spread of HIV infection from urban to rural populations was carried out in a rural district in Ethiopia. High risk practices for HIV infection and transmission were documented among rural residing former soldiers, merchants, and students (20 subjects per subgroup). In 45 to 50% of the subgroup subjects extramarital sexual contact in the 3 months prior to the study was reported. In 25 to 37% sex with urban commercial sex worker (CSW) was reported. Condom use was found to be very low, varying from 10to 30%. Knowledge about AIDS was low. Risk perceptions for Ams were low and changes in risk behaviour were minimal. A total of 502 rural farmers were also interviewed. An extramarital sexual contact during the 3 months prior to the study period was reported in 13.5%, with 7% reporting their most recent contact being with an urban CSW. Condom use among these groups was very low. Past history for Sill's was assessed. Gonorrhea was the most commonly reported illness at 10.2% .Knowledge of AIDS was limited to 50% and of these, only 28% perceived they were vulnerable. In this study knowledge was associated with high risk sexual practices but not with non-sexual practices. This study found urban CSWs and former ,soldiers to be important potential reservoirs of HIV infection. Spread into rural communities is likely to occur as a result of frequent high risk practices for HIV infection among several rural population subgroups frequently travelling into urban communities; these include merchants, students, former soldiers, and farmers.

# Knowledge, attitude and practice on IUV/AIDS among population of a rural high school in north western Ethiopia

Asnake Hailu, Tesfu Lisanework, Chemet Negeri, Betelehem Ashenie, Edom Girmay, Taye Tulema,

Dejene Fanta

Gondar College of Medical Sciences

In order to determine the source of information and the level of knowledge, Attitude and Practice related to HIV I AIDS, a cross sectional survey was conducted using a self reported questionnaire in a total of 178 high school students. Radio and health professionals were the top two important sources of information. Family members and religious units were considered as less important sources. 52.8% claimed to have one lor more sexual intercourse in their life. The majority had their first sex before reaching the age of 16 years. The mean..t..SD sexual partners was 3..t..1.5. A substantial proportion among the sexually active groups never use condom during intercourse. The majority of the study group have favourable atti!Ude and good knowledge. On the other hand, 80% of those who have already started sex were labelled as a high risk group, one that makes unsafe sexual practices prevalent. The endeavour which is observed in some urban areas need to extend to the rural community giving special emphasis to I.E.C. and condom promotion.

# In vitro antimicrobial susceptibility status of bacteria from different clinical specimens in NRDI.

Yeshi Wlmedin, BSc, Amare Dejene, BSc, MSc, Hailu Tegenework, BSc, MSc

National Research Institute of Health.

A total of 4,694 records were studied by systematic sampling from eleven dissent clinical specimens over a period of 6 years (1988 to 1993) from the records of Bacteriology Division of NRIH, The major organisms isolated were E. coli, 1125 (24%) and Klebsiella, 674 (14.4%). Of all tested antibiotics; Ampicillin, Erythromycin, Methicillin, Penicillin, Tetracycline, Trimethoprin Sulfamethoxazole and Sulphadiazine showed a significant increased of resistance by year. This study is believed to give a logical guidance derived from the continuing observation of the changing patterns of bacterial resistance. It will also enable to propose action that is effective for reducing the frequency and ill effects of antibiotic resistance in bacteria.

#### Retrospective study of cervical carcinoma in NRIH from 1988 to 1992

Feleke Bojia; BSc,MD, <sup>1</sup>I, Amare Dejene, Bsc,MSc, <sup>2</sup> Yared Mekonnen, BSc<sup>2</sup>

<sup>1</sup>Department of Pathology

<sup>2</sup>National Research Institute of Health

The objective of this study was to retrospectively review the pattern of cervical carcinoma, its age distribution and identify the frequently occurring histologic types in order to depict the magnitude of the problem in our country. A total of 2126 proven cases were systematically included in the study from the record book of the Pathology Department of the National Research Institute of Health. Of these 178 (8.3%) were specimens from the cervix, of which 30% were found to be carcinoma of the cervix and the pattern showed an increasing trend by age. The most frequently occurring Histologic type of carcinoma was keratinizing and Non-keratinizing Squamous Cell Carcinoma (73%).

#### Tuberculin response of Ethiopian children after BCG vaccination at birth

Abebe Mebratu, MD, James Hanley, PhD, Derege Kebede, MD. Department of Community Health, Faculty of Medicine, Addis Ababa University

In an attempt to evaluate the effectiveness of neonatal BCG vaccination policy, a tuberculin survey was conducted among different age groups of children in Lideta awraja, Addis ababa who had received BCG vaccination shortly after birth. Tuberculin PPD tests were also performed simultaneously. In addition, 60 children were revaccinated at the age of 10 years (within the study period) and tuberculin tests were performed 2 months after the second vaccination. Furthermore, 70 bacteriologically proven tuberculosis patients were also tuberculin tested at the beginning of the study, in order to check the potency of tuberculin PPD test and to estimate the diagnostic value of the test. A total of 895 children were studied between October 1992 and February 1993. Of these 563 (63%) had a definite BCG scar. Some 55% of the children without a BCG scar showed no r~ponse to the tuberculin test, while 67% of those with a scar showed a positive tuberculin response. Meanwhile, a positive tuberculin reaction ( > 6 mm) was observed in 11% of children despite the absence of the BCG scar .All the children revaccinated at the age of 10 years showed a positive tuberculin reaction and elicited a larger size of BCG scar (> 4 mm). The tuberculosis patients showed tuberculin reactions according to an unimodal distribution. Of these 12% showed 10 -15mm induration. A reaction of 10-15 mm were also observed in 3.3% of children without a

scar 11 % of children with a large scar size( > 5mm) and in 10% of revaccinated children with out tuberculosis infection. This revealed ~at the lack of specificity of the test. Overall, this finding emphasized the poor tuberculin response in infants at the age of 2 months compared to 18 months after vaccination at birth and the waning effect of tuberculin response at the age five years compared to 18 months. It indicates that the BCG induced allergy tended to disappear in this age group and the need for revaccination. Thus we suggest a further study in deciding the age of first vaccination and revaccination at the age of 5 years without tuberculin test.

#### Tuberculin test survey in yebu elementary school children-Jimma zone

Seid Mohammed MD,MPH, Fasil Tessema BSc, Assefa Alem Department of Community Health, Jimma Institute of Health Sciences

A cross-sectional tuberculin test survey was conducted in Yebu elementary school, Yebu town, Mana-district, Jimma zone in June 1993. In this survey 201 elementary school children between the ages of 6 to 15 years were included, 96 males and females. The survey consisted of a questionnaire format, examination for the presence of BCG scar and tuberculin skin testing with PPD- Rt 32. The overall prevalence of tuberculosis infection was found to be 42.8%. The prevalence of tuberculosis infection excluding BCG scar was 28.4%. It is estimated that the annual risk of infection (ARI) is 1.6%. Boys and girls are equally affected (p>0.05), students who came from a larger family size have a greater risk of infection (p< 0.01). It was also found out that students who drink un-boiled cow's milk have high risk of infection compared with those who do not (p < 0.01) the BCG coverage late in the study population is found to be 22.9%. Tuberculin postitivity among children with BCG scar is 91.3. Based on the findings of the survey important conclusion and recommendations are made.

#### Rotavirus infection in paediatrics diarrhoea in Addis Ababa, Ethiopia

Almaz Abebe, Msc. <sup>1</sup>, Solomon Abebe, Dip. Senior Lab. Tech. <sup>1</sup>, Miruts Giday, Bsc. <sup>1</sup>, Belachew Taffesse, MD<sup>2</sup> <sup>1</sup>National Research Institute of Health, Addis Ababa, Ethiopia, <sup>2</sup>Yekatit 12 Hospital, Addis Ababa, Ethiopia

Rotavirus was studied on 358 cases of acute diarrhoea and 93 randomly selected controls of infants and young children at Yekatit 12 Hospital, Addis Ababa, Ethiopia, for a period of 13 months. The virus was detected in faeces of 65 (18.2%) of the patients with acute diarrhoea tested by ELISA. Rotavirus was frequently detected among infants and children up to 24 months. The virus had two peak incidences: one occurred during the months of June to July, when it was wet and warm with high relative humidity, and the second one in November and December when the weather was dry and cool with low relative humidity. This study shows the prevalence of rotavirus among infants and young children and how the magnitude of the problem vary from season to season.

#### Status of the Guinea worm eradication programme in Ethiopia

Seyoum Taticheff, PhD National Research Institute of Health

Guinea worm diseases has been targeted for global eradication by 1995. In Ethiopia, a National Steering Committee and various task forces in endemic regions have been established. The combined efforts of the above groups has now ascertained endemicity of the disease in Gambella

and S.Omo region. The overall total number of endemic villages is presently 116 with 817 people confirmed of having contracted the disease. Comprehensive interventions that include the introduction of local health personnel and village-based volunteer workers, community mobilization, village-based surveillance, development and distribution of health education materials and filters, and application of Abate in water ponds are gradually in progress while improvement of water supply systems is at the planning stage. Eradication attempts along with constraints in the programme will be addressed.

#### Urban ulcer problem in Hansen's disease

Tesfaye Bulto, MD, MPH, Roland Kazen, MD, Heather Currie All Africa Leprosy and Rehabilitation Center

According to the 1986-1990 annual reports of the Addis Ababa Leprosy Hospital (Alert), ulcer dressings were done daily, Monday Through Friday, on 100 to 130 HD patients. In 1991 a total of 443 cases were registered and among them 73.4% were from "WORREDA" 23 (where the Hospital is located and large population of HD patients are found) and 26.6% were from other localities in and outside Addis Ababa a detailed Socio-Economic and clinical review done on 105 systematically sampled cases is presented and future plans to find solutions for the problem is discussed.

#### Dermatological manifestions in mv infected Ethiopian patients

Taye Engida, MD, Belayneh Hialu, MD All Africa Leprosy & Rehabilitation Training Center

A review of HIV- screened patients was made at Addis Ababa Leprosy Hospital (ALERT) in the years between Ian. 1987 and Sept. 1993. A total of 1537 patients mainly with dermatological manifestations were screened. Among them 1058 were found to be positive. Of all positives about 70% were diagnosed with herpes zoster at different sites. Other indicator diseases like kaposi's sarcoma; oral candidiasis and molluscum contagiosum constitute about 7%. As studies have shown elsewhere, skin disease manifestation in the majority of HIV positive patients seen at Alert is also herpers zoster.

Evaluation of an Amharic version of the cmI and prevalence estimation of mental disorders according to DSM-III-R in arada district, Addis Ababa. Eskindir Rashid<sup>1</sup>, MD, Derege Kebede<sup>1</sup>, MD, Atalay Alem Ejigou<sup>2</sup>;MD

The feasibility, reliability, and acceptance of the Amharic version of the CIDI (Composite International Diagnostic Interview) was tested in Addis Ababa city using clinician and non clinician interviewers. In the first part of the study a total of 64 subjects from three different sources (community, psychiatric inpatient and outpatient) were interviewed. The CIDI was judged to be

<sup>&</sup>lt;sup>1</sup>Department of Community Health, Faculty of Medicine, Addis Ababa University

<sup>&</sup>lt;sup>2</sup> St. Amanuel Psychiatric Hospital, Addis Ababa.

acceptable by most clinician and non clinician interviewers. The few concerns about it include, the length of the interview and difficulties with a few of the items. For specific diagnoses made with frequency of five or more time, percent agreement and kappa ranged from 92.5%-100% and 0.78-0.92, respectively. The second part of the study determined the life time prevalence of specific DSM-111-R disorders using the Amharic CIDI modified after the reliability study, 502 community subjects selected from Arada district by systematic random sampling were interviewed. The most frequent specific diagnoses found were; Organic brain syndrome mild (14.1%), severe (4.4%), Agoraphobia without history of panic disorder (3.0%) and dysthymia (3.0%). The very high rate found for organic brain syndrome, compared to other studies, made the reliability of the CIDI for that diagnoses questionable. Otherwise, it is concluded that the Amharic version of CIDI is reliable, acceptable, and feasible for use in the country. Thus similar studies that facilitate CIDI to be used with better designs are recommended.

#### Cigarette smoking among pupils of a rural high school in northwestern Ethiopia

Asnake Hailu, Mandefero Mengistu, Negib Salih, Wondimagenehy Hailu, Yemane Solomon, Yoseph

Assefa, Zelalem Tesfaye Gondar College of Medical Sciences

Features of cigarettes smoking habit among a rural high school community was assessed using a self reporting questionnaire.

The overall prevalence of smoking was found to be 11% .Male preponderance, a tendency of smoking which increased with grades attaineded and age were observed. Those with smokers among friends and family members were exposed to being smokers themselves. Knowledge and attitude scores among the study group were not satisfactory .The observed prevalence need to be considered as the tip of an ice berg as much more is expected out side the school community. Uninterrupted anti-smoking intervention is the inevitable needed resource even in rural schools to dry out the increasing smokers pool. Smoking related information to the general urban and rural population will help to stimulate parents and responsible sectors to discourage and possibly prevent smoking habit among the youth.

# Solid waste problem, collection and disposal programs in Jimma town: south-western Ethiopia

Kebede Faris, Dip. Sasc., Dip. WSS., BSc., MSc(EH), Tasew Berhe, Dip. Sasc. and Halemariam Churco, Dip. Sasc.

Jimma Institute of Health Sciences(JIHS)

A study on the quantity, type, and composition of solid waste in Jimma town was conducted based on the existing collection and disposal program of the municipality of Jimma. The collection program covers 43% of the town, that is 9 out of the 29 Urban Dwellers Associations (Kebeles). The study was conducted for 38 consecutive days and included a collection of mixed solid wastes and the analysis of the constituent parts. It was found that the per capita solid waste generation is 0.71 kilograms. The mixed wastes were composed of 8.45% garbage, 70.42% combustible waste and 21.13% incombustible waste. The total solid waste that may be generated each day in Jimma

town with a population of 84,395 is estimated to be 118m3, the equivalent of 30 truck loads. At present, the municipality is collecting only 22m3 or 4 truck loads. This collection program costs the municipality approximately 27 birr (Us dollar 4.80) per ton. Of the generated solid waste, about 78.9% was organic in nature. If such waste is decomposed, a humus product can be recovered, which can be useful for soil conditioning by farmers and gardeners.