

**THE ETHIOPIAN PUBLIC HEALTH
ASSOCIATION**

**Second Annual Scientific Conference
22 - 24 August, 1991**

**PROGRAMME
AND
ABSTRACTS**

**VENUE: Office of the National Committee for the
Central Planning (ONCCP) Addis Ababa, Ethiopia**

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CONFERENCE COMMITTEE

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EDITORIAL NOTE

On behalf of the Profession enhancing study and research coordinating committee, I would like to welcome you all to the second annual scientific conference of the Ethiopian Public Health Association (EPHA).

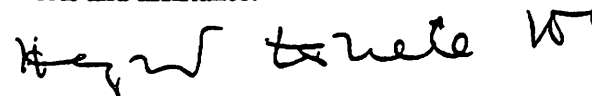
It is understood that one of the responsibilities of this committee is encourage members to conduct research and create an appropriate forum to disseminate their findings in as much as possible to their colleagues through seminars, workshops and conferences. This year, I am very proud to report that a total of 34 scientific papers have been accepted for this annual scientific conference showing a dramatic increase of about 70% in comparison to the last year's presentation. This is a good indication of how our association is becoming stronger by the year.

Apart from the large number, this year's abstracts were also diversified dealing with various aspects of public health. We have tried to regroup the abstracts into six areas mainly; Family Health, Parasitic Diseases, Microbiology, Nutrition, Laboratory Technology and Community Health. All of this year's presentation will be very useful and interesting to the participants and I hope a great deal of knowledge will be obtained from the presentations and discussions.

In addition to organizing this conference, our committee has been also doing a number of activities side by side. The necessary arrangements have been made to make the Ethiopian Journal of Health Development (EJHD) the association organ. To this end after holding a series of meetings, a letter of understanding has been drafted for approval by the association and the Addis ababa University (AAU). Furthermore, with the assistance promised from the McGill Ethiopia Health Project we have been working on a program to undertake a one day seminar particularly for the council members. Preliminary work has been completed to produce Felege Tena (The Association Newsletter) biannually starting this month. This newsletter will be an appropriate forum for exchange of beneficial experiences among members and dissemination of short articles,

comments and valuable information. In collaboration with some research and teaching institutions we are doing the necessary arrangements to initiate continuing education program every year. The continuing education which was planned for this year is postponed for next year because of some inconveniences.

At last please allow me to express my gratitude for the diligent efforts of many individuals and institutions particularly Dr. Haileselassie Tesfaye and Dr. Afeworki G. Yohannes of the National Research Institute of Health; Dr. Derege Kebede of the Department of Community Medicine of the Addis Ababa University and Mr. Bekure Hawaz of the Ministry of Health for their continued efforts and assistance.



Hailegnaw Eshete (BSc, MSPH, MPH)

Chairman

Profession Enhancing, Study and Research

Coordinating Committee

EPHA

PROGRAMME SUMMARY

DATE	TIME	TOPIC	CHAIRPERSON	RAPORTEURS
THURSDAY	7:30 - 9:00	Registration		
	9:00 - 10:00	Opening Addresses	Dr. Adanech K. Mariam	
	10:00 - 12:30	Key Note Address "Community Participation"	Mr. Hailu Meche	Ms. Mebrat W. Tensay Mr. Million Admassie
AUG. 22/91	2:00 - 4:00	Family Health	Dr. Teye Tekon	Dr. Tesfaye Shiferaw Mr. Yohannes Taddesse
	4:20 - 5:10	" "	Dr. D. Carlson	"
FRIDAY	8:30 - 10:30	Parasitic Diseases	Dr. Fisseha H. Meskel	Dr. Derege Kebede Dr. Mathewos W.
	10:50 - 12:30	Microbiology	Dr. Haileselassie Tesfaye	
AUG. 23/91	2:00 - 4:15	Nutrition	Dr. Charles Larson	
	4:35 - 6:00	Lab. Technology	Dr. Seyoum Tatischeff	" "
SATURDAY	8:30 - 10:10	Community Health	Dr. Tewabech Bishaw	Dr. W. agegnehu Alemu Dr. Hana Neka Tibebe
	10:30 - 11:15	Closing Remark	Org. Committee	
AUG. 24/91	11:15 - 12:30	Business Meeting	" "	
	2:00 - 4:00	" "	" "	

DETAILED PROGRAMME

THURSDAY 22, AUGUST 1991

OPENING CERMONY

7:30 - 9:00 REGISTRATION

9:00 - 10:00

- Welcoming Address, Secretary, EPHA
- Opening Address, Minister of Health
- EPHA Chairman's Address
- Remark by the Conference Secretary and Certificate Award

10:00 - 10:30 COFFEE BREAK

Chairperson: Mr. Hailu Meche,
Rapporteur: Ms. Mebrat W. Tensay, Mr. Million Admassie

10:30 - 11:15 Key Note Address:
"Community Participation"

11:15 - 12:30 DISCUSSION

12:30 - 2:00 LUNCH BREAK

SCIENTIFIC PAPERS

Session 1

THURSDAY 22, AUGUST 1991

Chairperson: Dr. Taye Tekon

- 14:00 Ab 1. Family planning survey among Ethiopian Domestic Distribution Employees, in city of Addis Ababa.
Mathewos Wakbulcho
- 14:15 Ab 2. A Two-year progress report on an integrated pilot community based Family Planning Project in Efratana Timuga Awraja, Northern Showa
Dennis Carlson, Seifu, Wode Abrham, Misganew Aschenake and Ketema Abebe
- 14:30 Ab 3. Modern contraception initiation: Does involving husband make a difference?
Almaz Terefe, Charles Larson
- 14:45 Ab 4. Factors influencing husband wife attitude and use of contraceptive methods
Tadele Gebeyehu, Adanetch Kidanemariam
- 15:00 Ab 5. Reaching the people: An analysis of audience and media on Family Planning in Ethiopia
Mellese Gebrie
- 15:15 DISCUSSION
- 16:00 COFFEE BREAK

Session 2

Chairperson: Dr. Dennis Carlson

- 16:20 Ab 6. The Butajira rural health project in Ethiopia: Mortality Pattern of the under fives
Desta Shamebo, Lulu Muhe, Anita Shamebo, Stig Wall
- 16:35 Ab 7. Neonatal Tetanus Mortality survey in North and South Omo, Ethiopia
Wondimagegnehu Alemu
- 16:50 Ab 8. A community based survey of high risk pregnancies and determinants of pre eclampsia and gestational hypertension in Ada-a district, Ethiopia
Asnake Hailu, Derege Kebede
- 17:05 Ab 9. Community based study of childhood injuries in Adamitulu district, Ethiopia
Solomon Demamu, Joice Pickering
- 17:20 Ab 10. Care givers knowledge, Beliefs, attitudes and practices on case management of acute respiratory illness in sululta awraja
Saba W. Michael, Dennis Carlson
- 17:35 DISCUSSION
- 18:10 E N D

Session 3

FRIDAY 23, AUGUST 1991

Chairperson: Dr. Fisseha H.Meskal

8:30 Ab 11. Disequilibrium of malaria transmission in Ethiopia
Assefa Nega, Fisseha H.Meskal

8:45 Ab 12. Serological diversity of plasmodium falciparum in Ethiopia
Tesfaye Mengesha, Fekade Balcha, Assefa Nega, Dominique Frommel

9:00 Ab 13. Drug profile variations among plasmodium falciparum isolates in Ethiopia

Tesfaye Mengesha, Fekadu Balcha, Tsehay Assefa, Assefa Nega, Dominique Frommel

9:15 Ab 14. Survey of hookworm infections and haematocrit levels in resettled and indigenous population in Gambella

Tesfaye Bulto, Fisseha H.Meskal, Tekola Endeshaw, Amare Dejene

9:30 Ab 15. Preliminary observation on microfilarial load in patients with onchocerca volvulus treated with Ivermectin

Amha Kebede, Seyoum Tatischeff, Tesfaye Bulto, Dejene Tilahun, Wendimu Werkenehe

9:45 DISCUSSION

10:30 COFFEE BREAK

Session 4

Chairperson: Dr. Hailelassie Tesfaye

10:50 Ab 16. Water handling practices and their association with childhood diarrhoea

Mengistu Asnake, Gebramanuel Teka, Charles Larson

11:05 Ab 17. Chloramphenicol Resistant Salmonella typhi from a patient in Addis Ababa: Genetic and Molecular analysis

Afeworki Gebreyohannes, Berhanu Tekle, Yetnebersh Limenih

11:20 Ab 18. An outbreak of acute toxicity caused by food contaminated with Datura stramonium

Asefa Aga, Aberra Geyid

11:35 Ab 19. A community based randomized trial of home made Oral Rehydration Therapy

Befekadu Teferedegn and Charles Larson

11:50 DISCUSSION

12:30 LUNCH BREAK

Session 5

Chairperson: Dr. Charles Larson

- 2:00 Ab 20. Goitre prevalence in Ethiopia
*Bantirgu Hailemariam, Birhanu Hailegiorgis,
Hana Neka Tibeb, Cherent Abuye and
Abera Bekele*
- 2:15 Ab 21. Goitre in Gololcha Awraja,
Damen Hailemariam, Gebessa Tolessa
- 2:30 Ab 22. Ten years control programme of iodine deficiency disorders in Ethiopia
*Abera Bekele, Hana Neka Tibeb,
Bantirgu H.mariam, Chernet Abuye and
Birhanu Hailegiorgis*
- 2:45 Ab 23. Mean urinary Iodine excretion rates of population groups in households of 10 urban and 10 rural sites in Ethiopia (1987/88)
Chernet Abuye, Bantirgu H.Mariam, Hana Neka Tibeb, Abera Bekele and Kelbesa Urga
- 3:00 Ab 24. Mean values of T_3 , T_4 , & TSH in households of ten urban and ten rural sites in Ethiopia in relation to the TGR %.
*Hana Neka Tibeb, Petros Gebre, Chernet Abuye,
Bantirgu H.Mariam, Abera Bekele and
Kelbesa Urga*
- Ab 25. Food availability and consumption pattern in farm and agro industry workers families of Sidamo agricultural development enterprise
Haregewoin Cherinet, Tadessé Alemu

3:30 DISCUSSION

4:15 COFFEE BREAK

Session 6

Chairperson: Dr. Seyoum Taticheff

- 4:35 Ab 26. Isolates of STD causative from commercial sex workers in Addis Ababa
*Abera Geyid, Haileselassie Tesfaye,
Aklog Abraha, Yetnebersh Lemeneh,
Solomon Desta and Workneh Feleke*
- 4:50 Ab 27. Evaluation of the modified Baerman's method in the laboratory diagnosis of *Strongyloides Stercoralis*.
*Tsehay Assefa, Tilahun Woldemichael, and
Tareke Seyoum*
- 5:05 Ab 28. Comparison of Serological techniques used for the diagnosis of *Rickettsia Prowazeki* infections
*Teshaynesh Messele, James G.Olsson,
Tsefaye Bulto, Minutse Giday,
Seyoum Taticheff and Ben. S.Mitchell*
- 5:20 Ab 29. Microbiology of indigenously fermented milk
Almaz Gonfa
- 5:35 DISCUSSION
- 6:00 E N D

Session 7

SATURDAY 24, AUGUST 1991

- Chairperson: Dr. Tewabech Bishaw
- 8:30 Ab 30. The incidence of injuries and their determinants in Akaki Textile Factory
Elias Senbeto, George Olwit
- 8:45 Ab 31. Skin lesions in resettled and indigenus populations in Gambela, with special emphasis on the epidemiology of tropical ulcer
Tesfaye Bulto, Fisseha H.Meskel, Getachew Fisseha
- 9:00 Ab 32. The effect of health sector support on the functional status of community health agents
Fekadu Ayele, Asfaw Desta
- 9:15 Ab 33. The need for training of communicators for AIDS information and education in Ethiopia
Hailegnaw Eshete
- 9:30 Ab 34. Overview of the health information system in Ethiopia and imperatives for validation.
Tesfaye Shiferaw
- 9:45 DISCUSSIONS
- 10:10 COFFEE BREAK
- 10:30 CLOSING CERMONY
- 11:00 BUSINESS MEETING
- 12:00 LUNCH BREAK
- 2:00 BUSINESS MEETING CONTINUES

RAPPORTEURS

Thursday:

1. Ms. Mebrat W/Tensay AM
2. Mr. Million Admassie AM
3. Dr. Tesfaye Shiferaw PM
4. Ato Yohannes Tadesse PM

Friday:

1. Dr. Dereje Kebede AM/PM
2. Dr. Mathewos Wakbulcho AM/PM

Saturday:

1. Dr. Wendimagegnehu Alemu AM/PM
2. Dr. Hanna Neka Tibeb AM/PM

ABSTRACTS

Ab 1 FAMILY PLANNING SURVEY AMONG ETHIOPIAN DOMESTIC DISTRIBUTION CORPORATION EMPLOYEES, IN CITY OF ADDIS ABABA

*Mathewos Wakbulcho, M.D., MPH
Kechene Health Office, MoH,
Addis Ababa*

Of the odd 900 employees in the head quarter of the Ethiopian Domestic Distribution Corporation (EDDC), in city of Addis Ababa, 201 were randomly selected and involved in a survey assessing attitudes towards, and knowledge and utilization of Family Planning. Results showed that 94% of the respondents knew at least one method of family planning. Out of them, 81% of the employees are using different contraceptive methods. No significant statistical difference was found in knowledge, attitudes, and practice of Family Planning between male and female respondents. Among non-users, 73.8% expressed a need of using contraceptives in the future. If that came in effect, somewhat speculated through work area based contraceptive distribution, the number of users may reach 70%. Sources of Family Planning information and factors related to dropouts and non-users were discussed.

Ab 2 A TWO-YEAR PROGRESS REPORT ON AN INTEGRATED PILOT COMMUNITY BASED FAMILY PLANNING PROJECT IN EFRATANA TIMUGA AWRAJA IN NORTHERN SHEWA

*Dennis Carlson, Seifu Wolde Abraham, Misganew Tamene,
Ketema Aschenake, and Ketema Abebe*

Save the Children Federation (USA)

Over the past three years an integrated pilot project has been developed which combines community based family planning with outreach EPI activities. Intensive in-service training, community health education, and systematic supervision are essential elements of the program. Ten communities have begun services, though four were unable to continue due to security conditions. Another seven have done the necessary preparations and expect to begin activities soon. At least 14,034 rural people currently have ready access to regular contraceptive supplies. Another 17,000 in the seven new communities may also gain easily available access. In the first pilot community of 1,634 total population there were 432 women from ages 15 to 49 years. Thirty five percent (151) started oral contraception since the program started. Eight of the 151 moved out of the kebele. Eighty three percent (199 of 143) of those who started contraception (and stayed in the village) continued modern contraception. Twenty eight percent (199 of 432) of all women between 15 and 49 are presently using oral contraception despite difficult circumstances. The possibilities of safe efficient growth of the integrated community based program seem likely.

Ab 3 MODERN CONTRACEPTION INITIATION: DOES INVOLVING HUSBANDS MAKE A DIFFERENCE?

*Almaz Terefe, BSc and Charles Larson, MD
Dept. of Community Health, Faculty of Medicine,
Addis Ababa University*

A field trial to initiate modern contraception (MC) was conducted in Kotebe Awraja, Addis Ababa Administrative Region, between August 1990 and January 1991. The purpose of the field trial was to examine what effect involving husbands in a family planning (FP) intervention program would have on the initiation of modern contraception (MC) by the couple. A total of 528 married women aged 15-49 were included in the study, randomly divided into two groups on the basis of "blocked" assignments to home visitors. The experimental group, totalling 267 received the intervention package with their husbands, while the control group, totalling 261 received the intervention package without the involvement of their husbands. The family planning intervention package was the same. A baseline interview conducted to assess socio-demographic, reproductive, knowledge and attitudes of the wives, as well as of their husbands prior to group assignment did not reveal any statistically significant differences between the experimental and control groups. Of the 528 married couples who were entered into the study, 106 initiated MC. A statistically significant higher proportion of couples in the experiment group initiated MC as compared to those in the control group. (relative risk 1.61), 95% CI (1.13, 2.3), $P < 0.007$). The younger age of wife and husband, higher educational level of wife, greater number of barriers identified to use MC, and having a husband's support were positively associated with the verified initiation of MC. It is concluded that family planning programs for married women of reproductive age which include husbands have a higher degree of success than those only directed to wives. It is therefore recommended that future family planning programs should include men and that further investigation of its effectiveness be implemented.

Ab 4 FACTORS INFLUENCING HUSBAND-WIFE ATTITUDE AND USE OF CONTRACEPTIVE METHODS

*Tadele Gebeyehu, MD and Adanetch Kidanemariam, DrPH
Dept. of Community Health, Faculty of Medicine,
Addis Ababa University*

This community based, cross sectional study on factors influencing couples' attitude toward and practice of modern contraception (MC) was conducted in Awassa Zuria Awraja, Sidamo Region. The method of data collection was using pre-tested questionnaires administered to randomly selected couples by trained interviewers at the homes of the respondents. A total of 415 households/couples were involved in this study. Thus 415 husbands and 415 wives were interviewed. Mean ideal number of children desired by male and female respondents were 5.7 and 5.3 respectively. More than 80% of the couples had a positive attitude toward modern contraceptive methods. Among the sample population, 9.6% were using MC at the time of interview. Of these 87% used MC for spacing birth, 10% used it because they wanted no more children. Various factors which have been assumed to have an influence on family planning adoption or resistance among the couples were studied. Among the factors the following were significantly associated with MC use. Literacy ($P < 0.001$), inter spouse communication on family planning ($P < 0.001$) and positive spouse attitude toward MC ($P < 0.001$). Oral contraceptives were used by 75% followed by condom and IUD with 7.5% each.

Ab 5 REACHING THE PEOPLE: AN ANALYSIS OF AUDIENCE AND MEDIA ON FAMILY PLANNING IN ETHIOPIA

*Mellese Gebrie, BSc, MPH
Department of Health Education,
Ministry of Health, Addis Ababa*

The number of family planning acceptors in Ethiopia is relatively very low. The National prevalence Rate (NPR) is only 2%. A study, to find out the most popular and appropriate channel of media and also the ideas, attitudes, mis-concepts and values of couples and individuals about family planning, was carried out in the five of the 15 model Awrajas selected to implement PHC programmes using the District Health Management approach. The five model Awrajas were selected by a simple random sampling method. Two kebeles, one urban and the other a peasant association were selected randomly from each Awraja. A self contained focus group discussion technique using a pre tested discussion guide was used to collect data from kebeles. There were 5-6 focus groups per kebele with 6-8 participants per group. Thus the unit of analysis was a group of individuals 6-8 in number stratified by age, sex, education and marital status. The discussion guide topics used were: age of marriage, number of children per family, interval between pregnancies, discussion between couples on modern family planning, knowledge about modern and traditional contraceptives, rumors, opinion on future use of contraceptive and source of information. A total of 250-300 participants were interviewed using a trained moderator in 10 kebeles. The answers and sayings of the participants were all tape recorded and there was also a note taker who took notes of some of the important sayings of the participants using a format prepared for this purpose. The recorded tapes and the notes were retrieved and analysed and a synopsis and a detailed report were prepared by topics which were presented to a three day seminar held between May 14-16, 1991. Based on the findings of the study and on the suggestions and ideas generated during the workshop, an IEC material and message will be designed and developed to be distributed and disseminated using the media found out through the study to be the most appropriate and effective method.

Ab 6 THE BUTAJIRA RURAL HEALTH PROJECT IN ETHIOPIA: MORTALITY PATTERN OF THE UNDER FIVES

Desta Shamebo, Lulu Muhe*, Anita Sandsrom** and Stig Wall***

**Faculty of Medicine, AAU
**Dept. of Epidemiology and Health Care Research,
University of Umea,
S-901 85 Umea, Sweden*

A total of 492 deaths of children below 5 years of age were registered during a two-year period of demographic surveillance in a rural population of Ethiopia, where an epidemiologic study base population of 28,780 individuals was established as of 1987. Data were collected by lay-reporters using a verbal autopsy method. The under-five cumulative mortality rate was 209 per 1,000 children. When sub-divided into infants and children 1-4 years, the respective yearly mortality rates were 101 and 32.3 per 1,000. There were considerable variations within the district by peasants' associations. Rural lowlands experienced the highest mortality rates, especially for children 1-4 years. Mortality trends over a two year period indicate a significant increase for the child population but not for infants. Similar trends were observed for boys and girls although the rates for boys were generally higher especially during infancy. More deaths occurred in the months of April, June and July, October and November indicating two peak seasons in both years. More deaths occurred in peasant's associations that were furthest from the health centre. Major probable causes of death were acute respiratory infections, measles and diarrhoea. It is concluded that even in rural areas of a developing country it is possible to collect the much needed and valid fertility and mortality data from mothers through epidemiological surveillance by using lay reporters.

Ab 7 NEONATAL TETANUS MORTALITY SURVEY IN
NORTH AND SOUTH OMO, ETHIOPIA

Wondimagegnehu Alemu, MD, MPH & TM
Epidemiology Department, MOH

Neonatal tetanus (NT) is the second most frequent causes of mortality of infants among the six vaccine preventable infections in developing countries. However, lack of reliable data has largely obscured the importance of the problem in these countries. To estimate the magnitude and extent of NT in North & South Omo, a community based NT mortality survey was conducted, using cluster sample method developed by WHO/EPI, in August 1989. The study revealed a total of 14 neonatal tetanus deaths among 2100 live births that occurred from 15 June 1988 to 15 July 1989 giving an NT mortality rate of 6.7/1000 LB (live births) and an estimated incidence rate of 8.4/1000 LB, accounting for 40% of all neonatal deaths. Male newborns were commonly (2.5 times) affected than females. Cutting of umbilical cord with unsterile instrument, traditional malpractice of applying potentially infectious material on the stump, and home delivery attended by untrained Traditional Birth Attendants (TBAs) were found to be very common in this part of the country. Assessment of TT immunization to all women of child bearing age and training of TBAs on methods of safe and clean delivery coupled with continuous supportive supervision is recommended in order to successfully execute the NT elimination initiatives undertaken by the Ministry of Health.

Ab 8 A COMMUNITY BASED SURVEY OF HIGH RISK
PREGNANCIES AND DETERMINANTS OF PRE
ECLAMPSIA AND GESTATIONAL HYPERTENSION
IN ADA-A DISTRICT ETHIOPIA

Asnake Hailu, MD and Derege Kebede, MD
Dept. of Community Health, Faculty of Medicine,
Addis Ababa University

A population based cross sectional survey was conducted from April 1990 to March 1991, to measure the magnitude of high risk pregnancies, and to examine the determinant factors for preeclampsia and gestational hypertension, in Ada-a district. 13 urban kebeles and 13 rural villages were randomly chosen and a house to house survey was conducted based on a pre tested questionnaire and relevant measurements. Information was collected on demographic, socio-economic, the exposure status for risk factors prior and during the current pregnancy, the usual dietary intake and the usual physical activities during the early months of the current pregnancy, and measurement findings for height, blood pressure and proteinuria. A total of 567 pregnant women were included in the study. Of the 567 pregnant women 28.6% were younger than 20 or older than 34 years. Early marriage below the age of 20 were reported by 85%. 21.7% and 22.2% were Nulliparous and multiparous women respectively. 39.2% were illiterate and 42.9% with a very low income. 14.6% gave a history of abortion, 13.1% of infant deaths, 6.3% of postpartum hemorrhage and 1.1% of antepartum hemorrhage. Abnormal height was recorded in 18.5%, Albuminuria in 11.5% and abnormal diastolic blood pressure in 12.2%, where 2.9% and 9.2% were classified as pre-eclamptic and gestational hypertensive women. 52.3% were not receiving antenatal care services in the district. It was found that pregnant women in the very low category of income had a reduced risk of Pre-eclampsia (RR = 0.3, 95% CI 0.06, 1.07). And Nulliparous women had a higher risk (RR = 5.6, 95% CI 1.83, 15.92). High energy expenditure was observed to be a risk factor for gestational hypertension (RR = 5.3, 95% CI 1.35, 45.77). Among the studied pregnant women, those who had at least one of the risk factors were very high (85%). Antenatal care services were not received by the majority of the pregnant women, especially in the

rural area. Relatively young women, with a better education, a better income, in their first pregnancy were at high risk of pre-eclampsia and gestational hypertension. Strenuous physical exertion and low dietary protein intake during the early months of pregnancy also increased the risk of both pre-eclampsia and gestational hypertension. A high dietary calcium intake during the early months of pregnancy increased the risk of pre-eclampsia but not gestational hypertension.

Ab 9 COMMUNITY BASED STUDY OF CHILDHOOD INJURIES IN ADAMITULU DISTRICT, ETHIOPIA

*Solomon Damamu, MD and Joyce Pickering, MD
Dept. of Community Health, Faculty of Medicine,
Addis Ababa University*

A cross-sectional study of childhood injuries was conducted in two urban dwellers and eleven rural peasant associations for the period April 11 - June 9, 1990. The occurrence of intentional and unintentional injuries were asked in randomly selected households with children under age 15. Agent, host and environmental characteristics were also registered.

Two hundred and thirty six cases of injuries were reported for an overall incidence rate of 700.8 per thousand per year. Foreign bodies were the major cause (27.1%). The home and home yards were the site of 77.9% of all injuries. About thirty three percent of injuries happened unattended. For non-foreign-body injuries, the head, neck and face encountered 27.1% of all injuries. In 36.9% of cases nothing was done to treat the injury while 29.2% were treated at health institutions. Living in an urban area, mother being a house wife, household head having attended formal education (grades 1 - 12) and having no cows or oxen put children at an increased risk of injury. For severe injuries, inside homes and urban residence were significantly associated. Possible explanations and recommendations are discussed.

Ab 10 CARE GIVERS KNOWLEDGE, BELIEFS, ATTITUDES AND PRACTICES ON CASE MANAGEMENT OF ACUTE RESPIRATORY ILLNESSES IN SULULTA AWRAJA

*Saba Wolde Michael, M.D and Dennis G. Carlson, MD
Dept. of Community Health, Faculty of Medicine,
Addis Ababa University*

A survey was conducted in three randomly selected farmers associations in Sululta Awraja, around Chanco town. Of the three member associations 540 households were selected randomly. Mothers and other care givers of under five children were interviewed regarding their knowledge, beliefs, attitudes and practices on case management of acute respiratory illnesses. Care givers knowledge, beliefs, attitudes and practices were scored out of 5, 18, 18 and 21 respectively. The study showed that mean care givers knowledge, beliefs, attitude and practice scores were 1.7, 13.4, 16.8 and 17.2 respectively. Care givers age, education, occupation and economic status were significantly associated with knowledge and practices.

Ab 11 DISEQUILIBRATION OF MALARIA TRANSMISSION IN ETHIOPIA

Assefa Nega (MD, MPH) and
Fisseha H.Meskal** (PhD, MPH)*

**Malaria and Other Vector Borne Diseases Control Programme
**National Research Institute of Health*

Under normal circumstances distribution of malaria is dependant on the topographic features in Ethiopia, being absent in the cold highlands and highly endemic in the warm lowlands. Human movements from the densely populated drought affected highlands to the sparsely populated fertile low lands appears to upset the long established pattern of malaria transmission in settlement schemes. Labor migration affecting urban malaria is illustrated by the case in the town of Arba Minch.

**SEROLOGICAL DIVERSITY OF PLASMODIUM
FALCIPARUM IN ETHIOPIA**

*Tesfaye Mengesha¹, Fekede Balacha², Assefa Nega² and
Dominique Frommel³*

¹*National Research Institute of Health*

²*Malaria Other Vector Borne Diseases Control Programme*

³*Armuier Hansen Research Institute*

Sera obtained from patients harbouring falciparum malaria mono-infection were assayed for their merozoite invasion inhibitory capacity against In Vitro raised lines. At 1:1000 dilution, the test sera varied in their ability to inhibit radio-labelled hypoxanthine incorporation in the parasite nucleic acids. Morphologically, at a similar modal titre immunofluorescence assays show corresponding differences in serological recognition of surface antigens, but with seemingly no specificity to localities of collection. This work, thus, indicates diversity in P. falciparum isolates in Ethiopia.

**Ab 13 DRUG PROFILE VARIATIONS AMONG PLASMODIUM
FALCIPARUM ISOLATES IN ETHIOPIA**

*Tesfaye Mengesha¹, Fekede Balcha², Tsehay Assefa¹,
Assefa Nega and Dominique Formmel³*

¹*National Research Institute of Health*

²*Malaria Other Vector Borne Diseases Control Programme*

³*Armuier Hansen Research Institute*

Fifteen isolated of P. falciparum from malaria patients in different parts of Ethiopia were tested In Vitro for their drug responses to four drugs: Chloroquine, Quinine, Fansidar and Mefloquine. Referenced by a clone from Cameroon, FCM-29 C1, that was already characterized as resistant to Chloroquine, Quinine and Fansidar, and sensitive to Mefloquine, most Ethiopian isolates were found resistant to Chloroquine, and with some degree of tolerance to Fansidar. All isolates were susceptible to Quinine and Mefloquine, showing the close relationship between the infrequent use of a drug and its continued potency as an anti-malarial.

Ab 14 SURVEY OF HOOKWORM INFECTIONS AND HEMATOCRIT LEVELS IN RESETTLED AND INDIGENOUS POPULATION IN GAMBELLA

Tesfaye Bulto, MD, MPH, Fisseha H.Meskal, PHD, MPH, Tekola Endeshaw, BSc, MSc. and Amare Dejene, BSc, MSc.

A cross-sectional survey of hookworm infection and hematocrit (HCT) levels was conducted in 7 resettlers and 3 indigenous villages on sample populations selected by two stage random sampling. Of 614 resettlers and 187 indigenous persons, 65.5% and 60.4% were respectively positive for hookworm. HCT level determined on 664 resettlers and 222 indigenous persons showed an overall mean HCT level of 33.1% and 35.2%, respectively. The difference in prevalence rate of hookworm infection in the two populations is not significant; but the overall mean HCT level in resettlers is significantly lower than that in the indigenous population ($P < 0.0005$). Furthermore, a significant association ($OR = 2.65$) was found between low HCT level, (HCT below the median level for the sample population) and hookworm infection in the resettlers while the association in the indigenous is weaker ($OR = 1.33$) and not significant. Epidemiological observations are described in explaining the variations note in the two populations and suggestions are made on the need for further epidemiological studies and interventional programmes.

Ab 15 PRELIMINARY OBSERVATION ON MICROFILARIAL LOAD INPATIENTS WITH ONCHOCERCA VOLVULUS TREATED WITH IVERMECTIN

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One hundred and ninety people from Bebekka Coffee Plantation, Keffa Administrative Region, Western Ethiopia, all with moderate to heavy infection with *O. volvulus* were treated with Ivermectin (150ug/kg body wt.). Clinical examinations and microfilarial counts in skin snips were then repeated at interval for eight months. Therapy was associated with minimal side effects. Mean microfilarial count was reduced by 82.5% and 65.9% at 4 and 8 months after treatment, respectively. The proportion of people whose microfilarial count was reduced to zero was 37.4% and 20% at the same intervals of time and 29 (15%) persons remained zero through out the eight months follow up. There was a significant reduction in mean microfilarial count at four and eight months post treatment, respectively ($P < 0.01$). Operational aspects of the drug distribution and other adverse reactions will be discussed.

Ab 16 WATER HANDLING PRACTICES AND THEIR ASSOCIATION WITH CHILDHOOD DIARRHOEA

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Water handling practices of families were documented for one month and subsequently the occurrence of diarrhoea was documented every two weeks over a 16 week period in 254 children under 6 years of age. Descriptive features of the study population include: a mean crowding index of 4.6 persons per room, a mean walking distance from the water source of 4.5 minutes, and a mean per capita water consumption of 7.6 liters. Follow-up home visits were conducted every two weeks over a 16 week period. The two week period prevalence for diarrhoea during these follow-up visits ranged from 2.4% to 14.8% with a mean of 9%, which corresponds to 0.6 episodes per child over 14 weeks or can be extrapolated to 2.3 episodes per child per year. Religion, site of water collection, time to fetch water, number of rooms in a household, mothers education, type of container, per capita water consumption, and age of the child were found to be significantly associated with the occurrence of diarrhoea. There was no statistical difference between "safe" and "unsafe" water handling exposure groups in the occurrence of diarrhoea. Based on the findings different associations were discussed and recommendations given accordingly.

Ab 17 CHLORAMPHENICOL-RESISTANT SALMONELLA TYPHI FROM A PATIENT IN ADDIS ABABA: GENETIC AND MOLECULAR ANALYSIS

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The clinical history and treatment outcome of a twenty-year old female patient (EN) with typhoid fever is described. Laboratory examination showed that the etiological agent in question was a strain of Salmonella typhi which was simultaneously resistant to chloramphenicol (C), streptomycin (S), sulphonamides (Su) and tetracycline (T). Genetic and molecular analysis of this strain demonstrated that resistance to CSSuT was encoded in a plasmid, which showed a thermosensitive transfer (28°C) to an Escherichia coli K12 recipient at a frequency of 4.0×10^{-2} . The R-plasmid had a molecular weight of 110 megadaltons and belonged to incompatibility group H¹ plasmids, described elsewhere from outbreaks or epidemics of typhoid fever. This first documented report of chloramphenicol-resistant Salmonella typhi should warn medical personnel of the possible dissemination of this epidemic strain in Addis Ababa area.

Ab 18 AN OUTBREAK OF ACUTE TOXICITY CAUSED BY FOOD CONTAMINATED WITH DATURA STRAMONIUM

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We report methods used to characterize an outbreak of food-borne acute toxicity among the labour force of a cotton plantation in Middle Awash Agricultural Development Enterprise in July and August 1984. Among 1492 patients seen at the Enterprise and Ministry of Health Clinics during this period, 688 (46.1%) exhibited unusual signs and symptoms. Thirty three patients required hospitalization for intensive medical care while nine patients were reported to have died due to this condition. Contamination of corn flour with pesticides was initially suspected and laboratory animal tests were carried out which failed to show any signs of acute toxicity. Investigation of the source of the corn and its processing was simultaneously conducted and revealed the contamination of the corn with seeds of an indigenous plant identified as Datura stramonium, an antimuscarinic alkaloid. These alkaloids contain hyoscyne and hyoscyamine which is known to have toxic effect on the exocrine glands, heart, and the autonomic nervous system in man. Signs and symptoms observed in the patients and preventive measures implemented are discussed.

Ab 19 A COMMUNITY BASED RANDOMIZED TRIAL OF HOME MADE ORAL REHYDRATION THERAPY

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A randomized field trial of the relative efficacy of three oral rehydration therapies (ORT) was carried out in 18 rural peasant associations of Adamaboset district, Ethiopia. The three ORTs were pre-packaged glucose oral rehydration salt (GORS) solution (n=153), home made cereal based oral rehydration pre-packaged salt (CBORS) solution (n=154), and home made cereal and salt based oral rehydration therapy (CBORT) solution (n=156).

CBORT was superior ($P < 0.01$) to GORS and CBORS in terms of mean weight gain and diminished stool frequency at 24, 48, and 96 hours following onset of therapy. Analysis of hydration status indicated a higher proportion of children receiving CBORT were found in both the deterioration and improvement categories at 4 hours, but mean dehydration status at 4, 24, 48 and 96 hours was not statistically different among ORT groups. Mothers' compliance was significantly ($P < 0.05$) higher and children's acceptance not statistically different between those receiving CBORT when compared to GORS and CBORS. The non-packaged CBORT therapy was found to be as or more efficacious than GORS or CBORS in the treatment of acute childhood diarrhoea. On the basis of these findings it is recommended that replication studies of the relative effectiveness of CBORT, particularly in comparison with CBORS, be done with the view of eventually adding CBORT to ORT programmes.

Ab 20 GOITRE PREVALENCE IN ETHIOPIA

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A vast data has been accumulated to-date to reveal the epidemiological picture of iodine deficiency disorders (IDD) in Ethiopia. One national prevalence survey of representative sites, another baseline survey prior to the distribution of iodated salt and a number of isolated studies have been conducted at different times in the country to indicate the rate and magnitude of IDD. Taking total goitre rate percent (TGR%) as a measure of prevalence taken commonly by all study groups, the national sample survey indicated a mean TGR% of 25.1 and the pre-distribution of salt study showed a mean TGR% of 39.4. Some studies in the pocket areas in the past have more or less corresponding values while other recent ones indicated higher values showing the growing tendency of the incidence of IDD in the country thus requiring a much prompt and faster intervening action.

Ab 21 GOITRE IN GOLOLCHA AWRAJA, ARSI REGION

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Clinical survey for goitre was done in Gololcha Awraja, Arsi administrative region. The survey was done on 916 junior secondary school students which comprise nearly 1% of the Awraja population. Grading of the goitre was done using the standard classification endorsed by WHO and ICCIDD. The results showed a total goitre rate of 38.1% and a visible goitre rate of 10.7%. With the description of the geographic profile of the Awraja, iodine deficiency was considered as a possible cause of the disorder, and iodine supplementation and further study by the appropriate agencies was suggested.

Ab 22 TEN YEARS CONTROL PROGRAMME OF IODINE DEFICIENCY DISORDERS IN ETHIOPIA

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Ethiopian Nutrition Institute

Iodine deficiency disorders (IDD) have already been identified as the scourge of millions of people in Ethiopia. Through the national prevalence survey of 1981/82, 25.1% of the population are affected with goitre which is one of the simplest observable manifestations of IDD. This observation led to the development of a plan of action for the control of IDD. The action plan included all possible mechanisms of control measures from the stage of feasibility study to long term strategy of salt iodation and distribution. High and low level sensitization seminars as well as other forms of information, education and communication (IEC) means were exercised to push the programme to success. Some obstacles were met in relation to logistics and mobility. Despite this snag, the programme has come up to a satisfactory level of control up to this time.

Ab 23 MEAN URINARY IODINE EXCRETION RATES OF POPULATION GROUPS IN HOUSEHOLDS OF 10 URBAN AND 10 RURAL SITES IN ETHIOPIA (1987/88)

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After the recognition of iodine deficiency as the major public health problem in Ethiopia, a plan of action has been outlined, taking iodated salt distribution as the best alternative means of control and prevention. Prior to the distribution of salt a base-line survey was recommended to be conducted in households of 10 urban and rural sites. Part of the information gathering included the collection of urine samples for the analysis of urinary iodine. The results obtained indicated a mean urinary iodine excretion value of 81.17 ugI/d and a range of 22.4-219.9 ugI/d for the urban sites while for the rural, a mean of 44.00 ugI/d and a range of 10.4-97.9 ugI/d was obtained. The mean values of urinary iodine excretion for the individual sites were found to correlate well with the total goitre rate.

Ab 24 MEAN VALUES OF T₃, T₄ AND TSH IN HOUSEHOLDS OF TEN URBAN AND TEN RURAL SITES IN ETHIOPIA IN RELATION TO THE TGR%

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After the first national prevalence survey on Iodine Deficiency Disorders and initiation of control programme through the distribution of an iodated salt, a programme of the collection of a baseline data was outlined to be conducted in households of 10 urban and 10 rural sites of Ethiopia. Blood samples were taken as part of the data collection together with other parameters to observe biochemical values of T₃, T₄ and TSH. Analysis of results indicated a mean of 1.13 for T₃, 7.52 T₄ 2.56 TSH for the urban sites against a mean TGR% of 26.69; and a mean of 1.14 for T₃, 7.47 for T₄ and 3.17 for TSH for the rural areas against a total mean goitre prevalence rate of 26.16%. All biochemical values for both urban and rural sites are within normal range and no significant difference is obtained between the results of the urban and rural sites.

Ab 25 FOOD AVAILABILITY AND CONSUMPTION PATTERN IN FARM AND AGRO INDUSTRY WORKERS FAMILIES OF SIDAMO AGRICULTURAL DEVELOPMENT ENTERPRISE

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Household food consumption patterns of farm worker families (rural) and agro-industry worker families (urban) of Sidamo Agricultural Development Enterprise were studied. The objectives were: to determine the types of food eaten and calories available to the families relative to calories needed; to examine differences between the two occupational groups in food consumption; and to test adequacy of food intake in relation to money, sources of food, facilities, family constellation, housing and food related practices. An inadequate intake of below 80% of the required was observed in 70% of the sample, 16% were below 40% of required, with a significantly lower intake for the agro-industry group. Comparison of the groups revealed that the farm families were better off in education, salary, reliance on many different sources of food, and in having less storage food loss; and agro-industry group in facilities, nutrition education, and housing. From the six sets of determinant variables salary positively, and family size negatively were significantly associated with level of food intake. At middle levels of per capita salary, the farm worker families had a significantly higher intake than the agro-industry families, whereas at lower and higher per capita levels, they consumed equal amounts. Reasons for this difference were discussed and recommendations made.

Ab 26 ISOLATES OF STD CAUSATIVE AGENTS FROM COMMERCIAL SEX WORKERS IN ADDIS ABABA (A PRELIMINARY REPORT)

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Cervical and vaginal discharge samples, collected from 282 randomly selected prostitutes of Addis Ababa, were examined for STD causative agents. The subjects represented 900 females included in the 1990 sero-survey for HIV infection. The results of the laboratory tests indicated that 117 (41.5%) of the examined females had a single infection by one of the five organisms tested for, while the others 18.1% had experienced mixed infections of two organisms, and 4.2% of three organisms. The five organisms included *Neisseria gonorrhoea* isolated from 78 subjects (28.1%), *Trichomonas vaginalis* - from 56 (20.6%), *Candida albicans* - from 40 (14.7%), and *Gardnerella vaginalis* - associated clue cells - from 27 individuals (9.9%). The presence of syphilis infection was indicated by the TPHA test in 72 subjects, representing 37.3% of the study samples. Among the *N. gonorrhoea* isolates, PPNG strains comprised 57 (73.0%). Resistant strains were obtained to penicillin in 100.0%, ampicillin in 96.0%, bactrim (sxt) in 80.7%, among the PPNG strains; 19.1% of the NPPNG strains to penicillin, 38.1% to kanamycin, 66.6% of a bactrim and 66.7% of ampicillin. Both groups were, however, sensitive to erythromycin, tetracycline, chloramphenicol, nor floxacin, spectinomycin and ceftriaxone. Significant correlation was observed between these results and the MIC values obtained for each drug.

Ab 27 EVALUATION OF THE MODIFIED BAERMANN'S METHOD IN THE LABORATORY DIAGNOSIS OF STRONGYLOIDES STERCORALIS

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This study compared the modified Baermann's method with the formol-ether concentration and the direct-saline techniques, respectively in the diagnosis of *Strongyloides stercoralis* larvae in stool specimens. The study was conducted at Wonji-Shoa Sugar Estate located at about 110 kms, South East of Addis Ababa. Of the 718 randomly selected and examined stool specimens 125 were found positive for *Strongyloides Stercoralis*. Of these 98%, 23% and 22% were recovered by the Baermann's method, formol-ether and direct saline techniques, respectively. Findings of the Baermann's method significantly differed ($P < 0.001$) from those of the direct and the formol-ether concentration techniques. No marked difference was observed ($P > 0.1$) between the direct-saline and the formol-ether preparations. The Baermann's method accounted for over 60% of the total findings and excelled the other two techniques by four fold in sensitivity. The Baermann's apparatus modified by the Merck and Sharp Dohme Company is effective, cheap and easily manageable. Consequently, the Baermann's method is recommendable for routine and epidemiological purposes.

Ab 28 COMPARISON OF SEROLOGICAL TECHNIQUES USED FOR THE DIAGNOSIS OF RICKETTSIA PROWAZEKI INFECTIONS

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we present a preliminary result obtained from a comparison of serological methods used in the diagnosis of typhus. Serum specimens were collected from patients with a history of fever of not more than 8 days, among those referred to the National Research Institute of Health (NRIH) for the Weil-Felix test. Of the 223 eligible patients who gave acute sera, 111 patients volunteered to give convalescent phase sera. The paired specimens were tested by the Weil-Felix test, Enzyme Linked Immunosorbent Assay (ELISA) for IgG and IgM class of antibodies and Indirect Florescent Assay (IFA). Comparison of the Weil-Felix test and ELISA results with the IFA results showed that the commonly used Weil-Felix test is less sensitive and less specific than the ELISA results. Principles of the tests used and interpretation of results will be discussed.

Ab 29 MICROBIOLOGY OF INDIGENOUSLY FERMENTED MILK

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Ethiopia has several kinds of fermented dairy products. However, the nature of the organisms responsible for the fermentation of these indigenously fermented dairy products and the associated physico-chemical changes taking place are not known. Using milk from the dairy enterprise and from private homes, study was conducted to answer some aspects of fermentation as practiced here following the state-of-the-art in the production of ergo. Emphasis was given to identification of the organisms involved in the fermentation, changes in population dynamics, fermentation rates, pH, and titratable acidity. Incubation was carried out at room temperature (18.4-22°C) for about 7 days. The incubation period was extended for such period to study the spoilage aspect, too. The lowest mesophilic and thermoduric aerobic counts registered for milk from the dairy enterprise were 4×10^7 CFU/ml and 6×10^5 CFU/ml, respectively; and the highest counts were 2×10^{10} CFU/ml and 5×10^6 CFU/ml and 1×10^4 CFU/ml, respectively. The highest count for mesophiles was 4×10^9 CFU/ml while it was 8×10^6 CFU/ml for thermodurics. Milk samples from both sources had very low population of thermophiles but very high counts of psychrophiles. During this natural fermentation of milk Gram-positive bacteria of coccal morphology were found in abundance. These represented 98-99% of the total microbial flora. Associated with the population increment of the Gram-positive bacteria was the pH decline from 6.5 to 3.7 and titratable acidity increment from 0.2 to 1.0% for fresh milk samples from dairy enterprise. On the other hand, under similar circumstances the pH declined from 6.6 to 4.8 while titratable acidity increased from 0.16 to 0.7% in fresh milk samples from private homes. The quality of the ergo produced started to decline dramatically after 72h of fermentation. The spoilage aspects of ergo can be associated with the presence of the large numbers of psychrophiles during this stage of the fermentation. Keeping milk to ferment at low ambient temperatures appears to favour these organisms to grow at a fast rate.

Ab 30 THE INCIDENCE OF INJURIES AND THEIR DETERMINANTS IN AKAKI TEXTILE FACTORY

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A descriptive and case control study was done to observe the incidence of injuries in Akaki textile factory and their determinants.

There were a total of 143 accidents during the study period giving an incidence density of 200 per 1000 person years. This is very high in comparison to developed countries. The most frequent cause of injury is machinery 42 (29.4%), Hit by/against objects accounted 29 (20.3%).

Most of the accidents occur in the blanket section 29 (20.3%) and winding section 27 (18.9%). From our study, we found out that most accidents occurred on Mondays 51 (35.7%) and on Fridays 25 (17.5%). The most common time of accidents is from 8 a.m to 10 a.m. The most common parts of the body which were affected by accidents were finger 60 (42%), lower leg 27 (18.9%) hand 19 (13.3%).

The most frequent type of accidents are prick 47 (32.9%), laceration 44 (30.8%) and bruise 24 (16.8%). From the result of our study, 87.4% of the interviewed workers were not wearing personal protective devices and 86.1% have not taken safety training. 1001 total man days was lost due to 143 accidents over a period of 12 weeks. More injuries occurred in those worker who are below the age of 30 years as compared to above 30 year of age ($p < .05$) and more injuries occurred in those workers who are above 6 th grade ($p < .05$). Recommendation to decrease the rate of accidents are made.

Ab 31 SKIN LESIONS IN RESETTLED AND INDIGENOUS POPULATIONS IN GAMBELLA, WITH SPECIAL EMPHASIS ON THE EPIDEMIOLOGY OF TROPICAL ULCER

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Epidemiological survey of skin lesions was conducted in Gambella Resettlement Scheme as part of health status assessment of the resettlers. Seven resettlers and 3 indigenous villages and a sample population of 921 were selected by two stage random sampling. The overall prevalence rate of skin lesions of all types was 12.7%. The most prevalent type of skin lesion was ulcer in the lower limbs, with an overall prevalence rate of 6.7% and 7.4% in the resettled and indigenous population, respectively. The ulcers were mostly initiated by incidental trauma and males in the age group 6 to 14 years were predominantly affected. Specific etiology of the ulcer is not established but its clinical and epidemiological features were most compatible with that of tropical ulcer. Previous reports, concerning similar problems, from Gambella and resettlement scheme in a neighbouring region, Wollega, and observations made in refugee camps in Gambella, are discussed and laboratory supported investigation is recommended, to establish the etiology and initiate control and preventive measures.

Ab 32 THE EFFECT OF HEALTH SECTOR SUPPORT ON THE FUNCTIONAL STATUS OF COMMUNITY HEALTH AGENTS

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A comparative intervention study was conducted on Community Health Agents (CHAs) in two Districts of Illubabor Administrative Region, south-western Ethiopia. The objective of the study was to look into the effect of health sector support, particularly of a refresher course and regular supervision, on the health service activities of CHAs. A total of 102 CHAs who were performing at least one activity specified in their job description were divided into two groups and designated by the lottery method as either intervention or control group. Baseline input to enhance community involvement was provided to both groups: a refresher course and monthly regular supervision were provided to the intervention group only. Both groups were followed for six consecutive months to collect data on 13 health service activities separately and as a composite, which represented the functional status of the CHA. The findings indicated that 60.7% of CHAs were initially performing at least one health service activity. A group x time analysis revealed that the composite functional score and most of the 13 activities increased after T0 for CHAs in the intervention group but remained stable or declined in the control group. The mean composite score for intervention CHAs increased from 13.08 at T0 to 19.26 at T6; whereas for control CHAs declined from 12.17 at T0 to 9.58 at T6. The difference attributed to the increase in health sector support, which also helped to maintain community support.

Ab 33 THE NEED FOR TRAINING OF COMMUNICATORS FOR AIDS INFORMATION AND EDUCATION IN ETHIOPIA

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Dissemination of AIDS information and education has been found to be a difficult task to accomplish in Ethiopia. This is mainly because of shortage of communication channels, lack of resources, proper communication and Journalism training and low coverage of health in the media. In Ethiopia, there is a severe limitation of newspapers. Among a couple of daily and weekly newspapers working in four languages, the largest circulation runs editions of 30,000 while the rest remain at a circulation of 1700 - 6000. Radio ownership and availability in the nation is roughly in 20% of the households. Health education program are not many, less than one percent of the weekly programming. There are some 100,000 Television sets available only in urban communities and TV cover health is biweekly program of 30 minutes. In order to properly disseminate AIDS information and education at a grass root level particularly in the rural communities where the vast majority of the population are residing an alternative approach based on training/communicators has to be initiated. The communicators for AIDS information, education and counselling should be recruited and trained from governmental, non-governmental organizations and also from the youth, women's and Farmers associations. It is possible to increase awareness and knowledge about AIDS in the general public this way and bring behavioural and attitudinal changes in the long term.

**Ab 34 OVERVIEW OF HEALTH INFORMATION SYSTEM IN
ETHIOPIA AND IMPERATIVES FOR VALIDATION**

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The Health Information System of any country is the basis for rational policy making towards its health services. The development of a strong health planning unit within the health administration requires a well organized health information system as a pre-requisite since objective decision making is not possible without valid, relevant and timely information. In view of their importance, the health information system in general and the currently utilized reporting instruments in particular are reviewed. Of the major observations, the following were noted:

1. The information system is under utilized and functioning poorly;
2. The process for distributing and collecting the reporting instruments seems well established and functional; while the personnel and the instruments seem not generating valid and reliable data.

Suggestions are made to alleviate the shortcomings.