ETHIOPIAN PUBLIC HEALTH ASSOCIATION (EPHA)

ABSTRACT BOOK

22ND ANNUAL PUBLIC HEALTH CONFERENCE

OCT.31ST - NOV.3RD, 2011

MAIN THEME:- "ALCOHOL, TOBACCO AND SUBSTANCE ABUSE"

Ethiopian Public Health Association (EPHA)

22nd Annual Public Health Conference

Oct.31st - Nov.3rd, 2011

Addis Ababa

Alcohol, Tobacco and Substance Abuse

October, 2011 Addis Ababa

Ethiopia

Abstract Book

22nd Annual Public Health Conference

22ⁿᵈ Annual Public Health Conference

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Introduction

The Ethiopian public health Association EPHA is a multi-disciplinary association, established in August 1989 (G.C) and re-registered in 2010 (G.C). Its primary objective is to promote advancement of public health for the improvement of health, Prevention of diseases, timely treatment of the sick and rehabilitation.

Currently, EPHA has more than 4,344 members of various disciplines with diverse educational levels.

One of the major tasks taken care by EPHA are organizing annual conference which is used as a fertile ground for members and other public health professionals to study and conduct various researches as of enhancing the public health.

The association will conduct its 22ⁿᵈ annual conference from Oct.31ˢᵗ –Nov.3ʳᵈ 2011 in Addis Ababa with the main theme **Alcohol, Tobacco and Substance Abuse**. Beside to the main theme, there will be panel discussions on other sub themes.

Among 159 scientific papers submitted 48 oral and 76 poster abstracts that cover a wide range of topics regarding new born and Child health, Maternal Health, Environmental health, Communicable Diseases, Mental health, family planning and reproductive health will be presented and displayed during the conference.

Finally, EPHA would like to thank all who have sent scientific paper and the reviewers who screened the submissions.

EPHA also would like to extend its sincere thanks for the panelists and Moderators

Hailegnaw Eshete

Executive Director, EPHA

Oral Presentations

22ⁿᵈ Annual Public Health Conference
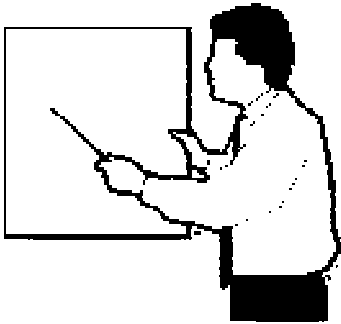
Abstract 1

PREVALENCE AND PREDICTORS OF CHAT CHEWING AMONG SCHOOL GOING ADOLECENTS: CROS-SECTIONAL STUDY, EASTERN ETHIOPIA. *Asmamaw Moges, BSC., Ayalu aklilu, Mphil., Department of Public Health, College of Health Sciences, Haramaya University, Harar; Sibhatu Biadgilign, MPH., Department of Epidemiology and Biostatistics, College of Medical and Health Science, Jimma University, Jimma; Birhanu Yazew, BSC., Department of Environmental Health Science, College of Health Sciences, Haramaya University, Harar; February,2010.*

Background: Use of psychoactive drugs such as chat leaves (*Catha edulis*) alter moods and emotional state and leads to adverse effects on the health and social life of users. This study was to find out the prevalence and associated risk factors of chat chewing among school going adolescents in Harar, eastern Ethiopia.

Methodology: A descriptive cross-sectional study was made in April 2010 among high school students in Harar town. The total sample size was 1890. A structured self-administered and pretested questionnaire was used for data collection. Descriptive statistics were done using frequencies and proportions. Bivariate and multivariate analyses were carried out using logistic regression to examine the relationship between the outcome variable of chat chewing and selected determinant factors. Adjusted and unadjusted odds ratios (OR) and their 95% confidence intervals (CI) were used as indicators of strength of association. A p-value of 0.05 or less was used as cut-off level for statistical significance.

Result: The overall prevalence of chat chewing among the sample was 24.2% (95% CI 22.2% - 26.2%). About 28.5% of females and 71.5% of males chewed chat. Male gender (OR 2.10; 95% CI 1.50-2.93, p< 0.00l), older age (OR 1.31; 95% CI 1.16-1.49, p<0.001), having friends who chewed (OR 7.93; 95% CI 5.40-11.64) and availability of someone with a similar habit in the family (OR 1.50; 95% CI 1.07-2.11, p< 0.02) were found to be independent predictors of chewing.

Conclusion: The prevalence of chat chewing is high among students and significantly associated with age, gender, peer influence and habit of family and other relative's among students. The subjective reasons given for chat chewing were "to havet concentration", "peer pressure" and "for enjoyment", among others. Strong measures such as education campaigns need to be conducted to create awareness among school adolescents in order to reduce their chat chewing.

Abstract 2

DETERMINANTS OF TOBACCO USE AMONG SCHOOL ADOLESCENTS IN EASTERN ETHIOPIA: A CROSS-SECTIONAL STUDY, _Ayalu A. Reda,_ BSPH, MPhil

Background: The World Health Organization (WHO) attributes more than 4 million deaths a year to tobacco, and it is expected that this figure will rise to 10 million deaths a year by 2020. Moreover, it is now a growing public health problem in the developing world.

Objective: Ascertaining prevalence of tobacco use and its determinant factors among high school students in eastern Ethiopia.

Methods: A cross-sectional study using structured self-administered questionnaires were used to collect data from 1721 school adolescents in Harer town, eastern Ethiopia. Univariate and multivariate logistic regression analyses were performed to examine associations.

Results: Our investigation revealed that prevalence of cigarette smoking was 12.2% (95% CI 10.8% - 13.9%) and the reasons mentioned for the habit were enjoyment: (113, 52.8%); curiosity: (92, 42.9%), and other reasons (9, 4.3%). The main contributing factors for tobacco use were gender (OR 4.32; 95% CI 2.59-7.22), age (OR 1.20; 95% CI 1.05-1.38) and having friends who smoke (OR 8.14; 95% CI 5.19-12.70). Living with people who smoke cigarettes was not significantly associated with smoking by adolescents (OR 1.25; 95% CI 0.81-1.92).

Conclusion: This study concluded that high proportion of school adolescents in Harer town smoked cigarettes. Gender, age and peer influence were identified as important determinants of smoking. This for early cost-effective interventions and education campaigns that target secondary school students.

Abstract 3

PREVALENCE AND CORRELATES OF TOBACCO USE IN A RURAL POPULATION OF ETHIOPIA, *Ayalu A. Reda (MPH), Daniel Kotz (MPH, PhD), Nega Assefa (MPH, PhD fellow), Sibhatu Biadgilign (MPHE)*

Background: Studying the prevalence and correlates of tobacco use is important for preventing the consequences of nicotine addiction. In Ethiopia there is a paucity of data on tobacco use patterns of the rural people, which make up the majority of the country's population.

Objective: This study aimed at investigating the prevalence and socio-demographic correlates of tobacco use in a rural town in eastern Ethiopia.

Methods: A total of 548 individuals above the age of 15 years were sampled using a simple random sampling technique from the database of Kersa Health and Demographic Survey (KDHS). Prevalence estimates and their 95% confidence intervals were calculated. Logistic regression was used to adjust and examine associations.

Results: There was a current smoking prevalence of 27.8% (95% CI 24.3% - 31.6%) in this economically poor rural population. Being male was a strong predictor of tobacco use with a current smoking prevalence of 38.3% (95% CI 33.8% - 43.0%). About 68% of the smokers had an interest to quit the habit while 34% tried to quit the habit unsuccessfully. Smoking was the main form of tobacco consumption. There was a high exposure to second hand smoking where 52% homes allowed indoor smoking and in 33% of the smoking took place daily.

Conclusion: Smoking prevalence among the population in general and by males in particular was high, while it was minimal in females. There was a high level of indoor air pollution from second hand smoking. The majority of smokers were interested in quitting smoking. This is opportune for interventions aimed at alleviating the problem.

Abstract 4

EFFECT OF KHAT (Catha edulis) ON BRONCHIAL ASTHMA IN JIMMA UNIVERSITY SPECIALIZED HOSPITAL ADULT CHEST CLINIC, JIMMA, ETHIOPA,

Eden Yitna, MSc., Department of Biomedical Science, Physiology unit, Jimma University; Andualem Mossie ,PhD., Department of Biomedical Science, Physiology unit, Jimma University; Alemeshet Yami ,MD., Department of Internal Medicine, Jimma University.

Introduction: Asthma is a chronic inflammatory disorder of the respiratory system of the body. About 300 million people worldwide were affected by asthma leading to as approximately 250,000 deaths per year. This study deals with the effect of khat on bronchial asthma based on clinical parameters for the assessment of asthma severity and management.

Objective: To investigate the effect of khat on bronchial asthma in Jimma University Specialized Hospital (JUSH) Adult Chest Clinic, Jimma, Ethiopia.

Material and Methods: A comparative cross-sectional study was conducted in JUSH Adult Chest Clinic on 170 asthmatic patients with a 1.4 to 1 ratio of non-chewers to chewers between November 2010 and January 2010. Interviewer administered questionnaire, patient history and pulmonary function test using Spirometer were used to collect the data. That were entered and analyzed using SPSS version 16. Descriptive statistics, ANOVA, logistic regression, student test, and chi square statistical models to see the association between clinical parameters and khat chewing status.

Results: Of 170 asthmatic patients 72 were chewers and 98 were nonchewers. Frequent asthmatic symptoms were seen in 23 (31.9%) of the chewers and in 43 (43.9%) of nonchewer asthmatic patients (χ^2=2.488,p=0.11).A less frequent use of β_2 agonist was observed in 42 (58.3%) of the chewers and in 53 (54.1%) of the nonchewer patients (χ^2=2.678,p=0.012). Less frequent night time and chewing status was found to be positively associated with the prevalence [AOD=0.633,CI (1.778,3.059)] The mean predicted personal best of forced expiratory volume in one second (FEV$_1$%) for chewers and non chewers was 62% and 46% respectively while their predicted personal best peak expiratory flow rate(PEFR%) was 40% and 26%.

Conclusion: Chat chewing asthmatic patients had better predicted personal best of FEV$_1$ and PEFR than nonchewers with a less frequent night time asthma attack.

Abstract 5

PREVALANCE OF SUBSTANCE USE AND ITS DETERMINANTS AMONG HIGH SCHOOL STUDENTS IN ADDIS ABABA, *Dawit Teshome* (B. Pharm)

Background: Drug addiction, particularly among teenagers and young adults, has become a serious public health problem globally. Unpublished report summary on illicit drug user, trafficking and production from Federal Police, Addis Ababa also showed that a progressive increase of cannabis user defendants from 358 to 738 charges between 2006/7 to 2008/9. Of which students' involvement account the highest one and was found progressive in three consecutive years.

Objective*:* To estimate the prevalance, identify determinants, describe academic and sexual behaviour influence of substance use among high school students in Addis Ababa.

Methods*:* School based cross sectional study design was employed using both qualitative (FGDs and key informant interviews) and quantitative methods of data collection techniques from November to December, 2010. Anonymous, self administered questionnaire were distributed in a class room for a total of 2,760 regular grade 10 and 12 students of 2010/11 academic year selected from government, public, private and mission owned high schools based on proportionate to size and stratified cluster sampling.

Result: Lifetime and 30 days prevalence of substance use i.e. alcohol drinking, cigarette smoking, *khat* chewing, shisha and cannabis smoking was found to be 45.7% and 26.5%, 11.5% and 5.6%, 16% and 7.8%, 8.6% and 5%, 4.5% and 2.8%, respectively. Current alcohol drinking rates was positively associated among students aged 18 (AOR= 2.028; CI (1.157 - 3.557), and 19 and above (AOR= 2.520; CI (1.339 - 4.743) years compared to those aged 14 - 15 years. In addition, getting pocket money (AOR= 1.457; CI (1.118 - 1.898)), having shisha smoking family and friends (AOR= 2.259; CI (1.194 - 4.274) and AOR= 1.857; CI (1.178 - 2.929) respectively), and having alcohol drinking friends (AOR=1.724; CI (1.248 - 2.380)) were also positively and significantly associated. Positive association was also found among general secondary school students compared to preparatory for current alcohol consumption (AOR=1.811; CI (1.305 - 2.513)). In contrast, being protestant Christian and living with relatives or siblings were found to be protective for 30 days alcohol use ((AOR= .629; CI (.432 - .918) and AOR= .466; CI (.255 - .851)), respectively).

Regarding current cigarette smoking, being male gender only was found positively associated (AOR=1.870; CI (1.016 - 3.443)). In contrast, being Islam (AOR=.236; CI

(.077 - .725), having alcohol drinking family (OR=.374; CI (.186-.752)), and cannabis smoking friend (AOR=.417; CI (.183-.950) was found to be protective.

With respect to current *khat* chewing, males (AOR= 1.807; CI (1.106 - 2.950)), aged 18 years (AOR=4.007; CI (1.022 - 15.704)), having alcohol drinking close friend (AOR = 2.584; CI (1.359 – 4.914)), and being general secondary school student (AOR=1.923; CI (1.031 - 3.589)) was positively associated. Multivariate logistic regression analysis also showed that students having shisha smoking family (AOR = 2.719; CI (1.078 – 6.858)), and being general secondary school student (AOR=3.265; CI (1.287 – 8.280)) were found more likely to be current shisha smoker. Furthermore, living with relatives or siblings (AOR= .061; CI (.009 - .433)) and being private school students was found to be protective for current cannabis smoker unlike to having shisha smoking friend positively associated with cannabis smoking.

Among all high school students surveyed, 412 (16.2%) and 149 (5.9%) of the students were found having sexual experience at least once in their lifetime and 30 days prior to the survey, respectively. More than half (52.5%) of sexually active students have had multiple (two and above) sexual partners. Beside this, 47.3% of sexually active students have had sexual intercourse without condom. Among students who had sexual intercourse without condom, 112 (57.4%) were current alcohol drinker; 41 (21%) were current cigarette smoker; 56 (28.7%) were *khat* chewer; 39 (20%) current shisha smoker; and 29 (14.9%) were cannabis smoker.

Poor academic achievement was associated with lifetime substance use except *khat chewing* in multivariate analysis. Out of 2,527 students, a student was found to be truant for 1.42 days (SD ±2.962) ranging from 0 to 30 days on average for the past thirty days prior to data collection.

Conclusion and recommendation: Substance use among high school students in Addis Ababa is an emerging public health concern despite it is low compared to similar studies reported by others. Both lifetime and 30 days prevalence was also found higher among males and preparatory school students compared to females and general secondary school, respectively. Male gender, age, family, close friends, pocket money, being general secondary school student and poor academic performance was found associated with students substance use behaviour. Public health intervention targeted at youth problem behaviour and its determinants need to be developed and implemented.

Keywords: Substance use; alcohol; cigarette, khat, shisha; Cannabis.

Abstract 6

HEALTH PROVIDERS' PRACTICE AND CARETAKERS' PERSPECTIVE ABOUT MEASLES IMMUNIZATION IN FOUR REGIONS OF ETHIOPIA _Kebede Deribe_, MPH _Amare Deribew MD, MPH, Fiona Braka MD, Yohannes Ababu MD, Samir Sodha MD_

Background: Targeted training of health workers and tailored messages for caretakers an important for implementing supplementary immunization activities (SIAs). This brief assessment was conducted to assess the knowledge, attitude and practices of caretakers and health workers with regard to measles immunization and SIAs.

Methods: The assessment employed quantitative and qualitative data collection methods. Four regions of the Ethiopia were included. Criterion for the regions included frequent measles outbreak, different levels of performance in immunization and the difference in the social mixes of the communities. For the qualitative survey, a total of 16 focus group discussions drawn from among the caretakers were organized. For the quantitative survey, 165 health institutions were included for observation and for interview of health workers.

Results: Of the total of 165 health workers interviewed, about 55% of them knew about the benefits of taking additional doses of measles vaccine. Only one third of the health workers knew the site of injection of the vaccine. About 90% of the health workers did not know how to estimate vaccine quantity needs. Seventy-one percent of the health institutions had experienced shortages of the vaccines in the proceeding one year. Observation also confirmed that 31% of the health institutions did not have all the vaccines at the time of the survey.

The caretakers in all the study sites were aware of measles and its typical symptoms. Most of the caretakers knew the benefits of routine measles immunization and had positive attitude about immunization. However, the survey identified that many of the non-illiterate people in the rural areas did not want to have their children vaccinated because of a lack of awareness about the benefits of the vaccines and fear of its side effects. Measles are perceived as one of the most severe diseases that can kill children immediately. However, for children who have already developed measles, parents in all regions preferred traditional treatment to the modern one. Health workers were the main source of information about measles and immunization across regions. However because of poor and ineffective communication, their messages were not retained by caretakers.

Conclusions: The study found poor knowledge among the health workers regarding most of the immunization tasks. Lack of awareness and fear of side effects of vaccines were the major barriers of immunization. Hence, Behavioral Change Communication (BCC) should be given to the public through mass media along with refresher training to health workers on key immunization practices.

Abstract 7

EVALUATION OF CORE GROUP POLIO PROJECT IN ETHIOPIA: COVERAGE IN ROUTINE IMMUNIZATION AND SUPPLEMENTARY IMMUNIZATION ACTIVITIES,

Filimona Bisrat, MD, MPH

Background: Immunization against vaccine preventable diseases is one of the most cost-effective public health interventions in reducing child mortality, morbidity and disability. Ethiopia has started implementing of the global Polio Eradication Initiative (PEI) in 1996, and infants and children are immunized against polio through routine immunization programs at national or sub-national immunization days. Funded by the USAID, the CORE Group Polio Project (CGPP) in Ethiopia was launched in 2000 to implement community-based activities to increase polio immunization coverage among children under the age of five in 55 *woreda*s in seven regions at the country. Most of the intervention woredas are located in hard to reach, pastoralist and border areas where immunization coverage is very low.

Objective: This study was intended to determine immunization coverage among children aged 12-23 months old, to compare baseline and midterm evaluation estimates, to determine knowledge and attitudes of mothers/caretakers about polio and acute flaccid paralysis (AFP) surveillance and to identify barriers against polio immunization in selected *woreda*s of the CGPP.

Methodology: A cross-sectional quantitative study complemented by a qualitative method was used for data collection. The CGPP's implementation regions were divided into three operational categories: agrarian, semi-pastoralists and pastoralists, and the modified WHO 30 by 10 cluster sampling technique was used to select 882 households with at least one child between 12-23 months of age in 90 clusters. A pretested structured interviewer-administered questionnaire was used for data collection. Data were entered into an electronic database using EPI Info version 6.04d and analysis performed using SPSS version 15.0.

Results: The percentage of children who ever had a vaccination card significantly increased from 75.1% in the baseline to 83.3% in the midterm evaluation. Using vaccination card only, BCG coverage increased from 1.3% to 35.3% and OPV0 coverage from 9.1% to 16.7% (p<.001), OPV1 from 32.1% to 36.6% (p=.02), OPV2 from 29.3% to 35.5% (p<.001) OPV3 coverage too showed a significant increase (p<.001). The coverage of fully vaccinated children by card plus recall was 63%, whereas the percentage of non-vaccinated children was 15%. The coverage of BCG was 80.6%, OPV0 40%, OPV1 84.2%, OPV2 82.2%, OPV3 73.4%, pentavalent1 83.1%, pentavalent2

80.7%, pentavalent3 73.1%, and measles was 67.7%. The major reasons cited by mothers/caretakers for vaccination defaulters and for vaccinating included: unaware of vaccination site/time, unaware of the necessity of vaccination and "vaccinators did not come to the village. About 65% of the community volunteers said that the first polio vaccine should be given to a baby within the first two weeks of life while 30.9% said it should be given two weeks after birth. Overall, the findings of the focus group discussions and the in-depth interviews highlighted several barriers to routine immunization and polio vaccination. The distance of health facilities, transportation problems, shortages of health workers at health facilities, lack of awareness about the benefits of vaccination, mothers' high workload and vaccine stock-outs were the main barriers cited by the study participants. The contribution of the CGPP project in strengthening the quality and coverage of both routine immunization and polio vaccination during campaigns was acknowledged. However, several problems, such as poor cold chain management and lack of adequate resources were identified.

Conclusion and Recommendations: The findings of this study suggested that the coverage of routine immunization by card or card plus recall significantly improved in almost all regions. This should be maintained by the project. However, strong health education programs about polio vaccination should be developed so that parents are not afraid of having their children vaccinated during routine and/or polio campaigns. It is also a necessary for substantial work in informing and educating the community about acute flaccid paralysis and its main signs in order to strengthen community-based surveillance. A mechanism should be in place on the importance of retaining vaccination cards. Efforts to retain and support community volunteers must be strengthened. The quality of routine and campaign vaccination services must be improved by strengthening the cold chain system of the health facilities.

Abstract 8

FACTORS AFFECTING IMMUNIZATION STATUS OF CHILDREN AGED 12-23 MONTHS IN AMBO WOREDA, WEST SHEWA ZONE OF OROMIA REGIONAL STATE,

Belachew Etana (Bsc, MPH), Wakgari Deressa (PhD)

Background: Vaccination is a proven immunization tool in preventing and eradicating communicable diseases. Despite the rise in global immunization coverage, many children around the world especially in developing countries still remain unvaccinated. In 2007, approximately 27 million infants worldwide were vaccinated against the common childhood diseases and yet 2-3 million children die of vaccine preventable diseases. About 1 million children in Ethiopia were not vaccinated in 2007 and only 20% of the country's children are fully vaccinated in 2005.

Objective: To assess immunization coverage and factors affecting immunization status of children aged 12-23 months.

Method: A cross-sectional community-based study was conducted from January to February, 2011 in Ambo Woreda in West Shewa Zone of Oromia regional state using modified WHO EPI cluster sampling method. A total of 536 children of aged between 12-23 months from 536 households were selected from 8 rural and 2 urban kebeles. Data were entered in to the computer using EPI-Info version 3.5.1 and analyzed by SPSS version 16 statistical software package.

Results: About 96% of mothers heard about vaccination and vaccine preventable diseases and 79.5% knew correctly the benefit of immunization. About 36% of children were fully vaccinated by card plus recall, but only 27.7% were fully vaccinated by card alone and 23.7% children were unvaccinated. The study revealed that children are more likely to be vaccinated if the child is male (Adjusted Odds Ratio [AOR]=1.8: 95% CI: 1.1, 3.1), health institution born (AOR=2.3, 95% CI, mothers' followed ANC (AOR=2.4 95% CI: 1.2, 5) and mothers' knowledge of the correct age at which begins (AOR=2.5 95% CI: 1.3, 4.7) and ends (AOR=2.6 95% CI: 1.8, 5.7) immunization. Similarly, children whose mothers attended ANC (AOR=2.1 95% CI: 1.03, 4), children born in health facilities (AOR=2.1, 95% CI: 1.3, 3.5), children, whose mothers knew the age at which the vaccination begins (AOR= 2.4 95% CI: 1.5, 4) and completes (AOR=5.4, 95% CI: 2.6, 10) were significant predictors of full vaccination among children aged 12-23 months.

Conclusion: There was low immunization coverage among children aged 12-23 months in the study woreda. Antenatal follow up, institutional delivery and knowledge of mothers about the age at which a child begins and complete the vaccination are significant

predictors of child immunization status. The woreda should work to raise awareness of the community on immunization, antenatal care and institutional delivery services and should increase ANC follow up, which in turn increase the immunization coverage among children.

Abstract 9

ASSESSMENT ON PREVALENCE OF ANTENATAL DEPRESSIVE DISORDERS AND ASSOCIATED FACTORS AMONG ADAMA HOSPITAL ANTENATAL CLINIC ATTENDANTS IN ADAMA, ETHIOPIA, **2011** *Martha Assefa, MSc, Assela School of Health, Nursing Department, Adama University*

Background: Prenatal depressive disorders are found with significantly higher prevalence rates in low income countries and are associated with socio-economic and socio-cultural factors.

Objective: The main objective of this study was to assess the prevalence of ante-natal depressive disorders and associated factors among Adama Hospital ANC attendants.

Method: A hospital-based cross-sectional study involving a total of 23 pregnant ladies was conducted from March 1st to April 22, 2011 at Adama Hospital; East Shoa, Central Ethiopia.. Systematic random sampling procedure was employed. Pretested BDI standard and a structured questionnaire were used to collect the data. Data entry was done with SPSS for Windows version 15 and analyzed using logistic regression and odds ratio.

Result: A total of 231 pregnant women were interviewed with 95% response rate. The mean age was 26.32. About 56.7% (n=131) were in third trimester and 45% were nullipara. In relation to pattern of current pregnancy, unwanted pregnancies accounted 42% (n=97). Prevalence rate of antenatal depressive disorders was found to a 31.2%. Marital conflict [AOR=22.68, CI (3.61, 142.33)], previous abortion [AOR=2.86 CI (1.13, 7.24)], fear of pregnancy complications [AOR= 3.49 CI (2.21, 22.17)], economic problem [AOR=9.52 CI (2.68, 33.78)] and unwanted pregnancy [AOR=6.99 CI (2.21, 22.17) were found having strong association with depressive disorders. However, socio-demographic factor were not found to do so.

Conclusion: Prevalence rate of antenatal depressive disorders was high and alarming among Adama Hospital antenatal clinic attendants. The factors in association were economic problems, obstetric, psychosocial and ANC service related. Adama Hospital should integrate mental health service with existing maternal and child health care. In addition, screening of ANC attendants for potential risk factors of antenatal depressive disorders could be crucial to avoid the impending dangers through early detection.

Abstract 10

DETERMINANTS OF INFANT MORTALITY IN KERSA DEMOGRAPHIC AND HEALTH SURVEY :CASE CONTROL STUDY, *Kedir Teji, MPH, Haramaya university; Nega Assefa MPH, PhD Candidate, Haramaya university and Tesfaye Gobena, MPH,PhD Candidate Haramaya university.*

Infant and child mortality have long been used as indicators of the level of socioeconomic development of a country. Various studies have been conducted to show factors affecting child mortality in both developed and developing countries. These factors are socio-demographic, socioeconomic and environmental such as ethnicity, housing conditions, crowding, availability of latrines, and early termination of breast-feeding.

Objective: This study was concerned with the determinants of infant mortality in Kersa District, Oromia Regional State of eastern Ethiopia from January 2010 to May 2011.

Methodology: A case-control study was carried out among 200 cases and 800 controls . Cases were defined as all deaths within the first year of life. As controls, there were four selected children born within ±1weeks the baby that died and the same sex, living in the same area and did not die within the first year of life. Socio demographic economic and environmental factors were assessed for all live births in the 2007-2010 period with a completed live-birth registration and whose mothers lived in the district. Multiple variable analyses were performed using logistic regression.

Results: Eighty five (42.5%) of the cases were female and 115 (57.5%) were male. Regarding the mortality, all deaths were registered as the Muslims (200 100%), Oromo by ethnicity (198 99%) and married (176 88%). The variables were: gestational age less than 37 weeks, educational status of mothers (illiterate), facility of health care (treatment out of health institutions), expenditures less than 500, unprotected source of water, mother age at current delivery (less than 20 years) and presence of next to last child were found to be predictors of infant mortality after controlling for possible confounders.

Conclusion: Illiteracy of mothers, early age of delivery, unsanitary waste disposal were associated with infant mortality. Improved maternal education, environmental sanitations, safe water supply, reproductive health care and decline in the prevalence preterm delivery, and qualified delivery care can recommend.

Keyword: Infant mortality (public health), environmental, socioeconomic and demographic risk factors, epidemiology, analysis.

Abstract 11

VIRAL HEPATITIS CO-INFECTION IN NEWLY DIAGNOSED HIV-1 RECENT AND LONG STANDING INFECTIONS AMONG VCT ATTENDEES, ADDIS ABABA, ETHIOPIA, _Jemal Ali_, _Huda Mohammed, Desalegn Tegabu, Yohannes Mengistu, Beverley Singh, Adrian Puren, Dawit Wolday_

Background: HIV-1 and HBV or HCV co-infections pose difficulties on clinical management and complicate outcome of treatments. Unlike other opportunistic co-infections ones there are important causes of co-morbidity and non-AIDS death. Moreover, these three infections share the same mode of transmission and the co-infection remains a growing public health problem.

Objective: To determine the prevalence of hepatitis B virus (HBV) and hepatitis C virus (HCV) co-infection among newly diagnosed HIV positive individuals.

Methods: Initial HIV screening was done based on current national quick HIV screening algorithm at the Voluntary Counseling and testing (VCT) center. All specimens were found to be positive were stored at 20° C until analysis. Repository samples were retrieved and thawed for analysis, and verified by two conventional EIA for consistency then discrepant results of the two EIA were confirmed by Western Blot. Using the BED IgG capture EIA, recent and long standing infections were differentiated (Mean Window detection 155 days). Further the samples were subjected to serological test of HBV and HCV. Data were entered in to SPSS version 16.0, statistical analysis was performed, and for comparison Pearson's Chi- square or Fisher's exact test done.

Results: Of the total 4492 VCT attendees in six month, 360 (8.0%) samples were positive by the set algorithm, 42 (0.93%) were recently infected based on the BED IgG capture EIA and yielded to an estimated incidence of 2.36 % per year [95% CI, 1.7-3.1]. HIV co-infection with HBV and HCV were 23 (6.4%) and 3 (0.83%) respectively, with only 1 (0.31%) individual having triple infections. Among the longs standing HIV infected individuals, 21 (6.6%) and 3 (0.94%) were co-infected with HBV and HCV, respectively. Co-infection with recently HIV infected individuals was only with HBV, 2 (4.8%). There was no significant difference for being co-infected with HBV among recent HIV and long standing infection, χ^2 = 0.21, P > 0.64 and for HCV co-infection. There was significant difference between recent and long-standing HIV infection, P > 0.68.

Conclusion: HIV and hepatitis B co-infection is high relative to HIV and hepatitis C co-infection in this setting and this incidental population. There was no significant difference of hepatitis B or hepatitis C co-infection among recent and long standing HIV infections. It is important to screen all HIV positive individuals for HBV and HCV at any stage of the

HIV infection. In addition a prospective large scale study is necessary to resolve the concomitant or co-infection of these agents for a better clinical care in treatment and set as clinical entity.

Key words: Co-infection; HIV-1; viral hepatitis

Abstract 12

HIV PREVALENCE AND ASSOCIATED FACTORS AMONG UNIVERSITY STUDENTS OF DIRE DAWA UNIVERSITY, EASTERN ETHIOPIA 2009, *Birhan Mengistu, Gondar University and Addis Continental Institute of Public Health; Prof. Yemane Birhane, Addis Continental Institute Of Public Health; Dr. Belaineh, Addis Continentatl Institute of Public Health*

Background: Epidemiological studies have shown that the peak incidence of HIV/AIDS occurs in young people aged 15-24 years. Sexual behaviors like early sexual debut, multiple sexual partners, inconsistent use of condom increase the risk of HIV/AIDS among youth. The students in University enjoy the freedom of living outside the guidance of their parents; if this is not managed properly it increases the likelihood to have of risky sexual behavior and HIV infection. It is imperative to monitor HIV among young people in universities for proper and timely action.

Objective: This research objective was to determine the prevalence of HIV infection among Dire Dawa university students and identify risk factors for HIV sero-positivity.

Method: A cross sectional study with internal comparison was conducted among students of Dire Dawa. A self administered questionnaire was used to gather relevant information and blood test was conducted for HIV antibody. The two information were linked anonymously. Qualitative data was collected using Focus group discussion.

Result: The prevalence of HIV was 2.5% (95% CI 1.5, 3.5) (2.3% for female and 2.7% for male) with no significant difference between male and female. The students having sexual affair with same sex or both sexes were significantly 10.45 times (95% CI 1.93, 56.41) to be exposed to HIV than those having sexual affairs with only opposite sex. Having non-regular partner is significantly associated with HIV positivity among sexually active (OR=6.35 and 95% CI 2.2, 18.3). Drinking alcohol and chewing chat was a risk factor for commencing sexual intercourse among male with (OR=2.73 and 95% CI 1.72, 4.33) and (OR=2.02 and 95% CI 1.19, 3.42) respectively.

Conclusion: The students in the university are at risk of HIV infection, it is necessary to target them earlier in the high school and later when joining college by building their knowledge and skill to avoid risky sexual behavior.

Abstract 13

MORTALITY AND ITS PREDICTORS AMONG HIV POSITIVE CHILDREN ON ANTIRETROVIRAL THERAPY AT A REFERRAL HOSPITAL IN NORTHWEST ETHIOPIA *Digsu Negese MPH, Berihun Megabiaw MD, MPH, Tadesse Awoke MSc.; Dep`t of Epidemiology and Biostatistics, CMHS, University of Gondar*

Introduction: An estimated 2.5 million children were living with HIV/AIDS at the end of 2009 world-wide 2.3 million of them in sub-Saharan Africa. Without treatment, a third of these children with HIV will die of AIDS before their first birthday. Hence, it is important to assess the magnitude and its predictors of mortality among HIV positive children.

Objective: To find predictors of mortality among HIV positive children on Antiretroviral Therapy at Felege Hiwot Referral Hospital.

Methods: Institution-based retrospective follow up study was carried out among HIV positive children from January 1st, 2006 - March 31st, 2011. Information on relevant variables was collected from charts and registries. Kaplan-Meier curve was used to estimate the cumulative survival of children and Log rank tests to compare survival curves between the different categories of the explanatory variables. Both bivariate and multivariate Cox proportional hazards models were used to identify predictor variables.

Results: A total of 549 patient records were included in the analysis. The mean age at initiation of treatment was 6.35 $\pm$ 3.78 years with a median follow up period of 22 months. At the end of follow up, 41 (7.5%) died and 384 (69.9%) were alive. Mortality during the entire follow-up period was 4 deaths per 100 child-years. The cumulative probabilities of survival at 3, 6, 12, 24, and 60 months of ART were 0.96, 0.94, 0.93, 0.92 and 0.83 respectively. Most of the deaths occurred within the first 6 and 12 months of ART (75.6% and 90.2% respectively). No being on cotrimoxazole preventive therapy (AHR=4.74, 95% CI: 2.17, 10.34), having haemoglobin level < 10gm/dl (AHR=2.44, 95% CI: 1.26, 4.73), absolute CD4 cell count below the threshold for severe immunodeficiency (AHR=2.24, 95% CI: 1.07, 4.69) and delayed/regressing developmental milestone at baseline (AHR=6.31, 95% CI: 2.52, 15.83) were predictors of mortality.

Conclusion and Recommendations: The mortality rate was comparable to many sub-Saharan African studies but there was a high rate of early mortality and hence close

follow up of HIV positive children on ART particularly during the first six months is important to reduce early mortality.

Abstract 14

SURVIVAL AND PRIDICTORS OF MORTALITY AMONG ADULTS ON ANTIRETROVIRAL THERAPY IN SELECTED PUBLIC HOSPITALS IN HARAR, EASTERN ETHIOPIA, *Tesfaye Digaffe, MPH in Epidemiology, Department of Medical Laboratory Sciences, Haramaya University; Berihanu Seyoum, MSc., Department of Medical Laboratory Sciences, Haramaya University; Lemessa Oljira, MPH., Department of Public Health, Haramaya University.*

Background*:* There are several predictors of mortality for patients on anti-retroviral treatment (ART): viral load, CD4 count, total lymphocytes, body mass index (BMI) and adherence. However, there is no single proven model for delivering ART. This highlights the urgent need for generating regionally suitable data. A few years back, Ethiopia was planning for a large-scale ART program.

Objectives*:* To analyze the survival and predictors of mortality in a cohort of adult HIV patients who started ART within three years starting from September 11, 2005 in Harar, Eastern Ethiopia.

Methods: A retrospective cohort study was conducted among a cohort of People Living with HIV/AIDS (PLWHA) on ART in three hospitals in Harar. In this study 655 PLWHA (age > 14 years) who started ART between September 11, 2005 and September 10, 2008 (accrual period) was included. The data were reviewed for additional two consecutive years. Appropriate survival analysis methods were used. The Kaplan-Meier model was used to estimate the survival probability after ART initiation; and Log rank tests was used to compare survival curves. The Cox-proportional Hazards model was used to assess the relationship between baseline variables and mortality and calculate hazard ratios.

Results*:* Among a total 655 adult PLWHA who were naïve to ART, 438 (66.9%) were female and the median age of patients were 33 years. The median follow-up period was 38 months (Inter Quartile Range (IQR) =27-48). During the follow up period, 74 (11.4%) patients were deceased. The cohort was followed for 1913 Person-Years of observation. Total mortality rate over the follow up period was 3.9 per 100 person-years. Most of deaths (n=36, 49%) occurred in the first 3 months of ART initiation. Three baseline factors could be independently identified: World Health Organization (WHO) clinical stage III and IV (Hazard Ratio (HR) =2.134; 95% CI=1.202-3.791, p=0.01); CD4 counts lower than 50cells/µl (HR=2.344; 95% CI=1.404-3.913, p=0.001); not taking base line Cotrimoxazole Prophylaxis Treatment (CPT) (HR=2.463; 95% CI=1.255-4.834, p=0.009)**.**

Conclusions and Recommendations: Despite optimizing ART delivery in Ethiopia, a proportion of early deaths among patients with very advanced disease are not likely to be preventable with ART. This may require extensive and detailed study in resource poor countries. Thus, a more fundamental issue and the greater challenge is the need for early HIV diagnosis and provision of appropriate longitudinal HIV care prior to ART eligibility.

Abstract 15

ASSESMENT OF NUTRITIONAL STATUS AND ASSOCIATED FACTORS AMONG ADULTS LIVING WITH HIV/AIDS IN ADDIS ABABA, ETHIOPIA, _Betelehem Belay, Bsc, MA., Addis Continental institute of public Health; Dr Alemayehu worku, Phd., Department of Community Health Addis Ababa University; Dr Amare Worku, MD, Mph, Addis Continental institute of public Health; from December 2010 to February 2011_

Background: Malnutrition among people living with HIV remains a major challenge to achieve the full impact of intervention. However few studies are dedicated to show the magnitude and the associated factors with malnutrition among these patients.

Objective: The objective of this study was to assess nutritional status of adults living with HIV and associated factors.

Methods: The study used facility based cross sectional design. Multi stage sampling was used. The calculated sample size was distributed to the selected health centers with probability proportional to size sampling technique and the study subjects were enrolled systematically. Respondents were 775 HIV positive adults who had Pre ART follow up from December 2010 to February 2011 in 10 selected health centers of Addis Ababa. Data were collected using structured interviewer administered questionnaire by nurses and health officers working in the comprehensive care clinics of the selected health centers. The data were double entered, compared and cleaned using EPI info software and analysis was done using SPSS window version 15.Bivariate analysis was done to identify factors that are associated with malnutrition and multivariate analysis was done to identify factors that are independent predictors of malnutrition among these patients.

Result: The prevalence of malnutrition was 23.1% (95%CI 20.2, 26.1). Severe, moderate and mild malnutrition was detected on 4.6%, 5.2% and 14.2% of the respondents respectively. Using multivariate analysis eating problem [AOR= 4.2; 95%CI 2.7, 6.3], reason for visit [AOR=2.5; 95%CI 1.6, 4.1], functional status [AOR=2.1; 95%CI 1.24, 3.4] and sleeping hungry within the last 4 weeks [AOR=2.5; 95%CI 1.1, 5.7] are found to be independent predictors of malnutrition.

Conclusion and Recommendation: Malnutrition is prevalent among patients infected with HIV. Integrating and strengthening nutritional assessment and counseling to the routine chronic care services for People infected with HIV should be the direction for both clinicians and program planners.

Abstract 16

NUTRITIONAL STATUS OF ADOLESCENTS IN SELECTED GOVERNMENT AND PRIVATE SECONDARY SCHOOLS OF ADDIS ABABA, ETHIOPIA. *Yoseph G/Yohannes, BSc, MPH, Mizan-Tepi University; Solomon Shiferaw, MD, MPH, School of Public Health, Addis Ababa University.*

Background: Nutrition and its epidemiologic transition has its own impact on changes in diet and activity patterns, leading to the development of a double burden of malnutrition. Changes in nutritional intake combined with increasingly sedentary life styles and increasing urbanization have led to the emergence of chronic diseases as a major new health threat.

Objective: Compare nutritional status of adolescents and analyzing the risk factors associated to with overweight/obesity in selected government and private secondary schools of Addis Ababa.

Methods: A comparative cross-sectional study consisting of 1024 adolescents from selected government and private secondary schools of Addis Ababa (512 each) was conducted from December 29, 2010 - February 28, 2011. Information on socio-demographic data, eating habits and physical activity were collected using interviews. Measurements of weight and height were made using standardized weighing scales and measuring boards. Height-for-age and BMI-for-age were compared to the 2007 WHO growth reference. Data were entered using Epi info version 3.5.1, WHO AnthroPlus and analyzed using SPSS version 16.

Results: Overall, the prevalence of stunting (low height-for-age), underweight (low BMI-for-age) and overweight/obese (high BMI-for-age) in all school adolescents were 7.2% (95% CI; 5.8, 9.0), 6.2% (95% CI; 4.9, 8.0) and 8.5% (95% CI; 6.9, 10.4), respectively. The study showed that adolescents in government schools were generally significantly more likely to be undernourished (stunting: 51(10.0%) versus 23 (4.5%) and underweight: 36 (7.0%) versus 28 (5.5%)) compared to their counterparts in private schools (P-value <0.05). By contrast, more adolescents in private schools were overweight/obese compared to those in government schools 65 (12.7%) versus 22 (4.3%); OR=3.2 (95% CI; 1.9, 5.3).

Conclusions: Findings of the present study indicate that both under and over nutrition are important problems of adolescents in both government and private secondary schools. Students of Addis Ababa being in a private school, lacking daily breakfast and

consumption of animal products more than once a day are significantly associated with the condition of being overweight/Obese during adolescence.

Abstract 17

ASSESSMENT OF NUTRITIONAL STATUS AND ITS DETERMINANTS AMONG CHILDREN AGED 6-59 MONTHS IN DERA TOWN, ARSI ZONE, ETHIOPIA *Abdo Bedru, MPHE, Ebrahim Mohammed, Bsc, Adanech Wakjira,Bsc, Desta W/Sillassie,Bsc, Firehiwot Wakene, Bsc, Shelema Lemi, Bsc.*

Background: Malnutrition is still unacceptably high in most regions of the world. Although the MDGs aims at to reducing the prevalence of underweight among children younger than 5 years by half, the trends of malnutrition are not promising despite the big measures being taken in Ethiopia.

Objective: To assess the nutritional status and its determinants among children aged 6-59 months in Dera town Arsi Zone ,Ethiopia.

Methods: Community-based cross-sectional survey was conducted on sample of 310 children aged 6-59 months. A single proportion formula considering 5% marginal error and 5% nonresponse rate was considered. A pretested structured data collection tool, weight measuring scale and a height measuring board prepared by ''UNICEF'' were used. A multistage cluster sampling was used to select study subjects. Data was analyzed using Epi-Info 2002. Descriptive statistics was used to explore the data and univariate analysis was done to determine factors influencing malnutrition. Logistic regression was used to determine the independent predictors of malnutrition.

Result: The response rate of this study was 98.8%. The overall malnutrition prevalence was found to be 53.9%.It revealed that 19% of children were suffering from underweight, 11.3% were suffering from acute malnutrition (wasting) and 23.6% were suffering from chronic malnutrition (stunting). The main predictors for malnutrition were found to be the young age of the care giver, birth interval (at most 2 years), no prenatal care, no exclusive breastfeeding practice, bottle feeding, feeding frequency (less than three time per day), no or partial immunization and early initiation of complementary feeding. Source of water, sex of the child, availability of toilet, and febrile illness history were not statistically significant.

Conclusion: Almost all predictors of malnutrition identified can be addressed and prevented using a contextualized holistic community program intervention integrated with strengthening the health delivery facilities. Generating a healthy child at household level through active involvement of care givers and primary health care actors complemented with expansion of the current measures is crucial.

Abstract 18

THE EFFECT OF IODINE DEFFICIENCY ON ACADEMIC PERFORMANCE OF SCHOOL CHILDREN IN WOLAITA SODO, SOUTHERN ETHIOPIA, *Eskinder Wolka* BSc, MPH, *Wolaita Sodo University and Solomon Shiferaw, MD, MPH., School of Public Health, Addis Ababa University.*

Background: There are many reasons for children to underperform at school: poor nutritional status, below average intelligence, socio-cultural environment and other environmental factors. Iodine deficiency disorder is a public health problem worldwide and it is the main cause of preventable brain damage in children. Although there are studies on iodine deficiency in the country, its effect on academic performance is not well documented.

Objective: This study intended to assess the effect of Iodine deficiency on academic performance of school children in Wolaita Sodo town, Southern Ethiopia.

Methods: School-based comparative cross-sectional study on a sample population of 270 children with goiter and 264 without goiter was conducted in a purposively selected primary school in Sodo, from December 2010 to February 2011. Total students in each class were examined for the presence of goiter and classified based on WHO's guidelines. For every child with goiter, another without goiter was selected from the same class. A pre-tested structured questionnaire was used to collect data on socio-demographic factors and information on students' academic performance was obtained from the school record. Multivariate logistic regression analysis was employed to see the effect of independent variables on the outcome variable. Ethical clearance was obtained from the Research Ethics Committee of School of Public Health, College of Health Sciences, Addis Ababa University.

Result: Among children with goiter, a higher proportion (54.8%) were female and proportion increased with age. Foods consumed (cabbage and cassava) were significantly associated with goiter (AOR=1.9; 95%CI=1.2, 2.9). The odds of low school performance were higher among, children whose fathers were illiterate (AOR=1.9; 95%CI=1.1, 3.5), with absenteeism of more than four days (AOR=1.5; 95%CI=1.1, 2.21). Goiter was significantly and independently associated with low academic performance (AOR=1.8; 95%CI=1.2, 2.5).

Conclusion and Recommendation: Goiter rate is significantly associated with consumption of goitrogens. Having goiter had a negative effect on academic performance. Awareness on endemic goiter and its impact on school performance and

emphasis on prevention and control by the concerned bodies is recommended to alleviate the problem.

Key words: Iodine deficiency, endemic goiter, academic performance, Wolaita Sodo.

Abstract 19

AWARENESS AND UTILIZATION OF MODERN FAMILY PLANNING METHODS AMONG HOMELESS WOMEN IN NORTHWEST ETHIOPIA, Berihun Megabiaw (MD,MPH), CMHS, University *of Gondar.*

Background: It is of immense importance that women at any physical, social or economical status decide on their family planning options. The option of which method to choose and use depends partially on the user`s knowledge and socioeconomic status.

Objectives: This study set out to find out the knowledge, practice and associated factors homeless women regarding modern family planning in two cities of Northwest Ethiopia.

Methods: A cross-sectional study was conducted on 204 homeless women living in the streets, church/mosque gates or compounds, verandas and plastic slums and isolated camps of Gondar and Bahir Dar cities. Information on independent variables was collected by five trained final year BSc public health students from participants using a structured and pretested questionnaire prepared in Amharic by face-to-face interview after informed consent. The contents of the questionnaire were structured in a logical manner by three sections (socio-demography, knowledge and practice questions about modern contraceptives).To control repeat interviews markings were applied on the right thumb of each interviewed participant.

Data was collected from seven "cluster" sites in the mornings of Sundays and other religious holidays days around Churches and/or Mosques, main road sides, isolated slum areas and at night time after 8:30 PM on the streets where the homeless women were residing. Data was entered into Epi info and analyzed by SPSS version 15. Descriptive statistics and binary/multiple logistic regressions were performed.

Results: The mean age of respondents was 30.9 ± 8.7 years. Of all the 204 women, 98 (48.0%) had a history of pregnancy while living in the streets. Hundred eighty five (90.7%) said they have heard about modern family planning methods and 179 (87.7%) said that it is possible to control birth. Almost half, 96 (47.1%) of the women had already used one of the modern methods and 70 (34.3%) were currently using modern contraceptive methods. The majority (n=52, 74.3%) were using injectible methods followed by oral contraceptive pills and condom (8, 11.4% each) while 10% were on long acting FP methods. Of those women not currently on modern family planning methods, 62 (44.9%) said there need to use in the future. Women aged 25-34, those having

children, those with a history of pregnancy and/or sexual assault while living on the street were more likely to use family planning methods.

Conclusion and Recommendation: Current family planning utilization in this category of women is fairly good. Health education and expansion of family planning programs should focus on isolated segments of women such as street dwellers as there in exists a high unmet demand.

Abstract 20

GENDER-BASED VIOLENCE AND ADVERSE REPRODUCTIVE HEALTH OUTCOMES AMONG WOMEN WITH DISABILITY, _Nigist sebsbie,_ _Postgraduate student at school of public health, Addis Ababa University_

Background: Gender-based violence targeting women hinder women's physical, psychological and social well-being. Despite the fact that gender-based violence has been given a great recognition at present time, studies that indicate its magnitude and impact on disabled women remain scarce.

Objectives: The study tried to measure the magnitude of gender-based violence and its association with adverse reproductive health outcomes among women with disabilities in Addis Ababa.

Method: A cross- sectional survey using an anonymous questionnaire supplemented by focus group discussions was conducted among women with disabilities in selected association of people with disabilities in Addis Ababa. A total of 528 women with selected disabilities were included in the study using convenience sampling. Two focus group discussions were used for the deaf and physically impaired women in order to assess their belief and attitudes towards the issue. The study also looked at experiences of physical and sexual violence using standard WHO Multi-country study questionnaire and its association with adverse reproductive health outcomes.

Result: Among the 528 respondents, the prevalence of physical violence was 40.5% and 30.8% in a lifetime and in the 12 month preceding the study, respectively. Whereas the prevalence of sexual violence in this order being 42.1% in life time and 57.7% in the past 12 month. Both Physical violence (OR (Adj) =2.00 (95%CI: 1.21, 3.31) and sexual violence with OR (Adj) = 4.21 (95% CI: 2.44, 7.25) were associated with Adverse reproductive health outcomes (unwanted pregnancy, still birth and abortion).

Conclusion: Based on the findings of the survey, it can be suggested that gender-based violence (GBV) is a common and serious problem and highly associated with adverse reproductive health outcomes among women with disabilities. Therefore, it is recommended that GBV needs due attention and remedial actions and programs aimed at preventing it must address these identified factors or correlates of violence against women with disabilities.

Abstract 21

FROM TRAUMA TO REHABILITATION AND REINTEGRATION; EXPERIENCES OF WOMEN FACING THE CHALLENGES OF OBSTETRIC FISTULA IN ADDIS ABABA,
Tiruwork Almaw Fenta, MA

Obstetric fistula (OF) causes considerable damage to the lives of women in the developing world. This medical complication is mostly a problem of the poor and the powerless. Interestingly, despite the vast array of published reports on the medical aspects of the complication, no traceable work has been done on the post treatment psychosocial and economic situations of the victims. In this research the post treatment experiences of six women with fistula were analyzed. A. Sen's and M. Nussbaum's capability approach were used as the theory through which to view the problem, the situation of these six women pretreatment, during treatment and post-treatment. Little attention is given to those women who have received treatment from the Addis Ababa Fistula Hospital and reintegrated into society while still suffering from the psychosocial and economical consequences of stigmatization and discrimination. This paper tries to qualitatively investigate such neglect that has significantly contributed to the consequential underestimation in the development of policies and strategies to address the problem. The study also sees these experiences from the women's standpoint and employs further investigation techniques using aspects of intersectionality and other factors based on the highlights of information generated from the perception of the issues of fistula as discussed by the society and media. Thus, the paper argues that exclusion and stigmatization by society worsen the psychosocial and economic challenges of reintegration of victims after treatment. In addition to broadening the knowledge base on OF, the paper sets salient policy interventions deemed necessary to alleviate the challenges of rehabilitation and reintegration of victims.

Abstract 22

ASSESSMENT OF FACTORS AFFECTING PARENTS IN DISCUSSING REPRODUCTIVE HEALTH ISSUES WITH THEIR ADOLESCENT CHILDREN Tesfaye Assbe, MSc, School of Nursing and Midwifery, Haramaya University; Haji Kedir PhD Candidate, Department of Public Health Haramaya University.

Background: Even though sexual activity puts adolescents at risk of various reproductive health (RH) challenges, many adolescents lack strong stable relationships with parents or other adults with whom they talk to get reliable information about their reproductive health concern.

Objectives: The general objective of the study was to identify factors affecting parents in discussing reproductive health issues with their adolescent in off springs Harar town.

Method: Community-based cross-sectional quantitative study supplemented with a qualitative one was carried among families having children aged 10 years and in Harer. In the study took place from April 26-May 7 2010. A total of 751 households were selected using a multistage sampling technique. Data was collected using a structured questionnaire and guided focus group discussion by 12 data collectors from residents of Harer town. Data was analyzed by SPSS version15.0 software package. Descriptive statistics was employed to describe the study population in relation to relevant variables. Odds ratio with 95% confidence intervals and logistic regression was employed to describe the strength of association between the selected study variables by controlling for the effect of possible confounders.

Result: The study showed that from a total of 751 participant parents,a small proportions (28.8%) of them discussed reproductive health issues with their adolescent youngsters. Parents mentioned various reasons for not discussing reproductive health issues. Lack of knowledge 325 (60.7%); no cultural acceptance 133 (24.9%, difficulty of initiating because of fear and shyness 275(51.4%) and the worry that discussing sexual matters with adolescents might encourage premarital sex 177 (33.1%). Educational level, family income, occupation, knowledge, and attitude of parents had significant association with discussion of RH with their adolescents. Male participants were more educated and better discussed (35.92%) than female ones (only 26.52%). This might be

attributed to that education influences discussion of parents of reproductive health issue with their adolescent children.

Conclusion: It can be concluded that, even though parents had basic information on RH, they did not practice in discussing RH issues. It is recommended that Harer town governmental and nongovernmental health workers should play a promotive role in helping parents become effective communicators about reproductive health issues.

Abstract 23

ABORATION-RELATED STIGMA AND WOMEN'S PERCEPTIONS ON SERVICES IN COMPREHENSIVE ABORTION CARE SELECTED SITES IN TIGRAY, ETHIOPIA,
Nuriye Nalan Sahin-Hodoglugil, MD, MA, DrPH, Venture Strategies Innovations; Amanuel Gessessew MD, Mekele University; Yalem Tsegay, Tigray Regional Health Bureau; Ndola Prata, Venture Strategies Innovations.

Objectives: This qualitative study was conducted to understand the reasons for differential use of health facilities for Comprehensive Abortion Care (CAC) services during the pilot project, and the ways in which abortion related stigma and the type of the services affected women's in making decision about abortion.

Methods: Ten focus group discussions (FGD) were conducted with 96 women, living in 10 *kebeles* of the CAC pilot project facilities. FGDs were conducted in the forms as coffee ceremonies, where women were asked about their perceptions about abortion stigma and privacy, conditions under which a woman may seek abortion, and preferences of facilities. In addition, a total of 66 in-depth interviews were conducted with health extension workers (HEWs) (37), abortion service providers (6) working in health centers or hospitals, and key informants (23) from the community.

Results: Women who participated in this study welcomed the availability of safe abortion methods at health posts. Many times, traditional methods of abortion were reported to be used by women, in the absence of safe methods. Men and women had different perceptions concerning the need for preventing an unwanted pregnancy and on abortion. Some men perceived to underplay the importance of being able to avoid having unwanted children that was felt by women. Women also mentioned conflicting abortion with some religious teachings, against abortion or contraception. Privacy came up as a major concern and it was clear that women trusted HEWs for keeping their privacy. One HEW reported, "hiding" woman in her home, if they came for abortion. Both HEWs themselves and the higher level providers of the service supported further training of all HEWs for better abortion services in health posts.

Conclusion: Making comprehensive abortion care services available at the health post is a service that is highly appreciated by women, thereby reducing their resorting to unsafe abortion with traditional methods, which could result in dire health consequences, including death. The different cultural barriers (gender, religious influences, and the like etc.) need to be addressed further at the community level. HEWs will be instrumental in expanding access to safe abortion for reducing maternal mortality due to unsafe abortion.

Abstract 24

UNMET REPRODUCTIVE HEALTH CARE NEEDS AND OCCURRENCE OF UNINTENDED PREGNANCY AMONG HIV POSITIVE WOMEN IN ANTIRETROVIRAL TREATMENT UNITS IN ADDIS ABABA, ETHIOPIA *Girum Zewdu, MSc, addis Ababa Health Burro, Addis Ababa; Dr. Alemayehu Mekonen, MD,MPH, instructor at the Addis Ababa university School of Public Health.*

Background: Reproductive health issues appear to be relatively neglected among HIV positive women. Hence the contribution of contraception as a strategy to reduce mother-to-child transmission is underutilized despite its demonstrated contributions. There are few instances and substantive data on the magnitude of unmet reproductive health care needs and unintended pregnancy among HIV positive women in Ethiopia (Addis Ababa).

Objective of the study: This study assessed unmet reproductive health care needs and unintended pregnancy among HIV positive women enrolled in the ART units in Addis Ababa.

Methodology: The study was undertaken from December 2010 to Feburary2011 using quantitative cross-sectional facility-based approach supplemented by qualitative in-depth interviews on a sample of 548 HIV positive women in the ART follow up units of the city. A systematic random sampling procedure was applied to select study participants. While of pretested structured questionnaire was used to collect data that was analyzed using SPSS version 16.

Result: Unmet demand for contraception in the study was 31%: 25% for spacing and 6% for limiting births. Generally, HIV positive women, who had a higher demand chance contraception were those with sero-discordant partners (adjusted OR: 2.4, 95%CI: 1.04-5.64) and women who had unintended pregnancy after being diagnosed HIV positive (adjusted OR: 10.12, 95%CI: 4.6-22.3). Women with recent CD4 count >200 were less likely to have unmet demand for contraception than those with CD4 count of ≤ 200 (adjusted OR: 0.257, 95% CI: 0.09-0.70).

The proportion of unintended pregnancies to the total pregnancies during the post HIV diagnosis period were 147 (46%); of which 125 (38%) were mistimed and 22 (8%) unwanted. In a multivariate analysis, HIV positive women who had unmet contraceptive (adjusted OR: 14.9, 95%CI: 4.8-46) and those who had ever used emergency contraception (adjusted OR: 4.1, 95%CI: 2-9.2) had a significantly higher chance of experiencing unintended pregnancy.

11% of the women had discussed emergency contraception and safe termination of pregnancy (8%) with the service providers while contraception and condom were most discussed with the providers as reported by 78% of the respondents. Unmet need for safe termination of pregnancy was 37%.

Conclusion: Unmet contraceptive need and reproductive counseling and safe termination of pregnancy were high among HIV positive women in the ART units. As a major manifestation of these, unintended pregnancies were significantly higher among HIV positive women in the ART care units in Addis Ababa; which has implications for vertical HIV transmission. These indicate the need to seek new strategies to address reproductive health care services and hence to satisfy reproductive health care needs of HIV positive woman as well.

Abstract 25

INVESTIGATION OF A LARGE MALARIA OUTBREAK IN SOUTHERN NATIONS, NATIONALITIES AND PEOPLE'S REGION (SNNPR), ETHIOPIA, APRIL 2011, *Abdulnasir A, Alemayehu B, Adamu A, Zegeye H, Haftom H, Henok H, R. Luce. Ethiopia Field Epidemiology and Laboratory Training Program, Addis Ababa University, School of Public Health*

Introduction: Malaria is a major cause of morbidity and mortality in Ethiopia. More than 854,080 cases were reported nationally in 2010. We investigated a suspected outbreak of malaria in Bolosobombe woreda prior to the rainy season to confirm the etiology, precipitating factors, characterize the affected population, and provide guidance for prevention and control measures.

Methods: A suspected case of malaria was defined as any person with fever or fever with one or more of the following symptoms; headache, rigor, back pain, chills, sweats, myalgia, nausea, vomiting or diagnosed clinically as malaria. A confirmed case was a suspected case with a blood smear microscopy result identifying *Plasmodium spp.* parasites. A line list was compiled from daily epidemic reporting forms used to register and collect epidemiological information from cases presenting at 5 health posts and 2 health centers in the woreda. Analysis was performed using Epi-Info and MS-Excel.

Results: From April 12 - 28, 2011, 4096 suspected cases and no deaths were reported in the affected district. The attack rate was of 4.0% and male to female ratio of cases were 1:1. 1763 (43.0%) of cases were 15-44 years of age, 1474 (36.0%) cases were aged 5-14 years, 478 (11.7%) <5 years, 381 (9.3%) +45 years with a mean age of 22.9 years. For confirmation, 100 blood samples were collected and tested by microscopy and 56 were positive; 33 (58.9%) for *P falciparem*, 11 (19.6%) for *P. vivax* and 12 (21.4%) were mixed infections. Planned deltamethrine spraying had not been conducted in the previous 6 months and there had been no insecticide treated bednet (ITN) distribution for the past two years.

Conclusion: A malaria outbreak of mixed *Plasmodium* species did occur in 1 woreda of the SNNPR region. The lack of recent deltametrine spraying or distribution of ITN may have contributed to the outbreak. As part of response

activities there was deltamethrine spraying and ITNs distribution in all affected areas of the woreda.

Keywords: Malaria, malaria outbreak, Ethiopia

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Abstract 26

SURVIVAL OF ROAD TRAFFIC ACCIDENT VICTIMS ADMITTED TO HAWASSA REFERRAL TEACHING HOSPITAL, Debebe Shaweno**,** *Kumera Fentahun, Mahlet Mulugeta, Marta Alemayehu, Meheret Tesfu*

Background: Road traffic accidents are a major public health problem. Primarily, prevention of accidents is the best strategy to save lives. So far, despite a lot of efforts, it was not possible to avoid Road Traffic Accidents (RTA). Secondary and tertiary preventions are needed when primary prevention no more longer prevents the accident. Therefore, knowing the critical time of death of RTA victims helps to pinpoint when to put in place the best effort to save the lives of victims.

Objective: This study aims at determining the critical time of death resulting from traffic accidents among victims given care at Hawassa Referral Teaching Hospital, South Ethiopia.

Methods: A retrospective register-based study was carried out by reviewing the hospital's log books and patients' charts of the preceding three years, from September 2000 to August, 2002 E.C. Incidence density was used to calculate incidence of death while survival time was defined as time from admission to discharge (either with death or improvement). An outcome was defined as failure if death occurs; otherwise the individual was considered censored. Life table survival function was used to determine survival rate; and Cox proportional hazard regression model at 95% CI was used to determine the predictors of failure.

Results: The data of all 423 consecutive victims, who were given emergency care at Hawassa Referral Hospital for three years were retrieved. More than 80% of victims were of the productive age group (15-64 years). Almost half of the victims were pedestrians 209 (49.4%). Head injury was sustained by 183 (44.2%) victims. About a third of the victims (31.4%), were unconscious on presentation to the Hospital. Death was the outcome of injury for 56 (13.24%) of the victims. Fifty seven percent of those deaths occurred after admission to the hospital, while the rest 43% occurred during or immediately after the accident. Out of the total 222 victims who were admitted, 14.4% of them eventually died in the Hospital beds (incidence rate: 19.8 per 1000 person-days of follow up). Survival rates were 96.8%, 88.8%, 84.6%, 75.3% and 49.1% lasting day one, five, ten, fifteen and a month, respectively. More than half of the total deaths

(53.1% 17/32) occurred in the first five days of admission. Death before admission was related to head injury (p=0.003) and blood loss (p=0.02). Using Pearson chi square all victims who survived for the month first continued to do so up until all were censored. The median survival time was 27 days. All patients with sepsis and hemothorax eventually died. Sepsis was also related to death in the type of that was involved in the accident admitted victims (Fisher Exact chi square, p=0.003).   The independent predictors of death by traffic accident were vehicle type (ISUZU truck; AHR: 5.9[1.7-20.2); Bajaj; AHR: 12.2[1.6-94]; head injury; AHR: 3.9[1.2-12.4]; chest injury; AHR: 5.6[1.6-19.7].

Conclusion: Productive age groups are disproportionately victimized by traffic accidents. The risk of death was highest for the first 5 days of admission (accident). Head injury and blood loss were the culprits, for early death. Therefore, this study found out that the early 5 days for admitted victims is a critical time to save their lives. More importantly, patients with head injury and blood loss need critical emphasis in the appropriate management during these days.

Key words: RTA, Survival, Hawassa referral Hospital

Abstract 27

A COMPARATIVE STUDY OF BLOOD CULTURE AND WIDAL TEST IN THE DIAGNOSIS OF TYPHOID FEVER IN FEBRILE PATIENTS, *Gizachew Andualem, MSc, department of medical laboratory technology, Haramaya University; Tamrat Abebe, MSc, Department of Microbiology, Immunology and Parasitology, Addis Ababa University; Dr. Negatu Kebede, DVM, MSc, Aklilu Lemma Institute of Pathobiology, Addis Ababa University; Dr. Solomon Gebre-Selassie, MD, MSc, Department of Microbiology, Immunology and Parasitology, Addis Ababa University; Dr. Adane Mihret, DVM, MSc, Department of Microbiology, Immunology and Parasitology, Addis Ababa University.*

Introduction: Typhoid fever is a major health problem in developing countries. Accurate diagnosis on clinical for grounds alone is difficult. In areas of endemicity, such as Ethiopia, bacterial cultured lab facilities, the definitive diagnosis, are often unavailable. So, the Widal test has been in use instead. However, the value of this test diagnosing of typhoid fever has been debated. So further evaluating the result of this Widal test is necessary for correct interpretation of the result. In addition, typhoid fever caused by multidrug resistant strains of *Salmonella typhi* presents a serious problem in many developing countries.

Objective: The main objective of this study is to compare the result of the Widal test with blood culture in the diagnosis of typhoid fever in febrile patients and to determine the antimicrobial pattern of isolates.

Methodology: Data was collected from 277 febrile patients with symptoms clinically similar to typhoid fever visiting St. Paul's General Specialized Hospitals from mid December 2010 to March 2011. Blood was inoculated immediately after collection into 45 ml of Trypton Soy Broth and further processed for the identification of *S.typhi* and *S.paratyphi*. An antimicrobial susceptibility pattern of *S. typhi* and *S. paratyphi* isolates were determined by the modified Kirby-Bauer disk diffusion technique. Slide agglutination test as screening test and tube agglutination for the determination of antibody titer for reactive slide agglutinations samples were made. Antibody titer of ≥1:80 for anti TO and ≥1:160 for anti TH were taken as a cut off value to indicate recent infection of typhoid fever. SPSS version 16 was used for analysis and p value ≤0.05 was taken as significant.

Result: Out of the total of 277 febrile patients recruited for this study, data from 270 were analyzed because the remaining seven patients had incomplete data. Out of the total, 186 (68.9 %) were female and 84 (31.1 %) were males. Seven (2.6%) cases of

S. typhi and four (1.5%) cases of *S. paratyphi* were identified with the total prevalence of typhoid fever was 4.1 %. The total number of patients who showed indications of recent infection by either the O and H antigens, Widal test gave 88 (32.6%). The sensitivity, specificity, positive predictive value and negative predictive value of Widal test were 71.4 %, 68.44%, 5.7% and 98.9% respectively. Most (3/7[42.9%]) of the isolated *S.typhi* were highly resistant to amoxicillin. All species were sensitive to norfloxacin and ceftriaxone. *S. paratyphi* isolates showed no resistance to gentamycine, tetracycline, norfloxacin and ciprofloxacin. More resistance (3 out of 4) was observed in amoxicillin. One species of *S.typhi* were two species of *S. paratyphi* were multi drug resistant.

Conclusion and Recommendation: The Widal test has a low sensitivity, specificity and PPV, but it has good NPV which indicates that a negative Widal test result is a good indication for the absence of the disease. Hence, physicians should not depend entirely on the Widal test for the diagnosis of typhoid fever and should use other alternatives such as using clinical knowledge to differentiate typhoid fever from other febrile infections. Regarding drug resistance, both *S. typhi* and *S. paratyphi* showed high resistance for commonly used drugs against typhoid fever. Therefore, sensitivity test-based prescription should be started to prevent continuous drug resistance.

Key Words: Widal test, blood culture, antimicrobial resistance, sensitivity, specificity, positive predictive value, negative predictive value

Abstract 28

DETERMINANTS OF OCCUPATIONAL INJURY: A CASE CONTROL STUDY AMONG TEXTILE FACTORY WORKERS IN AMHARA REGIONAL STATE, ETHIOPIA, _Zewdie Aderaw, Debremarkos University, health Science College, Public health department, Dagne Engdaw, Gondar University, college of medicine and health sciences, department of environmental health_

Background: Occupation-injuries pose a big public health and socio-economic developmental problems and efforts towards systematic reporting and investigation of the characteristics and its determinant factors among factory workers have so far been insignificant in developing countries including Ethiopia.

Objective: The main objective of this study was to assess the characteristics and determinant factors of occupational injury among textile factory workers.

Methods: An institutional based case control study was done among 456 textile factory workers (152 cases and 304 controls). Self reported data from the workers themselves and review of documents from the factory clinic were used to ascertain occupational injury status within a one year period. The cases consisted of workers with a history of occupational injury while the control groups were workers with no such history. Data was collected using pretested and a structured questionnaire by trained data collectors. The coded and cleaned data was entered in to SPSS version 16 for analysis. Descriptive statistics, bivariate and multivariate analysis were used to present the results. Crude and adjusted odds ratios with p value and CI were calculated.

Results: Fingers (77 35.3%) and toes (31 14.2%) were the frequently affected body parts and most were caused by machinery (83 38.1%) and being hit by falling objects (39 17.9%). From the total cases, 38 (25%) sustained more than one occupational injury per year. About sixty six percent of injured workers were absent from work more than three working days. Young age (<30 years) [AOR: 1.90, 95% CI: 1.22, 2.94], men [AOR: 2.54, 95% CI: 1.58, 4.07], health and safety training [AOR: 1.85, 95% CI: 1.17, 2.91], sleeping disorder [AOR: 1.99, 95% CI: 1.30, 3.04] and job stress [AOR: 2.25, 95% CI: 1.15, 4.41] were the significant predictors of occupation injury the among textile factory workers.

Conclusion and Recommendation: Young in age, being male, lack of training on health and safety, sleeping disturbance and job stress increased the risk of occupational injury. So, to reduce the occupational injuries among textile factory workers, providing

basic health and safety training, reducing stress and providing better counseling for better sleeping habits are recommended.

Abstract 29

PREVALENCE OF MENTAL DISTRESS AND ITS ASSOCIATED FACTORS AMONG REGULAR UNDERGRADUATE STUDENTS OF ADAMA UNIVERSITY: A CROSS - SECTIONAL SURVEY _Jemal Ebrahim_, MSc, Department of Psychiatry, University of Gondar and Amanuel Specialized Mental Hospital, Addis Ababa, Ethiopia

Introduction: Mental health is gradually being recognized as an important public health concern. Student integration in universities is usually difficult and involves many factors which are potentially stressing including social, economic, demographic, serious threats of violence, presence of major physical illnesses, family environment, and other factors determine the prevalence, onset and course of mental and behavioral disorders.

Objective: To assess the prevalence of mental distress common mental disorders symptoms and its associated factors among regular undergraduate students of Adama University.

Method: Institution-based cross-sectional study was conducted among regular undergraduate students of Adama University from March, 7-30, 2011. Self-administered questionnaires having three parts were used. 'SRQ20 items' was used to measure the prevalence of mental distress among the university students. A total of 442 students selected by simple random sampling method were included in the study. EPI Info 2002 and SPSS software version 15 were used for data entry and analysis respectively.

Results: The overall prevalence of mental distress was (21.6%). Statistically significant higher level of mental distress were observed among students who reported to have family history of mental illness [OR 95%CI=2.30 (1.10, 4.81),] and those engaged in conflicts around dormitories [OR 95%CI=2.26 (1.10, 4.85)]. Chat users were more at risk of having mental distress compared to non users [OR=2.23, 95% CI (1.14, 4.35)]. There was observed a declining trend in the level of mental distress with increasing year of study which is statistically significant at P-value=0.05. Highest levels of mental distress were observed among students who never followed religious programs irrespective of their religion.

Conclusions: The overall prevalence of mental distress in the university was found to be 21.6 %. The likelihood of having mental distress among students who have a family history of mental illness and those who were chewing chat were approximately 2 and 3 fold higher than those who did not have family history of mental distress and those who did not chew respectively.

Students who never followed, religious programs irrespective of their religion were associated with statistically significant higher levels of mental distress.

In this study, there was no significant difference in mental distress among different age groups, sex, parental marital status, monthly income and other variables we considered.

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Abstract 30

ASSESSMENT OF ANTIHYPERTENSIVE THERAPY IN DIABETIC HYPERTENSIVE PATIENTS IN JIMMA UNIVERSITY SPECIALIZED HOSPITAL CHRONIC CARE CENTER, JIMMA, SOUTHWEST ETHIOPIA, _Beza Teshome_ *(BSc in pharmacy)*, Seid Mussa Ahmed (B.Pharm, MSc.)*

Background*:* Diabetics and hypertension are closely related diseases that tend to occur together and the presence of one makes the treatment of the other difficult. As a result macrovascular complications are common in diabetic hypertensive patients so that appropriate antihypertensive therapy is needed to prevent such complications. Despite this, there is little concern about this and data on factors affecting the choice of antihypertensive medications are rare in our country.

Objective: To evaluate antihypertensive therapy in diabetic hypertensive patients in Jimma university specialized hospital chronic care center.

Methods: A retrospective cross-sectional study was conducted on patients medical history records. Patient cards of all diabetic hypertensive patients attending JUSH chronic care center that are on antihypertensive therapy from Jan.1 2000-Dec. 31 2011 were reviewed. The medical files of 372 (225 male and 147 female) who were diagnosed with diabetic and had developed hypertension were reviewed and analyzed. These patients were on regular follow up in JUSH chronic care center.

Result: Out of 428 diabetic hypertensive patients cards reviewed, only 372 (86.9%) were analyzed. The remaining 56 (13.1%) patient cards were not analyzed as they were not complete. Among the 372 diabetic hypertensive patients (255 male and 147 female), 152 (40.9%) of patients achieved the targeted blood pressure ($\leq$130/80). The commonly used antihypertensive drugs in this study were, in descending order, ACE-Is, Diuretics, BBs, CCBs, and α1-antagonists. Among the study population a total of 183 patients (49.2%) were on mono therapy, 160 (43%) two-drug combination and 29 (7.8%) were receiving three drug combinations. There was a report of one IHD, one MI and one stage III CHF. Moreover, six patients (1.6%) had concurrent bronchial asthma and another 13 (3.5%) mood disorder, taking amytriptylline.

Conclusion and Recommendation: The blood pressure control was not good enough. Fifty nine point two percent of the patients did not achieve the targeted BP (≤130/80).

The selection of the type of antihypertensive drug complies with the national guideline but there was under utilization of antihypertensive drugs. To improve the blood pressure control and avoid complications in diabetic hypertensive patients, appropriate selection of the drugs by the physicians as per the standard treatment guideline and based on the individual's health condition and comorbidities is necessary.

Keywords: Hypertension, diabetes mellitus, macrovascular complication, microvascular complication, antihypertensive drugs.

Acronyms: **ACE Is**: Angiotensin Converting Enzyme Inhibitors; BBs: Beta Blockers; BP: Blood Pressure; CHF: Congestive heart failure; CCBs: Calcium Channel Blocker; IHD: Ischemic Heart Disease; JUSH: Jimma University Specialized Hospital.

Abstract 31

PREVALENCE OF ANTISOCIAL PERSONALITY DISORDER AND ASSOCIATED FACTORS AMONG ADDIS ABABA HIGHER CORRECTIONAL INSTITUTION PRISONERS; A CROSS-SECTIONAL STUDY, *Abraha Gosh, Bsc, Msc, department of psychiatry in university of Gondar and Amanuel Mental Hospital, Addis Ababa, Ethiopia*

Background*:* Somewhat unexpected, but an intriguing finding in recent research is that a larger physical body size is linked to antisocial behavior. Epidemiological research has shown that antisocial personality disorder is a common disorder, which is particularly prevalent among prisoners. It has major public health implications in terms of its association with drug abuse, early unnatural death, violent crime, unemployment, homelessness, and family violence.

Objectives: Assessment of the prevalence and factors associated to antisocial personality disorder among prisoners in Addis Ababa highly security correctional institutions.

Methods: A cross-sectional study was conducted in Addis Ababa highly correctional institutions in April-2011, by using semi-structured interview which was directly adopted from a psychopath checklist (PCL-TR) for ASPD. A systematic sampling technique was used to select a total of 442 Inmates among the total prison population of Addis Ababa highly security prisons. Data was collected by trained health professional data collectors and was analyzed using SPSS 13.0 for windows.

Results*:* Out of 442 samples, the response rate was 86.4%. Males were at increased risk (AOR=8.19 (95%CI; 3.59, 18.69) to antisocial personality disorder than females. And it was higher among prisoners who had no/ had less than 500 ETB monthly income (AOR=2.68; (95 % CI; 1.14, 6.30) when compared to prisoners who were getting ETB ≥500/month. Being single were also significantly associated with ASPD (AOR=6.57(95% CI; 2.09, 20.60). And those who were unemployed had a significant association (AOR=4.18(95%CI; 1.99, 8.73). But there was no statistically significant association between antisocial personality disorder and religion, ethnicity, and educational status in this study.

Conclusions: The prevalence rate of antisocial personality disorder among the study population was lower, in this study; these factors are associated with it, being male, single (unmarried, separated, divorced, widowed), no/low income and unemployment.

Abstract 32

PREVALENCE OF RELAPSE AND ASSOCIATED FACTORS IN PATIENTS WITH SCHIZOPHRENIA AT AMANUEL SPECIALIZED MENTAL HOSPIAL, *Zewdu Shewangizaw, MSc, Department of Psychiatry, University of Gondar and Amanueal Mental Hospital, Addis Ababa, Ethiopia*

Background: More than 51 million people worldwide suffer from schizophrenia. Over 576,986 people are affected by it in Ethiopia. Schizophrenia relapse rates vary from 50% to 92% globally. Internationally, factors that are commonly associated with relapse include poor adherence to treatment, substance abuse, co-morbid psychiatric illness, a co-morbid medical and/or surgical condition, and stressful life events.

Objectives: To assess prevalence and associated factors of relapse in patients with schizophrenia at Amanuel mental specialized hospital, Addis Ababa, Ethiopia.

Methods: An institution-based cross-sectional study by using systematic random sampling method was carried out in April 1-30 2011. Data were collected by using a pretested semi-structured questionnaire in the form of interview from 442 patients. The collected data were coded, entered and analyzed by SPSS and Epi info, respectively.

Result: From the total participants, about 43.3% of them had met the criteria for relapse of schizophrenia. Regarding factors contributing to relapse, participants who faced depression, had a greater chance of relapse by 1.95 times [OR (95% C.I, 1.95(1.17, 3.25)]. Respondents who developed suicidal tendencies [OR (95% C.I, 9.12 (4.59, 17.92)] were prone to a relapse, and non-adherence to treatment had a significance association with the relapse of schizophrenia [OR (95% C.I, 2.80 (1.58, 4.96)].

Conclusion and Recommendation: The prevalence of relapse of schizophrenia is a common and main problem among cases in Ethiopia and the factors associated with relapse were depression, non-adherence to and medication suicidal ideation. It is better to provide psychosocial approaches including social work community programs in addition to antipsychotic drug therapy, treating psychiatrist identified comorbid psychiatric illness and promoting close monitoring activities to prevent drug non-adherence.

Abstract 33

PATTERNS OF TREATMENT SEEKING BEHAVIOR FOR MENTAL ILLNESSES IN SOUTHWEST ETHIOPIA. *Eshetu Girma, Department of Health Education and Behavioral Sciences, Jimma University; Markos Tesfaye, Department of Psychiatry, Jimma University, Ethiopia*

Background: Early recognition of the signs and symptoms of mental health disorders is important because early intervention is critical to restoring the mental as well as the physical and the social wellbeing of an individual. This study tried to explore the patterns of help seeking behavior and associated factors for mental illness.

Methods: A quantitative institution-based cross-sectional study was made involving 384 psychiatric patients at Jimma University specialized hospital, from March to April, 2010. Data was collected using a pretested WHO encounter format by trained psychiatric nurses. Data was analyzed using SPSS V.16.

Result: The main depression disorder were: 186 (48.4%), schizophrenia 55 (14.3%) and others 47 (12.2%) as the most common diagnosis given to the respondents. The median duration of symptoms of mental illness before presentation at a modern mental health facility was 52.14 weeks. The main sources of information for the help sought by the patients were found to be family 126 (32.8%) and other patients 75 (19.5%) . Over a third of the patients, 135 (35.16%), came directly to Jimma University specialized hospital. More than half of them sought traditional treatment from either religious healer, 116 (30.21%), or herbalist, 77 (20.05%) before they came to the hospital. The most common explanations given on the cause of mental illness were spirit possession (198 51.6%), and the evil eye (61 15.9%) whereas 73 (19.0%) of the respondents said they did not know the cause of their mental disorders. Nearly all of the respondents, 379 (98.7%), believed that mental illness can be cured with modern treatment. Individuals who were manifesting abdominal pain and headache, were more likely to seek care early. Being in the age group of 31-40 years had significant statistical association with early treatment seeking behavior.

Conclusions: There was a significant delay in modern psychiatric help seeking in the majority of the cases. Traditional treatments are the first place where help is sought for mental illness in this population. Most of the respondents claimed that mental illnesses were caused by supernatural entities; in the contrary, others believed that mental illnesses can be cured with biomedical treatment. Intervention targeted at improving public awareness about the causes and treatment of mental illness could reduce delay in treatment and thus improve treatment outcome.

Abstract 34

ASSESSMENT OF ALCOHOL USE AND RISKY SEXUAL BEHAVIOURS AMONG LOCAL (TELA AND TEJ) DRINK SELLERS IN ADDIS KETEMA SUBCITY OF ADDIS ABABA, Ibrahim Kedir (Lecturer, Wollega University), Assefa Seme, Assistant professor, AAU

Introduction: AIDS continues to be a major global health priority. The number of people living with HIV is still growing worldwide reaching an estimated 33.3 million in 2009. Slightly more than half are women. Patterns of alcohol consumption prevail in countries with the most severe HIV epidemics. Hazardous alcohol use is often assumed mainly to affect men, but women are harmed in large numbers by alcohol consumption: either their own or that of their partners. Women are at risk of alcohol-related sexual risk behavior in several ways. Women who sell alcohol are at increased risk of drinking alcohol themselves, engaging in unprotected sex with their clients, and HIV infection.

Objective: The objective of this study was to assess the prevalence of alcohol consumption and its association with risky sexual behaviors among drink sellers in Addis Ketema sub-city, Addis Ababa.

Method: A cross-sectional study was made among 698 women engaged in selling tela and tej drinks in Addis Ketema sub-city and Addis Ababa. The sample size was calculated using single population proportion formula and a multistage cluster sampling technique was used. The data were collected through a standardized questionnaire by trained data collectors. Respondents were assessed by socio-demographic variables, type, amount and frequency of alcohol consumption and also risky sexual behaviors and bivariate and multivariate analysis were used to assess the association between these variables. Logistic regression was used to control confounding variables.

Results: The prevalence of alcohol use among local drink sellers was found to be 33.3%. About 72 (41%) of the respondents drink alcohol on a daily basis, while 46 (26.4%) did so twice a week and 56 (32.2%) once a week or less; and the alcoholic that majority, 133 (59.1%) of the study participants drink was "Tela". Five hundred sixty six (82.4%) of the respondents had initiated sexual intercourse, out of whom 85 (15%) had sex with non-regular partners and 29.7% didn't use condom the last time they had sex. About 71 (13.0%) of respondents reported that they had received gift or money in exchange for sex. Alcohol drinking was found to be associated with monthly personal income of ETB 100 or more and divorced. Having 3 or more drinks at one time was

associated with having had sex with non-regular partners and also with receiving gift or money in exchange for sex. Drinking alcohol daily and twice a week was also associated with receiving gift or money in exchange for sex. Regarding the types of alcoholic drinks, drinking beer was found to be positively associated with having had sex with non-regular partners. Condom use at last instance of having used drinking alcohol, had primary and above level of education and were never married.

Conclusions: HIV prevention programs for local drink sellers should recognize that alcohol consumption may be an important indicator of risk for HIV infection and AIDS through its association with risky sexual behaviors.

Abstract 35

DISCLOSURE OF HIV SEROSTATUS AND ASSOCIATED FACTORS AMONG CLINICAL SERVICE USERS IN EAST GOJAM, NORTHWEST ETHIOPIA, *Beza Belayneh*, *MPH/RH*

Background: Revealing one's HIV serostatus to a partner and others helps engage in preventive behaviors and encourages partners for HIV testing and increases for care, support and treatment. However, little is known about disclosure of HIV status in the Amhara region.

Objective: This study was tried to assess the status of disclosure of HIV positive serostatus and associated factors among clinical service users in East Gojam

Methods: A facility-based comparative cross-sectional study using quantitative and qualitative methods was done from February 12 to March 26 2009 in East Gojam on 712 HIV positive clinical service users. Using simple random sampling data for the study were collected by interviewer administered questionnaire, coded and fed to SPSS version 16.0. Univariate, bivariate and multivariate analysis were done to determine the magnitude of variables, association and determinants and to control confounding variables.

Result: The result showed that 633 (88.9%) persons disclosed their HIV status to at least one person, 576 (80.9%) disclosed to their current main sexual partners, 182 (31.6%) shared their status following having sex, 226 (31.7%) of the participants did not know their current main partners' HIV serostatus and nearly one third of them, 40 (30.8%), disclosed their HIV status to their casual partners. The majority of the respondents, 349 (60.6%) encountered positive reaction from their partners. Fear of partner is negative reaction (69 (50.7%) stigma and discrimination (292 (71.2%) were the main barriers for not disclosing status to sexual partners and others persons. Knowledge of partner's HIV status, attending formal education, discussion and talking about HIV before testing, interaction with partner, with whom the test was taken ART, membership of a PLWHA association, perceived social support and perceived benefits and self-efficacy were determinants of HIV serostatus disclosure.

Conclusion: Though the majority of the respondents disclosed their HIV status to others, a significant proportion of them did not share their HIV status to their sexual partners and if they did, the disclosure was delayed in one third of them. Gender had no

significant association with disclosure of HIV serostatus and a significant number of the participants did not know their partners' HIV status.

Recommendation: Couple counselling and programs that initiate couple communication should be encouraged and given due attention and programs addressing stigma and discrimination and support to PLWHA should be strengthened.

Abstract 36

WILLINGNESS TO HOME BASED HIV COUNSELING AND TESTING SERVICE AMONG RESIDENTS IN CHAGNI TOWN GUANGUA WEREDA, WEST AMHARA REGION, ETHIOPIA *Bogale Tessema, MPH, TB/HIV officer in Guangua wereda health office Chagni*

Introduction: HIV/ AIDS continue to be major global health priority. HIV counseling and testing is thus a key strategic entry point to prevention, treatment, care and support services. But according to EDHS 2005 voluntary HIV counseling and testing in Ethiopia are low; this means: people living with HIV get testing and counseling only when they are already in advanced stage of the disease. Assessing willingness of home-based HIV counseling and testing service is essential for promoting, expanding and accessing HIV counselling and testing service to the community.

Objective: To assess willingness to home-based HIV counseling and testing service among residents in Chagni town and Guangua wereda.

Methodology: A cross-sectional household survey using both quantitative and qualitative methods was conducted from August 2010 to June 2011.

Result: A total of 480 study participants were included in the study with the response rate of 99.6% and of the 243 (50.6%) were female with a mean age of 30 years (±sd 9). This study indicated that 445 (92.7%) of the respondents were willing to undergo HIV counseling and testing at home. Multivariate analysis showed that study participants, who had had HIV test, participants who knew about the availability of VCT service in their locality and respondents with a history sexual intercourse had statistically significant association with willingness to have HIV test at home. But only 190 (39.6%) respondents ever had HIV test. The main reasons given for having HIV test were to know status and to plan future life. On the other hand the main reasons for not having HIV test were self and partner trust followed by the fear about the possible negative results. Multivariate analysis showed that being married, individuals who had a good knowledge about HIV/AIDS and individuals who had stigmatizing and discriminating attitude were more likely to make use VCT services.

Recommendation: based on our finding, BCC/IEC activities should be strengthened to promote VCT service utilization, to increase knowledge about HIV/AIDS and to reduce stigma and discrimination. Home-based HIV counseling and testing should be implemented by the wereda health office in collaboration with wereda HAPCO and other organizations working on HIV/AIDS by integrating existing health extension packages.

Abstract 37

SEXUAL AND SUBSTANCE USE RISK BEHAVIORS FOR HIV TRANSMISSION AMONG STUDENTS IN HOSSANA HEALTH SCIENCE COLLEGE, HOSSANA, SOUTHERN ETHIOPIA *Likawunt Samuel, Hosanna Health Science College, April 2011*

Background: Colleges are institutions of higher learning educate and confer diplomas and degrees in specific academic fields. Study findings notify that most of students of higher learning rush to range of maladaptive extracurricular high-risk activities such as, alcohol use, substance and sexual abuse which predispose to human immune deficiency Virus (HIV) transmission. Yet, it is unrecognized and not well researched.

Objective: This study is aimed at assessing magnitude of sexual, and substance use risk behaviors and describing associated factors for HIV transmission among students in Hosanna Health Science College, Hosanna, and April 2011.

Methodology: Cross sectional study was employed among statistically determined (n) =423 and randomly selected students from all departments and years of study [2008, 2009 and 2010]. Piloted and self-administered questionnaire was used to collect data. Chi-square and regression analysis were utilized to quantify magnitude and identify independently associated factors. Computer software SPSS version 18.0 was used for data analysis with cut- off points for p -value 0.05 and 95 % confidence interval for significance.

Result: Total of 423 participants included in analysis resulting. Majority 267 (63.1%) were female, and 379 (89.5%) in age group (17-24). Out of 423 students 313 (74.0%) were commenced sex (penile vaginal) at least once 9 moths prior to the study, of whom 157 (50.5%) were engaged in at least one of higher risk sexual practices practicing sex with multiple sexual partners (MSP), 66 (21.1%) irregular condom use and 19(15.9%) practiced sex with female commercial sex workers (FCSW) in bars and brothel, for HIV infection. Self reported findings reveal about 117(27.7%) subjects have Khat chewing behavior and 92(21.7%) use alcohol. Seventy one (16.8%) had lascivious figures/videos in their mobile phones.

The odds of having multiple sexual partners was significantly higher among female participants [(AOR/95%CI;1.45(1.13,1.18)p=0.001], midwifery [AOR (95% C/I):4.05(1.27-12.83) p=0.003] and clinical nursing students, [AOR (95% C/I): 3.15(1.07-9.26) p=0.002]. Fresh students and those study in group were more likely to commence sex with multiple partners compared to their counterparts [(AOR/95%CI;1.82(1.11,2.97),p=002 and 3.03(1.92,4.97)].Regression findings notify Alcohol use and having sex initiating figures in mobile phones were strongly associated with both having MSP, irregular condom use and practicing sex with FCSW.

Conclusion: Magnitude of risk behavior was high among participants, having MSP, irregular condom use and commencing sex with FCSW were common sexual risk behaviors and alcohol use was the most factors associated with risk practices. There was significant risk difference seen among participants. Establishing information center and HIV mainstreaming in colleges was recommended.

Abstract 38

VALIDATION OF HEALTHCARE PROVIDERS' HIV RELATED STIGMA SCALE, JIMMA ZONE, SOUTHWEST ETHIOPIA, *Garumma Tolu (BSC, MPH, Department of Health Education and Behavioral Science, Jima University), Lakew Abebe (BSC, MPH, Department of Health Education and Behavioral Science, Jima University), Eshetu Girma (BSC, MPH Department of Health Education and Behavioral Science, Jima University), Mirkuzie Woldie (MD, MPH, Associate professor of Health service management system, Jima University), 2011*

Background: Stigma and discrimination against people living with human immune deficiency virus (HIV) is an obstacle against effective responses to the pandemic. Understanding its magnitude and its underlying causes, is necessary for developing strategies to reduce it.

Objective: To validate healthcare providers' HIV related stigma scale in healthcare institutions of Jima Zone, Southwest Ethiopia by 2011.

Methods: Cross-sectional study was made in 18 healthcare facilities of Jima Zone, from March 14 to April 14, 2011. A census method was employed to recruit healthcare providers for the study. A total of 255 healthcare providers responded to the questionnaires. Exploratory factor analysis with principal component extraction and varimax Kaiser Normalization rotation method was employed to develop scales for stigma and discrimination and perceived institutional support. Eight values of greater than 1 and scree plot were used as a criterion for extraction. Items with loadings of less than 0.4 and double loaded items were dropped. The construct validities of the scales were tested by assessing the associations of the scales with independent variables based on the conceptual knowledge.

Results: Seven factors emerged from the four dimensions of stigma and discrimination during exploratory factor analysis. The factor loadings of the items ranged from 0.58 to 0.93. The cronbach's alphas of the scales ranged from 0.80 to 0.95. HIV knowledge, perceived institutional support, training on stigma and discrimination, educational status, HIV case loads, the presence of ART in the healthcare facility and perceived religiosity were factors associated with stigma and discrimination measured by the seven emerged latent factors.

Conclusions and Recommendations: Although the healthcare providers' HIV related stigma scale was reliable and valid for this study, it should be further field tested at different levels of healthcare settings in Ethiopia.

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Abstract 39

HEALTH SERVICE UTILIZATION AMONG PEOPLE WITH DISABILITIES IN ADDIS-ABABA, _Ayele Wolde,MPH, Joint MPH program university of Gondar and Addis-continental Institute of Public Health_

Problem Statement: One person in ten as many as 600 million people worldwide live with a physical, sensory (deafness, blindness), intellectual, or mental health impairment of which, 80 per cent of disabled persons are living in developing Countries particularly in Africa. According to the population census 1994, there were 988,853 disabled persons i.e., 1.9 percent of the total population, excluding the homeless, of Ethiopia with sex ratio of 120 males per 100 females.

Despite the expansion of primary health care services, access to and utilization of health services among people with disabilities is generally poor in developing countries due to various factors. Therefore, Information on health care utilization of these vulnerable and marginalized groups is crucial to promote disability inclusive health care in the existing public health services and bring about an overall socioeconomic development.

Objective: Assess Health service utilization patterns and factors affecting health care utilization among people with disabilities in Addis Ababa.

Methodology: A cross sectional quantitative study supplemented with a qualitative study was conducted. A house-to-house survey was conducted in five kebeles of Addis Ketema sub-city from February 8, 2010 to March 22, 2010. A total of 454 persons with disabilities were interviewed using a structured and pretested questionnaire. Three FGD sessions were conducted among different groups and four health institutions were assessed to identify service related barriers using a structured Health facility Survey Guide. Additionally, two Health service managers were interviewed using in-depth interview Guide.

Result: Of the total 454, 209 (46%) visited health institutions for health care during the last six months, of which 143 (68.4%) for curative service, 36 (17.2%) to get disability specific information including rehabilitation services and 30 (14.4%) for preventive health care. Respondents between age 40 and 49 (AOR= 0.47; 95% CI; 0.25, 0.87) compared to age 18-29 were less likely utilize health care. Whereas respondents who were: educated, (AOR=2.22; 95% CI; 1.39, 3.56, AOR=1.98; 95% CI; 1.06, 3.71); and have family support, (AOR=2.38; 95% CI, 1.49, 3.78); without severe disability, (AOR=1.89; 95% CI; 1.13, 3.13); physically disabled, (AOR=1.70; 1.04, 2.77); and multiply disabled, (AOR=2.14; 95% CI; 1.12, 4.09); more likely to utilize health care

services. Factors such as attitudinal, Physical barriers, and lack of disability friendly services, were found as potential barriers to health service utilization among people with disabilities.

Conclusions: People with disabilities are less likely to utilize existing health services because of different barriers such as demographic, socio-economic, disability related conditions and lack of disability inclusive services. Hence, there is a need for an integrated interventions among different sectors with due consideration of their diversified needs in order to provide more equitable access to basic health services.

Abstract 40

UTILIZATION OF LATRINE AND FACTORS AFFECTING ITS USE IN SNNPRS, ETHIOPIA *Gashaw Dagne, MPH, Hawassa College of Health Sciences; Teferi Abegaz, MPH, Hawassa University, Health Sciences College, Hawassa; Samson Tesfaye, MPH, Research and technology transfer Officer, SNNPRS Health Bureau, Hawassa; Meka Metekia, MPH, Research and technology transfer process owner, SNNPRS Health Bureau, Hawassa; Jemal Hassen, MPH, Public health emergency process owner, SNNPRS Health Bureau, Hawassa.*

Background: Health improvement comes from proper use of sanitation facilities. It is best achieved through proper use of clean and well maintained latrines. Reports indicated that the latrine coverage of Southern Nations and Nationalities Peoples Regional State (SNNPRS) was about 97% in 2009/2010. However, the extent of their utilization is not well known.

Objectives: The aim of this study was to assess the use of latrine facilities by households of the region, identify factors affecting their use, and find out the hand washing practice of households of the region.

Methods: A community-based cross-sectional study was conducted from June to August 2010, using interviewer administered questionnaire with simple observation to confirm the availability and accessibility of a latrine facilities. The sample size was 1350 households. In addition, 6 focus group discussion (FGDs) consisting of members of the community were involved.

Results: Availability of latrines in the region was found to be 78.7%. However, their utilization was 74.8%. And some of the factors favoring their use were: urban residence [95%CI, OR 4.73(2.36, 9.45], literate parents [95%CI, OR 1.79(1.32, 2.42)], having literate children [95%CI, OR 1.67 (1.13, 2.46)] and owning functional radio or television [95%CI, OR 1.86(1.40, 2.47)]. Regarding the hand washing facilities, they seen only in 10% of the households.

Conclusion and Recommendation: The availability of latrine facilities and their utilization has shown significant improvement recently. However, not all constructed latrines were used and their accessibility in terms of distance and superstructure (privacy) still needs additional effort. The availability of hand washing facilities near the

latrines was found to be very poor. Strengthening health education, giving appropriate technical support and multisectoral collaboration are the key factors to improve the utilization of latrines and hand washing practice in the region.

Abstract 41

THERAPEUTIC EFFICACY OF DIFFERENT BRANDS OF ALBENDAZOLE AGAINST SOIL TRANSMITTED HELMINTHS AMONG STUDENTS OF MENDERA ELEMENTARY SCHOOL, JIMMA, SOUTHWEST ETHIOPIA, *Ephrem Tefera, Medical Parasitologist, College of Medical Sciences, Haramaya University*

Background: Soil transmitted helminthic infections are among the most prevalent diseases in developing countries. Although Albendazole is one of the benzimidazole drug used to treat these geohelminthic infections; different efficacies have been reported for the different species of soil transmitted helminths. There was no evaluation of the therapeutic efficacy of these drugs in Ethiopia at the time of this study.

Objective: The aim of the present study was to determine the therapeutic efficacy of different brands of albendazole among students of Mendera Elementary School in Jimma town.

Method: A cross-sectional parasitological survey was conducted to determine the prevalence of geohelminths and randomized trial was employed to evaluate efficacy of different brands of albendazole among students of Mendera Elementary School from March 29 to April 29, 2010. The sample size for the study was 715. The collected stool samples were examined by the McMaster method. Thus the egg reduction rate and cure rate of each drug was calculated using SPSS and appropriate formula. Logistic regression was used to calculate predictors of geohelminthic infection.

Result: The overall prevalence rate of intestinal parasite was 48.4% of which the prevalence rate of geohelminth was 45.6%. The cure rates (CR) of all the three brands for A. lumbricoides, T. trichiura and its hookworm were 99.4%, 59.9% and 93.7%, respectively. Similarly the egg reduction rates of all the three brands (ERR) were 97%, 99.99% and 99.9% for Ascaris, Trichuris and hookworm, respectively. There was no statistical significant cure rate difference between local and imported brands. There was a statistical significant difference in Trichuris infection between those who used latrines always and those who did sometimes. Multivariable logistic regression analyses showed that gender and hand washing after defecation are predictors of Ascaris infection. Similarly gender and school grade were predictors of Trichuris and Hookworm infections respectively after controlling for different covariates.

Conclusion and Recommendation: All the three brands of Albendazole tested were therapeutically efficacious for Ascariasis, Trichuriasis and Hookworm infections

regardless of the infection status. Both the locally produced and the imported brands were therapeutically efficacious for the three STHs. However the three brands had significant effect on light infection than moderate infection by T. trichiura. In areas where geohelminths is a public health problem, All OVIS, ALBENZ 400, and WORMIN A 200 were the drugs of choice to treat geohelminthiasis. In general the three brands can be used for deworming of school children. Health information dissemination should be given to school children on personal hygiene especially regarding the benefits of washing hands after defecation and on the proper use of shoes especially by the small children of the lower grades. Further research with large sample sizes and with diverse study participants are also recommended.

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Abstract 42

ISOLATION OF SALMONELLA SPECIES AMONG APPARENTLY HEALTHY FOODHANDLERS OF ADDIS ABABA UNIVERSITY STUDENTS' CAFETERIA, ADDIS ABABA, ETHIOPIA, 2011 , _Fentabil Getnet (MSc),_ Gebre-Selassie (MD, MSc), Nigatu Kebede (DVM, MSc)

Background: Food is an important vehicle of spreading infectious agents causing disease resulting in appreciable morbidity and mortality. That is why food-handlers have important role in ensuring food safety. However, in developing countries like Ethiopia the proportion of certified food handlers and their carrier status is not well studied. Nevertheless, salmonellosis is well known that the diseases that can be transmitted from chronic asymptomatic _salmonella_ carriers.

Objective: To detect the _Salmonella_ species among food handlers students' cafeteria of Addis Ababa University, Addis Ababa, Ethiopia.

Methods: A cross-sectional study was conducted to isolate _Salmonella_ among food handlers of AAU students' cafeteria, from December 2010 to February 2011. A structured questionnaire was used to collect socio-demographic data and predisposing factors. Stool samples collected from 233 food handlers were put in selenite cystine broth for _Salmonella_ enrichment, and then cultured on macConkey and XLD for primary culture and purification. The isolate were identified by biochemical tests and drug susceptibility tests were done. All relevant of data were entered using EPI-INFO 3.5.1 and analyzed using SPSS version 16 computer software. Fisher's exact test and binary logistic regression were applied and p-value of less than 0.05 was considered as statistically significant.

Results: Eight _Salmonella_ species were isolated among 233 food-handlers giving an isolation rate of 3.4%, all were females. Of these, two, _S.typhi_, and _S.paratyphi_ A and five unidentified _Salmonella_ species were isolated. Among the risk factors associated with salmonellosis, the habit of after using a toilet with or without soap had a statistically significant association with isolation of Salmonellae, $p = 0.003$ (OD= 0.07, 95% CI= 0.008–0.58). The antimicrobial susceptibility profile showed all except one were resistant to Ampicillin and all isolates were resistant to at least one of theantimicrobials tested.

Conclusion: A 3.4% isolation rate of _Salmonella_ species was obtained and all isolates were resistant to at least to one of the antimicrobials tested. Accordingly, food-handlers could be a source of salmonellosis so that carriers should be treated an periodic screening and other preventive measures also taken such as constant monitoring.

Antimicrobial resistance profile also reflects that the problem could be serious one in the near future.

Key words: Antimicrobial, cross-sectional study, food-handler, isolate, and *Salmonella.*

Abstract 43

WATER CONSUMPTION AND RELATED FACTORS IN AGARO TOWN, JIMMA ZONE, SOUTH WEST ETHIOPIA, *Amana Jemal*, Kedija Yenus

Introduction: The availability of adequate and safe water supply is one of the essential requirements for the controlling a large number of diseases and for advancing the standard of good general health care within the community. Human society requires water for drinking, sanitation, cleaning, production of food and energy, and as an input of commercial and industrial activities. Presently, about 20% of the world population lacks access to safe drinking water and about 50% lacks adequate sanitation according to the United Nations Environmental Program (UNEP). The problem is more acute and intense in Africa and West Asia.

Objective: To determine per capita water consumption and the factors affecting water consumption rate in Agaro town, southwestern Ethiopia.

Method: A cross-sectional study was carried out January, 9-17, 2009 by using systematic sampling. The sample size involved 348 households, taken from among 7608 households. Data was collected by using pre-tested an open and a closed type of questionnaires.

Result: 62.64% of the households had private and piped tap while 37.36% households used other sources. The average daily per capita water consumption was 14 liters per person per day. Daily water consumption rate was greatly associated with the monthly income of the family and the educational level of the head of the households (P<0.05). Only 29.31% households had overhead shower. The majority of the study households did not have any bathing facilities if they did; the set up was for taking a conducive shower.

Conclusion: Generally, safe and adequate water supply for the community is a key factor in the prevention of diseases but the majority of the people had safe water only for drinking even though safe and adequate water very is essential for good health care.

Abstract 44

ASSESSMENT OF OUTPATIENT WAITING FOR SERVICE PATIENT SATISFACTION AND ITS ASSOCIATED FACTORS IN FELGEHIWOT REFERRAL HOSPITAL, BAHIRDAR, AMHARA REGION, ETHIOPIA, _Tesfa Demelie (Bsc, MPH) Mamo Wubishet (BSc, MPH)_

Background: Long waiting time has been frequently mentioned as one factor limiting accessing and using healthcare service. The few studies carried out in developing countries, has shown that patients spent 3-4hours in outpatient departments before, seeing the doctor.

Objective of the study: To assess the outpatient waiting and service time and determine patient satisfaction which the situation and its associated factors in Felege Hiwot referral hospital.

Materials and Methods: A cross-sectional quantitative study was conducted, October 26-30, 2009, to measure the outpatient waiting and service times and to determine waiting time patient satisfaction. All patients / clients   who visited the hospital for healthcare service from Monday October 26- Friday October30, 2009, were included in the study. The collected data was cleaned up and captured in a specific Waiting Times database.

Result: A total of 2037 patients/ clients, that attended Felege Hiwot hospital during the survey days were included in study, of these 861 (42.27 %) were males and 1176 (57.73%) were female. The median age of male patients was 36 years (IQR 17-59) and that of the females was 34 (IQR 20-46). The median (IQR) full waiting time was 113 (65-217) minutes and the median (IQR) full service time was 20 (8-34 minutes). Patients were also asked about the level of satisfaction or dissatisfaction about the overall length of waiting time they experienced in the hospital: 793 (38.9%) of the patients were very satisfied, 658 (32.3%) were somewhat satisfied, 258 (12.66%) somewhat dissatisfied, and the remaining 328 (16.1%) were very dissatisfied. Factors such as arrival of patients before the official opening time, patients' waiting time perception and actual patient waiting time were strongly associated (p<001) with satisfaction.

Discussion and Conclusion: Median full waiting time of 113 minutes was observed as a result of early arrival of patients, a gap between patient arrival and getting and staff absence and inadequacy. Providing service (before the official open of the hospital) for early arrivals and appointment for follow-up patients are suggested for decreasing the prolonged waiting by patients.

Abstract 45

THE REFERNCE VALUES OF IMMUNOLOGICAL AND HAEMATOLOGICAL TESTS FOR APPARENTLY HEALTHY HIV-NEGATIVE ADULTS IN BAHIR DAR, ETHIOPIA,

Bayeh Abera (Msc), Atnaf Alem (MSc), Ambahun Chernet (BSc), Mulugeta Kibret (PhD)

Background: Reference values of immunological and haematological tests differ among different human beings with respect to sex, ethnicity, nutrition, altitude and infection. There are no nationally established reference values for Ethiopia's heterogeneous population.

Objective: The aim of the study was to establish normal reference values of immunological and haematological values for apparently healthy HIV-negative adults in Bahir Dar city.

Methods: A cross-sectional study was conducted from March to June, 2010, in Bahir Dar. Participants from 18 and above years of ages were recruited from voluntary HIV counselling and testing centres in Felge Hiwot Referral Hospital. $CD4^+$ T cells and CD8 T cell counts were enumerated using FACS (Fluorescent Antibody Cell Sorter, Becton Dickinson) and haematology analyses were performed using Cell-DYN 1800 (Abbott Lab. USA).

Results: A total of 405 adults consisting of 238 (58.7%) male and 167 (41.3%) female were recruited. The median age of study participants was 24 years and ranged from 18 to 60 years. The median, mean (± SD) and 95% percentile ranges of immunological and haematological values were established. The mean (±SD) values were: $CD4^+$ T cells, 799 ± 218 (female) and 676 ± 235.6 (male); $CD8^+$ T cells, 582 ±247 (female) and 659.5 ± 343(male); CD4/CD8, 1.53±0.59 (female) and 1.19 ± 0.49 (male); erythrocyte counts (10^{12}/liter), 4.9±0.4 (female) and (5.4±0.5 male); haemoglobin (g/dl), 14.7±2 (female) and 16.5±1.8 (male); haematocrit (%), 44±4 (female) and 49±4.5 (male); platelets (10^9/liter), 277 ± 20 (both sex); absolute leukocyte (WBC) counts were 6.6±3.6 x10^9/liter (both sex); Lymphocyte, 2.15±.59 x10^9/liter (both sex); granulocytes (neutrophils), 3.7±1.6 x10^9/liter (both sex).

Conclusion: Absolute $CD4^+$ T cells reference values were lower than those that Ethiopia has adopted. Females had higher $CD4^+$ T cell counts than males. These differences may influence the decision to commence antiretroviral therapy and monitoring of HIV/AIDS patients and it may be particularly important to consider gender differences. Establishing normal reference value locally has a paramount importance for quality of health care in the clinical management of patients.

Keyword: Reference values, immuno-haematology, Ethiopia.

Abstract 46

THE EFFECT OF HAART ON INCIDENCE OF TUBERCULOSIS AMONG HIV INFECTED PATIENTS IN HAWASSA UNIVERSITY REFERRAL HOSPITAL, SOUTH ETHIOPIA, *Tarekegn Solomon**, B.Sc in PH, MPH in Epidemiology,. College of Health Sciences, Hawassa University and Alemayehu Worku, PhD, Associated prof. school of Public Health, Addis Ababa University*

Background Information: Studies of antiretroviral therapy programs in Africa have shown a high incidence rate of tuberculosis in both antiretroviral therapy receiving and antiretroviral therapy naïve Human Immunodeficiency Virus infected patients. Tuberculosis incidence and factors that contribute to the development of tuberculosis in the area of antiretroviral therapy have been poorly studied and so far described in Ethiopia.

Objective: To examine the effect of HAART on the incidence rate of tuberculosis and tuberculosis free survival among HIV-positive adults in HAART receiving and HAART naïve groups enrolled to the ART clinic in Hawassa University Referral Hospital.

Method: A retrospective cohort study design was used on 632 HIV-positive adults, 15 years old and above, enrolled in the ART clinic in Hawassa University Referral Hospital over a three-year period. Incidence rate of tuberculosis and TB free survival were calculated and compared for Pre-HAART and HAART follow up of HIV/AIDS patients. In this study, patients who were followed in Pre-HAART were considered as unexposed and patients receiving HAART were considered as exposed, and were followed for three years from July 2006 to January 2011.

Result: A total of 632 patients (316 in ART and 316 in ART cohort) were followed for a median of 32.9 (IQR=17.6-36.5) months in Pre-HAART and 35.4 (IQR=23.6-36.5) months in HAART. TB incidence rate was 3.5 and 7.2 per 100 PYO in HAART and Pre-HAART cohort, respectively. Overall the chance of not developing TB was high in HAART cohort (Log rank=8.24, df=1, P=0.004). Being on HAART (AHR=0.182, 95%CI=0.078-0.424, P<0.001), being married (AHR=0.354 95%CI=0.191-0.655, P=0.001) and widowed (AHR=0.375, 95%CI=0.169-0.831, P=0.016) were factors related to decreased TB incidence. WHO stage 3 or 4 (AHR=1.999, 95%CI=1.025-3.896, P=0.042), being bedridden (AHR=4.689, 95%CI=1.715-12.819, P=0.003), and having hemoglobin level less than 10mg/dl (AHR=2.497, 95%CI=1.098-5.679, P=0.036) were factors associated with increased risk of TB in multivariate analysis.

Conclusion: HAART cohort decreased new cases of tuberculosis by 81.8% compared to HAART naïve patients and the probability of not developing TB was higher in HAART cohort than Pre-HAART. The finding is similar to the level reported in other developing and developed countries, but still gross TB incidence rate was high in both Pre-HAART and HAART cohort when compared with developed countries. That mean more efforts has to be made to reduce TB incidence as, which most developed countries has achieved many years ago.

Abstract 47

INVASIVE BACTERIAL PATHOGENS AND THEIR ANTIBIOTIC SUSCEPTIBILITY PATTERNS IN JIMMA UNIVERSITY SPECIALIZED HOSPITAL, JIMMA, SOUTHWEST ETHIOPIA, *Tizazu Zenebe* *(MSc) , Subbaram Kannan(PHD), Daniel Yilma(MD, internist). Getenet Beyene(PHD).*

Background: Presence of microorganisms in the circulating blood whether continuously or intermittently is a threat to every organ in the body. Approximately 200,000 cases of bacteraemia occur annually with mortality rates ranging from 20-50%. Early diagnosis and appropriate treatment of these infections can make a difference between life and death.

Objective: The aim of the present study was to determine the bacterial flora of the blood stream infections and their antibiotic susceptibility pattern.

Methods: A cross-sectional study was conducted on 260 adult febrile patients in Jimma University Specialized Hospital from 27 October 2009 to 26 March 2010. The positive blood cultures were examined and the organisms identified as per standard procedures. Antimicrobial testing was performed for all isolates by disk diffusion techniques and according to the Clinical Laboratory Standards Institute guidelines. The data was analyzed using SPSS for windows version 16 and Microsoft Office Excel.

Results: From the total of 260 specimens only 23 (8.8%) were positive to seven different types of bacteria. The isolated bacteria were: Coagulase negative staphylococci 6 (26.1%), S. aureus 5 (21.7%), S. pyogens 3 (13.0%), E. coli 4 (17.4%), K. pneumoniae 3 (13.0%), Salmonella spp. 1 (4.3%), and Citrobacter spp. 1 (4.3%). The isolates showed high rates of resistance to most antibiotics tested. The range of resistance for gram positive bacteria were 0% to 85.7%, and for gram negative from 0% to 100%. None of the isolates were resistant to ciprofloxacin and ceftriaxone.

Conclusion: Our study result showed the presence of invasive bacterial pathogens with high rate of resistance to most commonly used antibiotics used to treat bacterial infections. Therefore, timely investigation of bacterial flora of the blood stream infections and monitoring of their antibiotic resistance pattern plays an important role in the reducing of the incidence of blood stream infections.

Keywords: Invasive bacteria, antimicrobial resistance, Jimma, Ethiopia.

Abstract 48

MOLECULAR TYPING OF MYCOBACTERIA ISOLATED FROM TUBERCULOSIS PATIENTS AT DEBRE BIRHAN REFERRAL HOSPITAL, NORTH SHOA, *Legesse Garedew, DVM, MSc, Faculty of Veterinary Medicine, University of Gondar; Adane Mihret, DVM, MSc, Department of Microbiology, Immunology and Parasitology, School of Medicine, Addis Ababa University; Gobena Ameni, DVM, PhD, Aklilu Lemma Institute of Pathobiology, Collage of Health Sciences, Addis Ababa University; Tamrat Abebe, BSc, MSc, Department of Microbiology, Immunology and Parasitology, School of Medicine, Addis Ababa University.*

Introduction: Tuberculosis (TB) is one of the major killers among infectious diseases in the world. Each year an estimated 8.9 to 9.9 million cases and approximately 1.55 to 2.32 million deaths due to TB occur worldwide. Ethiopia ranks 7th in the list of world's 22 high burden countries for TB with incidence estimated at 379 cases per 100,000 persons for all forms of TB. Based on preliminary assessment of the disease and the research gap, a cross-sectional study was carried out from November 2010 to July 2011 on 99 smear positives pulmonary and 98 smear negatives extra-pulmonary TB patients at Debre Birhan Referral Hospital.

Objective: Molecular characterization of *Mycobacterium* strains implicated in tuberculosis.

Materials and Methods: A structured questionnaire, acid fast bacilli smear staining, culture, and deletion typing and spoligotyping molecular techniques were used in this study.

Results: The proportional distribution of TB and isolates did not vary substantially (p>0.05) either with age, sex, residence, occupation, previous contact with TB patients, previous treatment with antibiotics or antimycobacterial drugs, habit of unprocessed animal product consumption or with close contact with livestock.   TB combined. Out of 99 sputum and 98 fine needle aspirate samples, 80.80% (80/99) and 36.73% (36/98) of them were culture positives, respectively. Speciation of isolates using regional of difference 9 (RD9), deletion typing showed that 90% (72/80) of the isolates from sputum and 88.89% (32/36) of the isolates from fine needle aspirate were *M. tuberculosis,* while only 1.25% (1/80) and 2.78% (1/36) were *M. bovis,* respectively. Further characterization of randomly selected 97 *M. tuberculosis* isolates of the strain

level using spoligotyping method resulted in the identification of 25 clusters that constituted 80.41% (78/97) of the isolates tested out of which 17 clusters were new to Ethiopia. The most dominant spoligotypes were spoligo international typing number (ST) 149, 53 and 37 accounting for 32.99% (32/97) of the total spoligotypes identified. Comparison of our spoligotypes with international spoligotype database, SpolDB4, showed 19 new spoligotypes which were clustered into nine groups that had never been reported from elsewhere in the world. Analysis of non-clustered (new) spoligotypes and their source indicated that 35.71% (10/28) of the isolates from extrapulmonary sources were unique compared with 13.04% (9/69) of the pulmonary isolates. Classifying strains on the basis of the phylogeny of *M. tuberculosis* using SPOTCLUST software revealed that they belonged to Euro-American, East-African and Indian types and *Mycobacterium africanum* lineages. The most prevalent lineage in the current investigation was Euro-American constituting 69.07% (67/97) of the strains analyzed.

Conclusion: This research has shown the presence of several clusters and new strains of *M. tuberculosis* circulating both in pulmonary and extrapulmonary TB patients in Ethiopia. As mapping the population structure of *M. tuberculosis* is vital to understand the transmission and disease dynamics of TB, set appropriate control measures, further similar studies are recommended.

Key words: RD9 typing, spoligotyping, m*ycobacterium* family, *Mycobacterium* lineage, tuberculosis, Debre Birhan Referral Hospital.
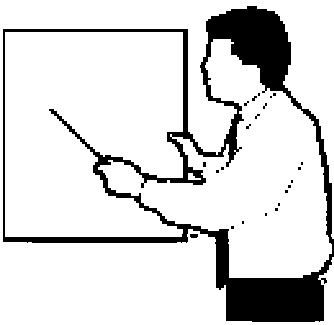
Poster Presentations

Abstract 1

PSYCHOACTIVE SUBSTANCE ABUSE AND INTENTION TO STOP AMONG STUDENTS OF MEKELLE UNIVERSITY, TIGRAY, ETHIOPIA. _Kidan Abrha_ MPH, _Lecturer in Mekelle University_

Introduction: Students of higher educational institution are at higher risk of substance abuse. Presently, substance abuse is one of the most burning public health problems in Ethiopia. Again, the increasing rate of university students who take drugs, the scarcity of rehabilitation and treatment programs for substance abuse threatens the present and future generations of Ethiopia. Although it has been known that this public health problem is a pressing issue, the real extent and magnitude of the drug abuse is not yet properly explored and understood as little research has been done so far.

Objective: To assess the magnitude of psychoactive substance abuse and the intention of users to stop among undergraduate students of Mekele University.

Methodology: A cross-sectional study design using mixed research method (Quantitative, qualitative) was employed during April 2011. Data were collected through anonymous self-administer questionnaire and in-depth interviews. Binary and multiple logistic regressions were used to describe and associate the relevant variables. Finally, thematic analysis was used to analyze the qualitative data. CAGE-AID was used to measure substance abuse.

Result: The response rate was 90.8%. Most, 68%, of the respondents were male. The magnitude of substance abuse was 95% (CI: 20.1 (17.07, 23.48)]. The commonly-abused substances were alcohol, [95% CI: 16.6 (13.82, 19.78)] followed by khat 14.8 (12.14-17.82) and cigarette and cannabis each were abused [95%CI: 8.8 (6.743, 11.29)]. It has also been identified that substances abuse in males 95% AOR, CI; 2.214 (1.071, 4.575)] were two times higher than female respondents. Participants initiated. To us substances at elementary school level [AOR, 95% CI 8.599 (4.571, 16.174) were 9 times higher than those who started at other levels (secondary, preparatory and university). In addition, those who started to abuse substance through peer pressure [AOR, 95% CI 14.931 (6.824, 32.668)] were 15 times more likely to abuse substances as compared to those who did not. By contrast, the study showed that students from law and governance facilities of [AOR, 95% CI .127 (.048, .335)] were less likely to abuse substances. Furthermore, the proportion of those with intention to stop among abusers was 49.6%.

Conclusion and Recommendation: From this finding, it is possible to conclude that substance abuse is an urgent problem among undergraduate university students; however, their intention to stop is high. Sex, religion, field of study, reason to start and initiation time are statistically significant factors. Generally, from this study suggested that further work is urgently needed to design suitable policies, culturally and psychologically appropriate intervention packages.

Key words: Psychoactive substance abuse, Intention to stop, Mekelle University.

Abstract 2

A CASE CONTROL STUDY ON FACTORS ASSOCIATED WITH VOLUNTERY COUNSELING AND TESTING UPTAKE AMONG STUDENTS OF BAHIR DAR UNIVERSITY, ETHIOPIA, _Tsehaye Tewabe_ (MPH)

Background: Voluntary counseling and testing (VCT) is one of the corner-stone for successful implementation of HIV prevention, care and support services among HIV negative and positive individuals.

Objectives: This study aimed to find the factors associated with uptake of VCT services among students of Bahir Dar University.

Methods: An unmatched case-control study was conducted among 158 cases and 318 controls of Bahir Dar university students from March 20 to May 10, 2010. Cases were students who received voluntary counseling and testing for HIV and controls were students who didn't receive voluntary counseling and testing. The study subjects were selected randomly from 452 cases and 2548 controls. Data were collected using a pre-test self-administered questionnaire.

Results: The median age of the study participants was 21 years for both cases and controls with a male to female ratio of **1.8:1.** Students, who had a good knowledge about HIV and VCT, were 2.4 times more likely to be tested than those who had a poor knowledge, [AOR=2.44 (95% CI: 1.39, 4.28)]. Students, who had positive attitude towards VCT were 2.2 times more likely to accept voluntary HIV testing than those who had negative attitudes, [AOR=2.23 (95% CI: 1.19, 4.16)]. Similarly, respondents who had HIV risks perception were about 5.4 times more likely to accept HIV testing than those who had no HIV risks perception [AOR=5.43 (95% CI: 3.38, 8.72)].

Conclusion: In order to promote VCT services, a training module on VCT needs to be included in their training curricula. In particular, more emphasis should be focused on the knowledge, attitudes and risk perceptions of VCT, for the students to internalize the risk of HIV so that they can take preventive measures.

Key words: VCT, University student, Ethiopia.

Abstract 3

PREDICTORS OF HIV COUNSELING AND TESTING AMONG PREGNANT WOMEN ATTENDING ANTENATAL CARE SERVICE AT BUTAGIRA AND ATAT HOSPITALS IN GURAGE ZONE; CASE-CONTROL STUDY, *Shikur Mohammed, Arba Minch University.*

Background: Because of under utilization of client-initiated HIV testing, the revised World Health organization policy statement on HIV testing recommended provider-initiated testing. The national prevention of mother to child transmission guideline in Ethiopia recommends HIV counseling and testing as a routine care for pregnant women. However, the acceptability of this approach and determinants has not been well studied using strong study designs and few available studies are cross-sectional.

Objective: Assess predictors of acceptance of HIV testing among pregnant women attending antenatal care service at Butagira and Atat Hospitals, Gurage Zone, South Ethiopia.

Method: A case-control study was conducted among 327 pregnant women in Butagira and Atat Hospitals from February18-March 25, 2011. Sample size was determined using the formula for two population proportion by considering one variable assumed to bring a difference between two groups. The sample size was allocated to each hospital based on the number of pregnant women visiting the hospitals. Subjects were identified based on the information obtained from the client card and the client's information about whether they were tested or not. Two controls were selected, immediately after one case was identified and interviewed. Data were collected through face to face interviews using a structured and pretested questionnaire. Data were edited, coded, entered, cleaned and analyzed using SPSS version16. Multiple logistic regressions were fitted to identify independent predictors of HIV testing acceptance.

Result: In this study married women living with their husbands were 4 times more likely to be tested compared to those whose partners lived away (AOR=4.2, 95% CI= 1.7, 11.2). Mothers who correctly identified MTCT as the route of HIV transmission were about 3 times more likely to be tested (AOR=2.9, 95% CI =1.5, 5.9). Similarly, women who attended at least two antenatal care visits were 3 times more likely to take the test compared to those mother who attended less than two visits (AOR=2.8, 95% CI=1.4, 5.6). Pregnant women considering themselves being at risk of acquiring HIV were about 3 times more open to accept HIV test when compared to those who did not take themselves to be at risk.(AOR= 2.5, 95% CI= 1.3, 4.6). Women who knew about the

existence of intervention that reduce the risk of MTCT of HIV infection were also 2 times more likely to have HIV testing compared to those who did not (AOR=2.2, 95% CI= 1.6, 4.9).

Conclusion and Recommendation: In conclusion living with husbands at the same place, identifying MTCT as a route of HIV transmission, the number of antenatal care visits of greater than two, perceived risk of acquiring HIV, knowing the existence of interventions that reduce MTCT were found to be independent predictors of HIV testing acceptance. Organizations should therefore give intensive and continued education, to both pregnant mothers and their partners, about prenatal HIV transmission, the role of HIV counseling and testing on the prevention of mother-to-child transmission of the virus and about the existence of interventions that reduce the possibility of prenatal transmission of the virus with emphasis on those couples who live apart.

Abstract 4

PATTERNS OF CONDOM USE AND ASSOCIATED FACTORS AMONG HIV POSITIVE CLIENTS AT FELEGE HIWOT REFERRAL HOSPITAL, NORTH-WEST ETHIOPIA: A COMPARATIVE CROSS - SECTIONAL STUDY, *Estifanos Yalew, BSC, MPH*, *Desalegn Tigabu, MD, MPH,; Solomon Meseret, BSc, MPH*

Background: As more and more people with HIV Human Immunodeficiency virus live longer and healthier lives, an increasing number of sexual transmissions of HIV may stem from those who know they are infected and engage in unprotected sex.

Objectives: To assess patterns of condom use and associated factors among HIV positive clients at Felege Hiwot Referral Hospital, Bahir Dar, North West Ethiopia.

Methods: A Hospital based comparative cross sectional study was employed from 1 to 30 August, 2010. Two hundred thirty and 224 clients were selected randomly among ART (antiretroviral treatment) case experienced and ART naïve group, respectively. Interview administered pre-tested and structured questionnaire was used. Data were entered and cleaned using EPI INFO 2000 and SPSS version 17.0 for descriptive and binary logistic regression analysis.

Results: One hundred nine (47.4%) on ART experienced and 113 (50.4%) among ART naïve groups were sexually active. The magnitude of inconsistent condom use among ART experienced and ART naïve was 44% and 55.8%, respectively. On multivariate analysis, ART naïve clients were more likely to use condom inconsistently (Adjusted Odds Ratio and 95% [Confidence interval]: 1.87 [1.96 – 3.62]) than those took the treatment. Being older in age meant inconsistent condom use in both groups. Being employed at the time of data collection (AOR=0.15 [0.04 – 0.6]) had higher risk of using condom inconsistently among ART naïve groups. Those who did not perceive to be stigmatized (AOR=0.15 [0.05 – 0.46]) were 85% lower at risk of practicing inconsistent condom use among ART experienced. Use of substances (AOR=0.14 [0.03 – 0.68]) were significantly associated with inconsistent condom use among ART experienced groups.

Conclusion and recommendation: Although inconsistent condom use was lower among ART experienced clients, a considerable risk of HIV transmission still exists in both groups and remains a cause for concern. Condom use with all partners irrespective of their sexual's HIV status should be given due attention and better effort is still needed to reduce stigma.

Abstract 5

MAGNITUDE OF UNPROTECTED SEX AND ASSOCIATED FACTORS AMONG HIV POSITIVE CLIENTS AT FELEGE HIWOT REFERRAL HOSPITAL, BAHIR DAR, NORTH WEST ETHIOPIA, *Estifanos Yalew, BSC, MPH., department of public health, faculty of health sciences, Wollega University; Dessalegn Tigabu, MD, MPH., department of epidemiology and biostatistics, school of public health, University of Gondar.*

Background: As more and more people with HIV (Human Immunodeficiency virus) live longer and healthier lives an increasing number of sexual transmissions of HIV may stem from those who know they are infected and engage in unprotected sex.

Objective: To assess the magnitude of unprotected sex and associated factors among HIV positive clients at Felege Hiwot Referral Hospital, Bahir Dar, North West Ethiopia.

Methods: Hospital based cross sectional study was employed from 1 to 15 August, 2010. Four hundred fifty four clients were selected randomly at the outpatient ART (antiretroviral treatment) clinic. Interview administered pre tested and structured questionnaire was used. Data were entered and cleaned using Epi Info 2000 and SPSS version 16.0 was also employed for descriptive, bivariate and multivariate logistic regression analysis.

Results: Almost half (48.9%) of the respondents were sexually active. The magnitude of unprotected sex among HIV positive clients were 49.9%. On multivariate analysis, being older age (Adjusted Odds Ratio and 95% [Confidence interval]: 0.41 [0.21 – 0.79]), urban residents (AOR=0.29 [0.1- 0.83] and member of association of PLWHA (people living with HIV/AIDS) (AOR=0.4 [0.17- 0.97]) were less likely to practice unprotected sex than its counter parts ART naïve clients were more likely to practice unprotected sex (AOR= 1.87 [1.96 – 3.62]) than ART experienced. Respondents who did not perceive to be stigmatized (AOR=0.35 [0.14 – 0.87]) were 65% lower at risk of practicing unprotected sex than stigmatized clients among HIV positive clients.

Conclusion and recommendation: The magnitude of unprotected sex was very high among HIV positive clients, a great risk of primary and secondary HIV transmission still exists and remains a cause for concern. Condom use with all partners irrespective of their sexual's HIV status should give due attention and better effort is still needed to reduce stigma.

Abstract 6

EFFECTIVENESS OF NON-FINANCIAL INCENTIVES IN STRENGTHENING THE MOTIVATION AND WORK PERFORMANCE OF VOLUNTARY COMMUNITY HEALTH WORKERS Yared *Amare, PhD.*

Background: The JSI Research & Training Institute, Inc. is implementing the Last 10 Kilometers (L10K) project in 115 woredas in Tigray, Amhara, Oromia, Southern Nations, Nationalities and People's (SNNP) regions. The project focuses on the mobilization of families and communities to engage more fully with the Health Extension Program. One of the components of the project utilizes Non-Financial Incentives (NFIs) to strengthen the motivation and work performance of Voluntary Community Health Workers (vCHWs).

Objective: Gauge the impact of non-financial incentives in strengthening the motivation and work performance of vCHWS.

Methods: The study used qualitative methods to collect data in Were Leke woreda in Tigray, Gondar Zuria woreda in Amhara Region, Limu woreda in Oromia and Arba Minch woreda in SNNPR. Two kebeles were purposively selected from each woreda. In each of the eight study kebeles, one focus group discussion and two in-depth interviews with vCHWs, and one key informant interview (KI) with an HEW and two kebele leaders were made. The transcripts of the interviews were analyzed qualitatively by reviewing, coding and synthesizing the textual data.

Results: The study found that NFIs such as festivals, certificates for vCHWs and model families, badges, performance reviews and follow-up visits by HEWs, quarterly and/or bi-annual evaluations were implemented in all the study sites. On the other hand, the incidence or adequacy of NFIs such us regular training for vCHWs and supportive activities by woreda and kebele officials were variable among the sites. Informants confirmed that such NFIs were effective in strengthening the motivation of vCHWs by enhancing community recognition and acceptance for them, building their competence and confidence, and facilitating information sharing and interaction among them. NFIs were also perceived to have a positive impact on the work performance of vCHWs in terms of frequency of household visits, involvement in implementing health-related activities and quality of work.

Conclusion: The study showed that the NFIs were generally effective in strengthening the motivation and work performance of vCHWs. To further enhance their effectiveness of NFIs, regular festivals, ongoing training for vCHWS, strengthened support for vCHWs

by woreda and kebele officials, social support groups and prizes for high performing kebeles and vCHWs are recommended.

Abstract 7

AZITHROMYCIN, FLUOROQUINOLONE AND CHLORAMPHENICOL RESISTANCE OF NON-CHLAMYDIA CONJUNCTIVAL BACTERIA IN RURAL COMMUNITIES, ETHIOPIA, <u>Bayeh Abera</u> (Msc)[1]*, Mulugeta Kibret (PhD)*

Objective: To determine profiles of non-chlamydia conjunctival bacteria and their antimicrobial susceptibility in adults who underwent trachomatous trichiasis surgery in rural areas of Ethiopia.

Methods: A cross-sectional study carried out in rural districts in West Gojam administrative zone. Conjunctival swabs were collected during surgery and transported using Stuart transport broth (Oxoid, UK). Antibiotic susceptibility of conjunctival isolates was determined for various conjunctival antimicrobials using the Kirby-Bauer disc-diffusion method.

Results: Non-chlamydia pathogenic bacteria were recovered from conjunctiva of 438 (31%) participants before treatment. The isolated conjunctival bacteria were *S. aureus*, coagulase negative *Staphylococci*, *Streptococcus* group (A, C, F and G), Enterococci*, S. pneumoniae*, *Moraxella* spp., *E. coli.*, *Citrobacter* spp., *Proteus* spp., *Klebsiella* spp., *Pseudomonas* spp. and *Enterobacter* spp. Overall, resistance rates of 57.8% to azithromycin and 68.5% to chloramphenicol were found. However, 86-94.4% sensitivity was demonstrated to ciprofloxacin and norfloxacin. A moderate sensitivity rate (61.8-78.4%) to ceftriaxone, tetracycline and co-trimoxazole was observed.

Conclusion: Fluoroquinolones active against the majority of bacterial isolates were potent in *in-vitro.* However, unacceptably high levels of resistance to azithromycin and chloramphenicol in rural communities indicated a need for further study and an antimicrobial resistance surveillance.

Keywords: Azithromycin, fluoroquinolone, chloramphenicol, non-chlamydia conjunctival bacteria.

Abstract 8

COMPARISON OF ANTIRETROVIRAL TREATMENT OUTCOME BETWEEN HEALTH CENTRE AND HOSPITAL TREATMENT NAÏVE HIV/AIDS PATIENTS; A RETROSPECTIVE COHORT STUDY IN SOUTHERN CENTRAL OROMIA, <u>Abebe Megerso Adlo,</u> MPH, BSc

Background: Although antiretroviral treatment (ART) services scaling have been up in the country during the past five years. But documented evidence showing the difference in the treatment outcomes between health centers and hospitals is not available.

Objective: To compare the survival rate and antiretroviral treatment outcome among ART naïve patients in a general hospital versus that of health centres and identify determinants affecting the outcome in both settings.

Design: A retrospective cohort study was conducted using secondary data from medical records of ART naïve patients collected between October 2006 and January 2010. The study compared the treatment outcome between health centers and general hospitals in south central Oromia regional state. Univariate and multivariate analyses were implemented using Kaplan Meier and Cox proportional hazard models.

Results: A total of 1895 (1307 hospitals and 588 health centers) patient records were followed for 27,990 person-month. During the study period 172 (9.1%) deaths and 235 (12.4%) lost to follow up (LTFU) were recorded. The incidence density of deaths among ART naïve patients was 62 per 1000 person-months and incidence of LTFU was 8.4 per 1000 person per month of observation. Risks of death and LTFU from ART treatment were the same between health center and hospitals HIV/AIDS patients. Independent predictors of the risk of death and LTFU (failure) for both categories of patients included being male an adjusted hazard ratio (AHR) of 1.4 (95% CI 1.1, 1.7), baseline performance scale three/four; AHR 2.4 (95%CI 2.0, 3.0); advanced disease stage; AHR 2.8 (95%CI 2.3, 3.4), baseline WHO stage, AHR 1.3 (95%CI 1.0, 1.6) and fair or poor adherence to ART; AHR 3.4 (95%CI 2.8, 5.2). Other socio-demographic and baseline variables had no associated with risks of death.

Conclusion: The ART service scaling up at health centres did not compromise the treatment outcomes in adult ART naïve patients. Important predictors of risk of death and lose to follow up among HIV/AIDS patients on ART were having a baseline performance scale of three/four, being male, having advanced disease and being fair to poor adherent to ART.

Recommendation: Therefore, all implementers involved in the field are advised to provide focused health education to HIV/AIDS patients and encourage them to start the treatment in health centres to reduce unnecessary crowding at the hospitals. Patients should be encouraged to start the treatment before the disease advances and adherence to the drug should be strengthened.

Abstract 9

L10K RAPID HOUSEHOLD HEALTH SURVEY: SNNP MOBILE PHONE SURVEY

Nebiyu Getachew, Ali Mehryar Karim and Agazi Ameha

Background: The WHO 30 x 7 cluster surveys also known as rapid surveys have gained popularity in monitoring program coverage because of their relative efficiency in data-based decision-making over large-scale surveys which take more to time make survey results available for program managers. Further improvements in the efficiency of the WHO rapid cluster survey can be achieved by using the Epi Surveyor, a survey data management and analysis system that uses mobile phones to collect data which is uploaded to a remote website to file and analyze. This paper presents an example of the use of the EpiSurveyor by the L10K project supports Ethiopia's Health Extension Program (HEP) through technical assistance and grants management to strengthen the bridge between households, the HEP, and the formal health system in order to achieve sustainable reproductive, maternal, neonatal, and child health (RMNCH) improvements and contribute towards achieving the Millennium Development Goals (MDGs) 4 and 5.

Objective: To monitor the adequacy of the changes in maternal and newborn health (MNH) knowledge and behavioral outcome indicators in the L10K areas of SNNP region test and document the Epi Surveyor, i.e., the mobile internet data collection technology, to assess its effectiveness.

Method: A quick cross-sectional survey of 380 (10 per Kebele) mothers with children of 0-11 months of age from 38 kebeles of 19 L10K intervention woredas in SNNP.
EPI Surveyor/Data Dyne web page was used for the designing the questionnaire, data collection and preliminary analysis. Two days of training was provided to 10 field supervisors who did the data collection for a period of one week during the month of July 2010.

Result: The result of the survey indicated that improvements have been observed in maternal and neonatal health. In doing so, the mobile phone data collection technology has been found an effective, fast, and efficient means. The use of Epi Surveyor reduced the data processing time of the quick survey by at least two weeks. Moreover, the technology helped ensure data quality by minimizing errors that could have occurred during data collection and entry.

Conclusion: The implementation of community-based strategies have contributed   to the improvement of the maternal and neonatal health situations in the selected kebeles of the SNNPR as compared to the baseline survey result used as a benchmark. The mobile phone technology, if used at scale, can provide accurate and fast data in which it can be used to generate valuable inputs for decision- making even in resource shortage settings.

Abstract 10

EVALUATION OF THE DIRECT AND BLEACH CONCENTRATION TECHNIQUES OF SPUTUM MICROSCOPY FOR THE DIAGNOSIS OF TUBERCULOSIS IN WESTERN AMHARA REGION OF ETHIOPIA, *Genetu Alem,MSc, Bahir Dar Regional Health Research Laboratory Center, Nigatu Kebede, DVM, MSC,Institute of Aklilu Lemma Pathobiology, Addis Ababa, Bayeh Abera, MSc, Bahir Dar University, Belay Bezabih, MPH, Amhara Regional State Health Bureau, Bahir Dar*

Background: The risk of spread of infection and emergence of drug resistant strains has created the need of quick, sensitive and specific diagnostic tests that improves sputum microscopy. The aim of this study was to evaluate different microscopic methods using Lewiston Jenson (LJ) culture as the reference standard.

Methods: A cross-sectional comparative study on sputum microscopy was conducted from November 2008 to February 2009 in three hundred-thirty sputum samples from 110 patients attending hospitals and clinics in Western Amhara Region. Sensitivity and specificity of direct smear microscopy bleach concentration Zehil Nelsen and aura mine O iLED Fluorescent microscopy methods were evaluated using LJ culture as a reference.

Result: Among 32 samples having positive results by LJ culture, 19 (59.3 %), 26 (81.2 %) and 30 (93.7 %) were positive by direct smear microscopy, bleach (NaOCl) concentration-ZN and Aura mine O iLED FM respectively. The sensitivity and specificity of the direct smear microscopy, NaOCl concentration-ZN and NaOCl concentration-Aura mine O iLED FM were 59.3% and 100%, 78.1% and 98.7%, 87.5% and 97.4%, respectively. The positive predictive value and negative predictive value of direct smear microscopy, NaOCl concentration-ZN and NaOCl concentration-Aura mine O iLED FM was 100% and 85.7%, 96.1%, and 91.7%, 93.3%, and 93.9 % respectively. Sensitivity increased by 22 % and 31.5 % when NaOCl concentrations-ZN and Aura mine O iLED FM were used. Direct smear microscopy had moderate agreement (K=0.624) with the reference standard while NaOCl concentration-ZN and NaOCl concentration-Aura mine O iLED FM had perfect agreement with LJ (K= 0.813, 0.865).

Conclusion and recommendations: Bleach concentration-aura mine O iLED could serve to improve sensitivity since it reduces the microscopic detection time by 25% and concentrates the pauci bacilli. Therefore, this study demonstrated that bleach-aramine O iLED FM method could widely be applied as routine procedure in all peripheral laboratories. However, further research should be required before widely advocating the method.

Key words: diagnosis of tuberculosis, direct smear, bleach, O iLED fluorescent microscopy.

Abstract 11

FAMILY PLANNING USE AND ASSOCIATED FACTORS AMONG PEOPLE LIVING WITH HIV/AIDS IN ADDIS ABABA, _Tariku Birhanu,_ _Bsc; Asmeret Moges, MSc, Addis Continental institute of public Health; Prof. Yemane Berhane, MD, MPH, Phd., Addis Continental institute of public Health; from October 2010 to May 2011_

Background: Ethiopia belongs to the heavily affected countries of Sub-Saharan Africa by HIV/AIDS, at a prevalence rate of 2.4% and an estimated 1,216,908 people living with HIV/AIDS in 2010. Besides the dominant heterosexual transmission, vertical virus transmission from mother to child accounts for more than 90% of pediatric AIDS.

Objective: To assess family planning use and associated factors among people living with HIV/AIDS in Addis Ababa.

Methods: An institution-based cross-sectional study design was employed from October 2010 to May 2011. A multi stage sampling procedure was used to select study participants. 628 PLHIV were selected using systematic random sampling technique from 10 health centers, who were first selected using a simple random sampling technique from 10 sub – cities. Data were collected using pretested, interviewer administered questionnaire, and double entered and cleaned using EPI info version 3.5.1, and analyzed using SPSS Version 16.0 computer soft ware.

Results: During the study time 266 (43.5%) of the study participants were found to be using at least one method of FP, of which 238 (89.4%) condom and 68 (25.5%) were using injectables while 197 (54.2%) resorted to abstinence from sexual intercourse. The desire for child by 94 (27.2%) of there was main reason mentioned for not using FP. Only 295 (48.3%) of the study subjects had discussion about FP and child bearing with their service providers and nearly half 130 (48.8%) of current FP users were getting the service from FP units. Educational status, number of alive children, time since diagnosis of HIV, having sex in the preceding 6 months and marital status showed statistically significant association with current family planning use (P<0.01)

Conclusion and Recommendations: More than half of the PLWHA in AA were not using FP during the study time, of whom nearly half were sexually active. And most of the non users had no discussion about FP and child bearing with their service providers. So, adequate counseling and discussion regarding issues like FP, child bearing and sexuality with fully integrated FP service in the ARV units may help in maximizing the uptake of FP methods by PLHIV in Addis Ababa.

Abstract 12

ASSESSMENT OF ISONIAZID PREVENTIVE THERAPY ADHERENCE AND ASSOCIATED FACTORS AMONG PLHIV ON ISONIAZID IN ADDIS ABABA,ETHIOPIA, *Melaku Berhe (HO,MPH), Meaza Demissie (MD, MPH, PhD), Addis continental Institute of Public Health.*

Background: Tuberculosis co-infecting with human immunodeficiency virus constitutes a large proportion of patients in Ethiopia. Isoniazid preventive therapy is recommended for treatment of latent tuberculosis infection. Non-adherence is the main problem to control tuberculosis. However the prevalence of adherence and associated factors have not been studied in those HIV positive patients who were on Isoniazid preventive therapy in public health facilities of Addis Ababa.

Objective: To assess the prevalence of adherence to Isoniazid preventive therapy and associated factors among people living with HIV in Addis Ababa.

Methods: A health facility-based cross-sectional study was made in Addis Ababa. ten health centers and 2 hospitals were selected randomly from a sampling frame that consisting of 24 healthcare service providers centers and 5 hospitals, patients were recruited on their way out to home from Dec 2010 to February 2011 till the required sample size was obtained. A total of 381 HIV positive patients, who were on Isoniazid preventive therapy were interviewed by trained data collectors. Data were double entered, cleaned, and analyzed using EPI Info version 3.5 and SPSS version 16.

Result: The prevalence of adherence to Isoniazid preventive therapy was found to be 89.5%.Those patients who had taken Isoniazid for >=5 months were more likely to be adherents than those who took 1-2 monhts AOR [(95%CI)= 5.091(1.412-18.359)]. Those who took the therapy as a result of friends' influence or behest were less likely to adhere than those who did so on their own (AOR [(95%CI)=0.096(0.011-0.815)]. Among the reasons mentioned by non-adherents for missing doses were forgetting, out of stock of Isoniazid in the health facilities and side effects.

Conclusion and Recommendation: The prevalence of adherence to Isoniazid preventive therapy in HIV positive patients was higher (84.86%) than what was reported in Dire Dawa and other Africa countries. Among the associated factors for adherence those patients, who took Isoniazid for >=5 months, were found to be more likely to be adherents than those who took it for between 1-2 months. Those who took the treatment through friends' urging were less likely to be adherents than those who did by themselves. Counseling those patients at the beginning of therapy is recommended. Addressing the reason for non-adherence through strong Information Education

Communication is also important to enhance adherence so as to control Tuberculosis.

Abstract 13

EFFECT OF COMMUNITY CONVERSATION TOWARDS VCT UTILIZATION IN RURAL SNNPR, ETHIOPIA, _Emebet Tekletsadik,_ MPH

Background: In contrast to many initiatives implemented to prevent HIV/AIDS infection; many countries have not so far achieved the planned reduction in HIV/AIDS infection as the main reason mentioned so far the low utilization of VCT for HIV/AIDS. Community Conversation (CC) is a community-based strategy meant to enhance the community to utilize VCT for HIV among many other functions.

Objective: This study was aimed at determining the disparity in knowledge, attitude and practice among VCT service user of population of 15-59 years age, between well and poor practitioners of Community Conversation in rural kebeles of Shebe Dino woreda, SNNPR.

Methodology: A cross-sectional comparative community-based study design was employed to compare the knowledge, attitude and practice of VCT service among 15-59 year age population of poor and good practitioners of kebeles in Shebe Dino woreda, from August 2010-May 2011. Kebeles were classified as poor or good based on their CC performance. A total of 6 kebeles (3 from each CC group) were selected by lottery method after stratifying each CC groups into three strata by their relative distance from the woreda capital. The number of study participants sampled from each kebele was proportional to the size of study population in the kebele. A total sample size of 462, 231 (50%) from each comparative group were selected and studied. The qualitative data was collected from Focused Group Discussion and analyzed by thematic analysis. A hierarchical logistic regression model was used to determine independent predictors of VCT usage in blocks of two at 95% CI.

Result: The two CC groups were homogeneous in their main socio-demographic profiles using two sample test proportions (P>0.05), and hence were comparable. The comprehensive VCT knowledge didn't show statistically significant difference between good and poor CC practicing kebeles, with a two sample proportion test of difference and 95% CI: 0.05 (-0.04, 0.14). But, knowledge only about the importance of the service, positive attitude and utilization of VCT service were statistically higher in good CC practicing kebeles than poor practicing kebeles (73.0% vs.54.1%, P < 0.001), (73.0% vs.54.1%, P < 0.001) and (97.8 vs. 93.8, P=0.034), respectively. Age group ranging 15-

24 years, single, trader, knowledgeable about HIV transmissions, and positive attitude about VCT services were independent predictors of VCT service usage.

Conclusion: CC does have any effect on knowledge only about the importance of VCT, attitude about VCT and practice, but not on comprehensive knowledge about VCT. VCT service usages depend on one's age, occupation, marital status and knowledge of HIV transmission. Therefore, there should be consistent monitoring and evaluation of the CC program, not only by the criteria in use but also in terms of its effect on KAP of the target population towards VCT and or HIV to strengthen CC in all CC kebeles by focusing on increasing the comprehensive knowledge of people about VCT service.

Key words: SNNPR, Shebe Dino woreda, knowledge, attitude and practice, VCT, good and poor community conversation practice.

Abstract 14

FACTORS INFLUENCING EXPOSURE TO HIV/AIDS AMONG HIGH SCHOOL STUDENT'S IN DESSIE TOWN, AMAHARA REGION *Getnet Kebede,* MPh

Background: High school students are particularly vulnerable to HIV because its main risk factors of transmission are common and mostly initiated at this school age and the higher proportion of sexually transmitted diseases, addictions to certain substances that begin usually at this age. Moreover, high-school students sexually active, generally do not have a stable sexual relationships and often are ignorant of the health risk of their sexual behavior.

Objective: To find out the assess factors influencing high-school student's exposure to HIV/ AIDS in Desie town, Amhara, Regional state.

Methods: A cross-sectional study was conducted among selected high-school students in Desie to assess factors influencing their exposure to HIV/AIDS. A total of 756 students were included in the study using stratified random sampling. First, the lists of the high-school were listed and stratified to the student's grades (stratum grade 9, 10, 11, 12) and study participant were included from each stratum proportionate to their size. To determine the factors associated with HIV exposure were first tested using univariate analysis. The parameters with a P value less than 0.05 were put into the model of a multivariate analysis.

Results: A total of 756 high-school students were analyzed. Only 169 (22.4%) of the respondent reported that they had practiced sexual intercourse. 64 (37.8%) were below the age of 18 years; 84 (11.10%) of them had already developed a risky sexual behavior. Students, who were classified as Alcohol drinkers, khat chewers and cigarette smokers, 2.7,2.6 and 5.5 times more likely higher in develop risky behaviors towards HIV/AIDS (P.value <0.05).

Conclusion: The findings of this survey provided the ground to conclude high-school students were engaged in high risk behavior that can exposed them to HIV/AIDS. The risk behaviors are early sexual debut, having multiple sexual and causal partners and having sex with commercial sex workers, and unprotected sex (no use of condoms).

Abstract 15

ASSESSMENT OF DATA QUALITY OF ROUTINE IMMUNIZATION IN SILTI DISTRICT OF SNNPR *Melisachew Adane, MPH, MSc, CORE Group Ethiopia Program Officer, Filimona Bisrat MD, MPH, Director of CORE Group Ethiopia, Alemayehu Worku PhD., School of Public Health, Addis Ababa University.*

Background: Immunization coverage shows an increment worldwide including Ethiopia in the past few years but the validity of the facility reports for measuring change over time has been questioned. Many studies found and reported that discrepancies in reporting of coverage data as well as weak supporting mechanisms to ensure data quality at all levels of the health system continue as a challenge.

Objective: To assess the quality of routine immunization data from health facility registers at district level in Silti district of Southern Nations, Nationalities Peoples Region.

Methodology: The facility-based cross-sectional study used secondary and primary data based on quality index standard questionnaire and observation checklists at facility level. In Silti district of SNNPR. The WHO immunization data quality audit procedure was employed to select cluster health centers and health units in the district. Accordingly, 24 health units and 3 cluster health centers were selected using probability proportionate to size estimated by the number of Penta-3 vaccine given during the audit year. In line with this, health extension workers and other health workers responsible for immunization service at all levels were interviewed. A descriptive analysis was done using Excel spread sheets having an additional program for quality index analysis and for internal comparison of means of groups and correlation test SPSS version 15.0 was used.

Results: The study showed that the immunization data quality monitoring system was 70% for districts, 54 % for cluster health center and 71% for health units. Health units with trained health worker on EPI and related issues had higher mean score of quality index (78.2) than health units without trained staff (55.9). There was a significant mean difference between the two groups 22.4 (P < 0.001). Similarly, health units that had regular supervision from district health offices had a mean score of 79.5 which was higher than the mean score of health units with less frequent supervision (60.7) and the mean difference was significant 18.8 (P < 0.001) between the two groups. This study also indicated a tendency of over reporting of vaccinated children (recounted number to health unit and cluster health center reports) for all antigens. The overall weighted accuracy ratio of penta-3 coverage of the district was 77% suggesting over reporting to the next higher level by health units and cluster health centers.

Conclusions and Recommendations: In general the quality index analysis of the district was in the acceptable limit. The accuracy ratio for penta-3 reporting indicated overestimation of coverage than the actual. This poor performance is highly associated with training and supervision. Therefore, the district health office should provide in-service training for health workers and frequent supervision of facilities. On top of this, performance evaluation of health units should not be only based on coverage of specific antigen but also quality of data from registration to reporting.

Abstract 16

PATIENT RELATED CHARACTERISTICS ON THE CHOICE OF ANTIHYPERTENSIVE MEDICATION IN JIMMA UNIVERSITY SPECIALIZED HOSPITAL, SOUTH WEST ETHIOPIA, _Getachew Alemekere,_ _Chalachew Teshale, Alemayehu Berhane; Jimma University, school of pharmacy_

Background: Previously hypertension and other Cardio-Vascular Diseases (CVD) were considered as the diseases of people of the developed countries. Nowadays these have become prevalent, in developing countries too. Despite this, there is little concern about them and data on factors affecting the choice of antihypertensive medication is very rare in Ethiopia.

Objective: To determine the effect of some selected patient related characteristics on the choice of antihypertensive medication by elderly people in Jimma University Specialized Hospital

Methods: A cross-sectional retrospective study was used on cards of patients aged 65 and more, with documented arterial hypertension treated with at least one antihypertensive drug. Some common patient related characteristics (socio-demographic, clinical and comorbid conditions) were evaluated for their influence on the choice of antihypertensive.

Result: In the study 135 patient cards were used of these 73.33% were male and 26.67%were female. 9.62% of the patients had poly morbidity (>4 diseases).The commonly used antihypertensive drug was diuretics (37.34%). Patients with polymorbidity had higher odds of β blocker use (OR: 3.45) and methyldopa use (OR: 2.5) than patients with no polymorbidity. Polymorbidity has significant statistical association to β blocker use (p<0.05). But, the odds of angiotensin converting enzyme inhibitors (ACEI) and β blocker use were higher in males than in females (OR: ACEIs 1.75 and β blocker: 1.52). The odds of ACEI use was much higher than BB use for diabetics as compared to nondiabetics (OR: 19.15 and 4.75, respectively). Cardiovascular accidents had a statistically, significant association with diuretics, β blocker, ACEIs and methyldopa use. The odds of ACEI use was higher than diuretics use in patients with congestive heart failure.

Conclusion: It was found that socio-demographic, life style and clinical factors including co morbidity greatly influence the choice of antihypertensive therapy.

Abstract 17

ATYPICAL MEASLES OUTBREAK IN WESTERN AND NORTHWESTERN ZONES OF TIGRAY REGION, DURING OCTOBER 2010 – JANUARY 2011, *G Negash , D Tikuye, T Gebresellassie, M Ibrahim R Luce , A Addisse, Z Hailemariam, A Bekele, H Sebagades*

Background: Measles is a highly infectious virus transmitted through contact with fluids from an infected person's respiratory secretions. Measles cause high morbidity and mortality particularly in developing countries. An average of 10-15 measles cases per year were reported in western and northwestern zones of Tigray region during the 4 years prior to the study. We investigated extended measles transmission in a remote area to confirm the existence of an outbreak, identify the etiologic agent and provide guidance on prevention and control measures.

Methods: Suspected measles case was defined as any person with fever and maculopapular rash, and either cough, conjunctivitis, or coyrza or a patient diagnosed with measles by a clinician. during January 28- 31, 2011 attempts were made to identify all cases by collecting a line list of cases from health facilities in the affected zones and data was analyzed by MS-Excel. Blood specimens from 5 suspected cases were collected in December 2010.

Result: From October 2010 to January, 2011 a total of 408 clinically suspected cases and 16 deaths were reported. The case fatality rate was 4%. The median age of suspected cases was 18.3 years (range 3 months-36 years) and 228 (56%) cases were ≥ 15 years of age. Three quarters (75%) of the cases were male. The majority of cases, 352 (88%), were non vaccinated or had unknown vaccination status**.** The attack rate of 10/10,000 was the highest in the western Zone where 379 (93%) cases were reported. In the northwestern Zone, there were 29 (7.1%) cases with an attack rate of 2/10,000. Of the 5 blood specimens collected for testing, 3 (60%) were positive for measles specific IGM.

Conclusion: A laboratory confirmed outbreak of measles occurred over a period of 5 months affecting primarily those ≥15 years of age. The older age of those affected in this outbreak combined with low levels of measles immunization suggests that both routine and supplementary immunization activities need strengthening Immunization campaigns may need to include older ages groups to improve herd immunity.

Keywords: Measles, measles outbreak, Ethiopia.

Abstract 18

AVILABLITY OF MEDICAL EQUIPMENTS AND CONSUMABLE COMMODITIES FOR URBAN HEALTH EXTENSSION PROFESSIONALS IN USAID/UHEP OPERATIONAL TWONS: ONE GAP ANALISIS ASSESMENT *Fisseha Eshete* , MPH

Introduction: In 2001, the midterm and annual review meeting of the Health Sector Development Program I (HSDP I) of Ethiopia recommended the need for an innovative community-based health care delivery system through the implementation of the health extension program (HEP). Since then, the HEP has been the flagship program for the government of Ethiopia. Building on the experiences of the rural health extension program, Ethiopia has been implementing the urban health extension program (UHEP) to provide public health information and services to urban population. The program addresses primary health care components including HIV and AIDS control. To provide the service, more than 4000 nurses were trained to become Urban Health Extension (UHE) professionals.

According to the UHEP implementation manual, the UHE professionals are supposed to be provided with medical equipment and supplies as well as HIV quick test kits. However, after the training and deployment of more than 4000 nurses, there is no data on the number of the UHE professionals who have received the medical equipment and supplies. The purpose of this survey is therefore to map out the distribution of the basic medical equipment and consumable commodities that should be available to the UHE professionals.

Objectives: The objectives of the survey were:-
- To determine the number of UHE professionals with and without medical equipment and consumable commodities.
- To ascertain the distribution of medical equipment and consumable health can commodities in major UHEP operational towns.
- To provide data for decision making regarding the procurement and continuous provision of medical equipment and supplies listed in the UHEP operational manual.

Methods: A **c**ross-sectional institution based survey was conducted. The data was collected from 19 town health offices, 63 health centers in the towns and 8 non-governmental organizations across 7 regional states of Ethiopia. Trained health professionals with a minimum of first degree collected the data using a structured

questionnaire prepared by the investigators. The data was entered to and analyzed using spread sheet.

Results: At the time of the survey, 797 UHE professionals were deployed in the 19 towns. They were over seen by 121 UHEP supervisors and closely worked with 65 health centers. Of the 19 town health offices covered by the assessment, 82% (16/19) of them had received at least one medical equipment or consumable health care commodities listed in the UHEP standard operational manual (Table 1). Among the 797 UHE professionals working in the towns, 81.5% (650/797) UHE professionals received some sort of medical equipment and/or consumable commodities and the remaining 18.5 % (147/797) of the UHE professional had never received any medical equipment or consumable commodities.

Abstract 19

ASSESSMENT OF HEALTH PROBLEMS ON RETURNING MIGRANTS FROM ABROAD, BATI *WOREDA*, *AMHARA* NATIONAL REGIONAL STATE, *Bereket Yonas, MPH, Concern Worldwide - Ethiopia*

Background: The relationship between migration and health is complex; it can have either positive or negative effects. In order to explore migration as a health risk factor, information is needed on the type of migration and reasons for it, factors in both the sending and receiving communities.

Objective: To assess health hazards of migrants return from abroad (Djibouti, Somalia, Yemen and Saudi Arabia), *Bati Woreda*, *Amhara* National Regional State.

Methods: A cross-sectional survey for quantitative study having a sample size of 390 (entire returnees) and narrative analysis for qualitative study was conducted in five selected *Kebeles* of the *Woreda*. Face-to-face, focus group discussions and in-depth interviews methods were employed for data collection. Descriptive statistics were performed using SPSS version 15.0 statistical software packages for a quantitative analysis and Open Code version 3.4 statistical software for a qualitative one.

Results: The magnitude of health problems while travelling to the destination country were 39%. Diarrhea with abdominal cramp (31.6%) and malaria (10.5%) were the leading illnesses in acute form were experienced. After controlling the possible confounders in a binary logistic regression, age group greater than 35 years (AOR=3.480; 95% CI of 1.725-7.019), being able to (AOR= 2.486; 95% CI 1.165-5.304), jobless and a house wife (AOR= 2.167; 95% CI 1.291-3.638 and AOR=5.277; 95% CI 2.171-12.825, respectively), and the presence of better employment opportunities and preferable living condition as pull factors (AOR=8.612; 95% CI 3.160-23.473 and AOR=6.351; 95% CI 1.888-21.364, respectively) were found to have a significant statistical association with suffered health hazards.

Conclusion: Since the migrants were travelling through illegal routes they were highly exposed to health hazards. Unemployment (57.2%) was the most common push factor and better employment opportunities (79.2%) were the major pull factors described by the returnees for getting out of the country.

Abstract 20

SUBSTANCE USE AND SEXUAL HIV-RISK BEHAVIOURS AMONG DILLA UNIVERSITY STUDENTS, ETHIOPIA; _Moges Tadesse, BSc, MPH; Dilla University, School of health sciences_

Background: In Ethiopia, as in other areas of the world, substance use and sexual behaviour are common and sometimes problematic among particularly the youth. Substance abuse facilitates the spread of HIV infection and it can be defined as the repeated use of a substance even with the knowledge of its negative health consequences. Abused substances may be legal or illicit and addiction plays a major role in substance abuse, and behavioural addictions, such as sex addiction, leading to important social, and medical consequences.

Objectives: A cross-sectional study was carried to explore the relationship between substance use and sexual HIV-risk behaviors among Dilla University students in order to understand how HIV risks develop for this vulnerable population.

Methods: A sample of 610 students were interviewed in 2011 through multistage sampling. Data were collected using quantitative and qualitative. Bivariate analyses were performed to examine demographic and sexual HIV-risk behavior differences among students with and without recent substance use. Logistic regression was used to examine associations between substance use and sexual HIV-risk behaviors.

Results: In the study, the mean age of respondents was 18.8 years. The most common substances used were _alcohol_ and _khat_. Daily Khat intake was associated with unprotected sex: adjusted OR (95% CI) = 2.28 (1.90, 2.68). Alcohol use was also significantly associated with having three or more sexual partners as well as with having unprotected sex with a long-term partner when compared to those not using it: OR (95% CI) = 3.00 (2.34, 3.89). Being male and having sex with commercial sex workers were also related to both alcohol drinking and khat chewing.

Conclusion and recommendations: High rates of substance use and unprotected sex may have unintended health consequences for university students. Alcohol and khat were found to be significant factors for HIV-risk behaviours among the study population. The need for health education to bring about behavioral changes and further study to identify the prevalence and role of substance in exposure to HIV infection in this vulnerable segment of the population is recommended.

Keywords: Substance use, HIV risks behaviours, Students, Dilla University.

Abstract 21

ON TB TREATMENT SURVIVAL OF HIV POSITIVE TB PATIENTS ON SHORT COURSE CHEMOTHERAPY IN SOUTHERN ETHIOPIA: A RETROSPECTIVE COHORT STUDY, _Debebe Shaweno_, MPH in Epidemiology

Background: In contrast to many initiatives implemented to tackle tuberculosis, many countries have not so far reached the targets set by WHO. The main reason mentioned for this was the impact of HIV infection. This study tried to determine the impact of HIV/AIDs on the survival of TB patients.

Objective: To compare the treatment survival between HIV positive and negative TB patients on Directly Observed Therapy (DOTs).

Methods: A retrospective cohort study design was employed to compare the TB treatment survival between the exposed, HIV positive (n=370) and non-exposed, HIV negative TB patients (n=370) who were going through the short course DOTs in the Hawassa Health Center from 2006-2010. Patient's HIV status during the diagnosis of TB or initiation of DOTs was considered as an exposure and the time until TB treatment, death was considered as an outcome variable. All patients with TB treatment outcomes other than death were censored, and death was considered as a failure.

Results: The risk of death was statistically higher among TB/HIV co-infected patients: AHR=1.6, 95%CI (1.01-2.6) during the course of DOTs. This risk was not different between the exposed and non-exposed during the intensive phase (P=0.15), but significantly higher in the exposed during the continuation phase (p=0.0003). Regarding survival of TB patients, the rate was lower for the exposed patients (Log rank test= 6.90, df= 2, P= 0.008).When adjusted for covariates, the survival probability was <15% for the exposed but >85% in non-exposed TB patients at the end of the DOTs period (8th month). The independent predictors of death, while on treatment were age, weight and HIV infection.

Conclusion: TB treatment survival was substantially lower in HIV infected TB patients especially during the continuation phase because of the increased death. Therefore, targeted and comprehensive management of TB/HIV with a strict follow up should be considered throughout the whole course of DOTS for such group of patients.

Key words: TB treatment, survival of TB patients, HIV positive, Hawassa health center.

Abstract 22

ESTABLISHING REFERENCE INTERVALS FOR COMPREHENSIVE METABOLIC PANEL ANALYTES IN CORD BLOOD AND INFANTS, *Mulugeta Melkie,* *Samuel Kinde, Prof. Tilahun Teka, Dr. Mahlet Yigeremu, Paulos Nigussie, Tatek G/Egziabher, Shawel Asrat*

Background: Establishing age and gender specific reference intervals (RIs) is crucial for screening, diagnosis and monitoring of many pediatric diseases and disorders. However, the existing RIs for comprehensive metabolic panel (CMP) analytes of pediatric population may not be used for Ethiopian children in one or another way since the intervals were established mainly for Caucasian children and decades ago with methods and instrumentations that are now obsolete.

Objective: To establish reference intervals for comprehensive metabolic panel analytes in cord blood and infants.

Materials and Methods: A total of 117 infants and newborns were included from Tekle Haimanot Health Center and Tikur Anbessa Specialized Hospital (TASH). Cord blood samples (from newborns) and venous blood samples (from infants) were collected and analyzed in TASH laboratory using HumaStar 300 and AVL (9181) ISE analyzer from December 15, 2010 to April 10, 2011. All pre-analytical, analytical and post-analytical aspects were thoroughly controlled. A robust, CLSI/ IFCC recommended, method was used for the determination of upper and lower end points covering 95% of the reference value of each analytes with respect to 90% CI using MedCalc® software.

Result: Combined RIs for newborns and infants were established for albumin, AST, ALP, direct bilirubin, total bilirubin, creatinine, urea/BUN, Na^+, K^+ and Cl^- to be 3.88-5.82g/dl, 16.1-55.4U/l, 130-831U/l, <0.41mg/dl, <1.37mg/dl, 0.05-1.64mg/dl, 3-25.1mg/dl, 126-143mmol/l, 4.01-7.9mmol/l and 99.7-111mmol/l, respectively. But, separated RIs were indicated for glucose, total protein, ALT and GGT as 38.8-118.8 mg/dl and 48.9-97.3mg/dl glucose, 4.38-8.67g/dl and 5.99-7.91g/dl total protein, 1.2-23.1U/l and 6.94-24.8U/l ALT; and 30.6-160.7U/L and 10-28.2U/l GGT for newborns and infants, respectively. Some maternal, neonatal and infantile factors were identified to affect the values of analytes.

Conclusion and Recommendations: Almost all analytes were completely different from previously reported values for other target populations of similar age; textbook and kit insert values that were also different from the ones provided for adult populations. Hence, interpretation of values of these analytes in newborns and infants of our

population sounds better to be performed by these RIs taking the effect of some maternal, neonatal and infant factors on the values of analytes into account.

Key words: Comprehensive metabolic panel, Robust Method, Reference interval, Cord Blood Infant.

Abstract 23

INSTITUTIONAL DELIVERY SERVICE UTILIZATION AND ASSOCIATED FACTORS AMONG MOTHERS WHO GAVE BIRTH IN THE 12 MONTHS PRIOR TO THE STUDY IN MUNESA WOREDA, ARSI ZONE, SOUTH EAST ETHIOPIA, *Abdella Amano,* BSc, MPH

Background: Reducing maternal mortality is a global priority that is particularly urgent in developing countries including Ethiopia. The key strategies to reduce Maternal Morbidity and mortality are increasing institutional delivery service utilization of mothers under the care of skilled birth attendants; however, this service is significantly low in Ethiopia in general as well as in Oromia Regional State.

Objective: To assess institutional delivery service utilization and associated factors among mothers who gave birth in the preceding 12 months prior to the study in Munesa Woreda, Arsi Zone, Southeast Ethiopia.

Methods: A community-based quantitave cross-sectional study made from April 1- 20, 2011, stratified cluster sampling was used to get the total sample size of 855 participants.

Results: The study revealed that 12.3% of the mothers delivered in health facilities. Urban mothers (AOR=2.27, 95%CI: 1.17, 4.40), age less than 20 years (AOR=6.06, 95%CI: 1.54, 23.78), secondary and above education of the mothers (AOR=4.31, 95%CI: 1.62, 11.46), secondary and above education of the husbands (AOR=2.77, 95%CI:1.07, 7.19), mothers with para one (AOR=2.41,95%CI:1.17,4.97), ANC visit during the last pregnancy (AOR=4.18, 95%CI: 2.54, 6.89) and knowledge of the mothers about the service (AOR=2.07, 95% CI: 1.15, 3.74) had significant association with institutional delivery service utilization.

Conclusion: Institutional delivery service utilization was low in the study area. Lack of knowledge, socio-demographic and cultural factors were important factors affecting institutional delivery service utilization. Increasing awareness and knowledge of mothers and their partners about the benefits of institutional delivery services are recommended.

Abstract 24

ASSESSMENT OF SEXUAL BEHAVIORS AND FACTORS INFLUENCING RISK PERCEPTION ABOUT HIV/AIDS AMONG PREPARATORY STUDENTS IN ADAMA TOWN, EAST SHOA ZONE, OROMIA REGION, ETHIOPIA, 2011, *Ketema Gashaw (MPH)*

Background: Globally an estimated 11.8 million young people aged 15 to 24 are living with HIV/AIDS. Each day, nearly 6000 young people between the ages of 15 and 24 become infected with HIV. In Ethiopia there are currently 1.2 million PLHIV, with an adult HIV prevalence of 2.4%. This study showed that as high as 48.2% of in-school youth engaged in risky sexual behaviors considered themselves to be at no or low risk of HIV infection.

Objective: To look into sexual behaviors and identify factors influencing risk perception regarding HIV/AIDS among preparatory students in Adama town.

Methods: This cross-sectional survey was conducted from December 27, 2010 to January 12, 2011. A quantitative study was carried out based on a self-administered questionnaire among 737 in-school youth with boys and girls a 97.23% response rate. To support the quantitative findings, a qualitative study was also made using four focus group discussions. Quantitative data was analyzed using SPSS16 version and qualitative data by thematic analysis.

Results: Out of the total respondents 47.1% were males and 52% were 11th graders. About 19.7% of the respondents were sexually experienced. Thirty Six (24.8%) of the sexually experienced respondents reported that they had more than one sexual partners and 7 (4.8%) had sex with commercial sex workers. Among the sexually active respondents, 21 (22.1%) had never used condom and only 37 (38.9%) used condom consistently. Only 16 (2.2%) of the participants perceived that they were at risk of HIV infection. In a multivariate analysis, being female (AOR= 0.61 (0.39, 0.94), older (20-24 years) AOR=3.69 (2.09, 6.54), and chewing Khat AOR=3.96 (2.34, 6.69) with 95% CI have shown significant association with sexual experience.

Conclusions: Students began intercourse earlier, practicing sex with multiple partners, and with commercial sex workers, and a low rate of condom use during their sexual encounter. They had very low personal risk regarding towards HIV infection

Abstract 25

PREVALENCE AND DETERMINANTS OF TB IN HIV INFECTED PATIENTS IN YIRGACHEFFE HEALTH CENTER, SOUTHERN ETHIOPIA, *Debebe Shaweno, Gutema Wako, Habtamu Gebremeskel, Harun Aliyi, Kahsay Desta, Kelem Mekuria, Limi Basha*

Background: Tuberculosis and HIV have been closely linked since the emergence of AIDS. HIV infection has contributed to a significant increase in the worldwide incidence of TB affecting its prevalence and incidence through reactivation and acquisition of infection (re-infection).

Objective: To determine the prevalence and determinants of TB in HIV patients attending HIV care unit in Yirgacheffe health center, Southern Ethiopia.

Methods: A retrospective register-based study was done by reviewing a log book and patients charts of the precedingt four years from 1999 to 2003 E.C. Prevalence rate was used to calculate the magnitude of TB. A multivariate logistic regression model at 95% CI was used to determine independent predictors of TB/HIV co-infection.

Results: The data of 389 consecutive HIV positive patients under chronic care were reviewed. About 62.5% of the study participants were in pre-ART. Around 60% were female and more than 94% were older than 15 years. A larger proportion of the patients were co-infected with smear negative PTB; 63.8 % followed by smear positive TB; 35.5 %. Co-infection rate was not different by sex (p=0.32).The prevalence of TB in HIV infected individuals was 134 (34.5%). The prevalence of TB among ART and pre-ART patients was not statistically different (p=0.4) (36.9 %(54/146) Vs 32.9 %(80/243)). CD_4 count at the time of HIV diagnosis and cotrimoxazole prophylaxis were found to be the independent predictors of TB/HIV co-infection according to a multivariate logistic regression model. The odds of having lower CD4 level at the time of HIV diagnosis was higher in patients with TB/HIV co-infection compared to those having only HIV infection. With a reference CD4 count of ≥500 cells/mm^3 at the time of HIV diagnosis, the odds of having a CD4 count between 200-500 was 2.7 for individuals with TB/HIV co-infection with AOR 2.7 (1.4-5.1) compared to individuals with only HIV infection. Similarly the odds of having a CD4 count of <200 cells/mm^3 was 4.9 with AOR: 4.9 (2.2-10.9). Cotrimoxazole prophylaxis was associated to a lower prevalence of TB in HIV positive patients (AOR: 0.52(0.94-0.29)).

Conclusion: The study found out a high prevalence of TB in HIV positive patients that was not statistically different between ART and pre-ART patients. The prevalence of TB is higher in individuals with a low CD4 count at the time of HIV diagnosis. The prevalence

of TB was found to be lower in individuals taking cotrimoxazole prophylaxis perhaps because of the low incidence of other conditions which mimic smear negative pulmonary TB in those patients who take cotrimoxazole which otherwise would have been treated as pulmonary TB. Therefore, TB screening and subsequent management should be intensified in all HIV positive individuals especially in those with low CD4 count. Taking cotrimoxazole prophylaxis should be strengthened by HIV positive individuals as it reduces incidence of other opportunistic infections mimicking smear negative pulmonary TB, so that the number of patients misdiagnosed and mismanaged as TB victims will eventually be reduced.

Key words: Prevalence of TB, determinants, Yirgachefe health center.

Abstract 26

OUTCOMES OF ANTIRETROVIRAL TREATMENT PROGRAM AT A REFERRAL TEACHING HOSPITAL IN NORTH WEST ETHIOPIA: A RETROSPECTIVE STUDY.

Mamo Wubshet, PhD fellow, College of Medicine and Health Sciences, University of Gondar; Yemane Berhane, PhD, Addis Continental Institute of Public Health, Addis Ababa; Alemayehu Worku, PhD., Department of Community Health, Addis Ababa University; Yigzaw Kebede, MD, MPH., College of Medicine and Health Sciences, University of Gondar, Ermias Diro, MD+., College of Medicine and Health Sciences, University of Gondar,

Background: Ethiopia has aggressively scaled up free AIDS treatment and access since 2005. The program has benefited a large number of patients who otherwise could not get access to such therapy. However the poor retention in the program is a very serious issue.

Method: A retrospective study was conducted to describe the long term antiretroviral treatment outcomes of adult AIDS patients at the University of Gondar Hospital is ART clinic. Data were collected from patient cards. All adults, non-pregnant, AIDS patients enrolled in the treatment program from 1 March 2005 to 30 August 2010 were eligible for the study. We performed survival analysis to determine the retention in care.

Results: A total of 4500 patients were enrolled in the ART program between March 2005 and August 2010. . At the end of the 66 months of the program initiation 60.26 % of patients were retained in the treatment, 7.17% had died, 18.39% were lost to follow-up, and 14.28% transferred to other facilities. About 60% of deaths and 69% of the lost to follow-ups occurred in the first year of treatment. The median survival time for death was 8.5 months (IQR 3.8-17.6).

Conclusion: Early deaths and lost to follow-up significantly reduced retention of patients in AIDS care in the first year of treatment. Strengthening patient monitoring in the first year can help reduce the death toll and increase retention.

Abstract 27

FACTORS INFLUENCING UTILIZATION OF ANTENATAL AND DELIVERY CARE SERVICES AMONG WOMEN OF CHILD BEARING AGE (15-49 YEARS) IN BURJI SPECIAL WOREDA, SNNPR, ETHIOPIA. *Addisu Alemayehu, MPH*

Background: Every year, approximately 536,000 maternal deaths occur in the world due to pregnancy related complications of which over 95% occur in sub-Saharan Africa and Asia. One explanation for such poor health outcomes among women in these countries including Ethiopia is the low level use of ANC and delivery care services.

Objective: This study was aimed at assessing the factors influencing utilization of antenatal and delivery care services in Burji special woreda, SNNPR, Ethiopia.

Methods: A community-based cross-sectional study that used both quantitative and qualitative methods of data collection was carried out in Burji special woreda in March 2011. The study included 1 urban and 8 rural kebeles with a total sample size of 773 respondents that were selected by multistage while purposive sampling was used to select 40 discussants (men and women) for four FGDs. Quantitative data was edited, coded and entered into SPSS version 16 by which also analysis was done. Whereas, qualitative data was analyzed manually.

Results: The study revealed that the proportion of women who received ANC was 55.6%. Only 16.4% mothers delivered at health institutions and only 15 % of total deliveries were attended by skilled birth attendants. Residence (AOR=4.657; 95% CI=1.937, 11.198), monthly income and maternal education were major determinants of ANC service utilization and residence (AOR=8.061; 95% CI=4.145, 15.675), mothers education and ANC attendance (AOR=0. 199; 95% CI=0.108, 0.365) were determinants of delivery care service use after adjusting for other variables. These findings were also supported by FGD results where economic constraints, transport problems and inaccessibility of health facilities were important factors for low utilization of maternal health care services.

Conclusion: This study revealed that the proportion of ANC and delivery care services users was very low. Economical, health facility related and social factors (education for example) were identified as contributors to the low use of maternal health care services. Hence, effort should be made to improve formal education for mothers and girls, facilitate easier accessibility and strengthening the maternal health care services delivered.

Key words: utilization, Antenatal care, Delivery care services, Burji, Southern Ethiopia

Abstract 28

INFANT FEEDING PRACTICE AND ASSOCIATED FACTORS AMONG HIV POSITIVE MOTHERS ATTENDING PREVENTION OF MOTHER TO CHILD TRANSMISSION AND ANTIRETROVIRAL THERAPY CLINICS IN GONDAR TOWN HEALTH INSTITUTIONS, NORTHWEST ETHIOPIA. *Dagnachew Muluye, BSc, MSc; Desalegn Woldeyohannes, DVM, MSc, Assistant Professor; Mucheye Gizachew, BSc, MSc; Moges Tiruneh, MSc., PhD, Professor*

Introduction: It has been estimated that 430,000 children under 15 years of age were newly infected with HIV in 2008, and more than 71% were living in sub-Saharan Africa. In the absence of intervention to prevent mother-to-child transmission, 30-45% of infants born to HIV-positive mothers in developing countries become infected during pregnancy, delivery and breastfeeding.

Objective: The aim of this study was to assess infant feeding practice and associated factors of HIV positive mothers attending prevention of mother to child transmission and antiretroviral therapy clinics in Gondar town health facilities, Northwest Ethiopia.

Methods: An institution-based cross-sectional study was conducted from January to May 2011 among all HIV positive mothers with less than two-year-old children attending prevention of mother to child transmission and antiretroviral therapy clinics in Gondar town health institutions. A structured pre-tested questionnaire using interview technique was used for data facilities. The data was entered and analyzed using the SPSS version 16 statistical package.

Result: A total of 209 HIV positive mothers were included in the study. Out of these, 187 (89.5%) had followed the recommended way of infant feeding practice while a significant percentage (10.5%) had practiced mixed breast feeding. In a multivariate analysis, disclosure of HIV status to their spouse (AOR=7.746, 95%CI=1.11-53.97), being advised/counseled about infant feeding, insufficient breast milk (AOR=0.143, 95%CI=0.031-0.658) and occupational status (AOR=14.631, 95%CI=1.36-156.40) were found to be independently associated with the recommended way of infant feeding practice. Lack of resource, stigma of HIV/AIDS, and husband's opposition were also seen as factors that influenced the choice of infant feeding options by respondents.

Conclusion and Recommendations: Higher proportion of respondents used the WHO as well as by Ethiopian Ministry of Health recommended way of infant feeding practice. However, mixed feeding, an undesirable practice in infant feeding was found in this study. Infant feeding education that is aligned to a national policy should be

strengthened in primary healthcare, particularly in situations where prevention of mother to child transmission of HIV is prioritized.

Keywords: Gondar, PMTCT and ART clinic**,** HIV positive mothers, infant feeding practice.

Abstract 29

PREVALENCE OF LISTERIA MONOCYTOGENES IN RETAIL MEAT AND DAIRY PRODUCTS IN ADDIS ABABA AND ITS SURROUNDING TOWNS, *Firehiwot Abera, Msc., Ethiopian Health and Nutrition research Institute, Food science and Nutrition Department, DP Monga, Professor.; Addis Ababa University; Medical Faculty. Abera Geyid, Professor. Institute of Veterinary, Kigaly, Rwanda, Abebe Mache, PhD.,CDC in Ethiopia (at EHNRI). Rene S. Hendriksen, PhD., National Food Institute, Division of Microbiology and Risk Assessment, Denmark. Girum Taye. Institute of Veterinary, Kigaly, Rwanda*

Background: Listeriosis is a disease of humans and animals caused mostly by ingesting of Listeria monocytogenes, from contaminated food, water and/ or through zoontic infections. In the world, this disease is becoming an emerging bacterial disease, with low incidence but high fatality rate.

Objective: To isolate L. monocytogenes from raw meat and diary products (raw milk, cottage cheese, cream cake,) collected from 7 subcities of Addis and nearby small towns. (Butajira, Fitche, Woliso, Ambo and Nazreth)

Methods: Having purchased 240 food samples from food vendors, shops and supermarkets, a cross-sectional study was carried out from July to December 2006. In whil L. monocytogenes was isolated according to the standard procedures using Listeria enrichment broth, Modified Fraser broth, Polymyxin Acriflavine Lithium Chloride Ceftazidime Aesculine Mannitol (PALCAM) and Oxford Agar (OXA) media as well as confirmatory broths like rhamnose, xylose, mannitol; blood agar and Christe Atkins Munch Peterson (CAMP) test. The isolated L.monocytogenes strains then were checked using molecular serotyping.

Result: Out of the 240 food samples tested, 66 (27.5%) were positive for Listeria species. The prevalence rate of L. monocytogenes was found to be 10 (4. 1%). Which 9 of them were serotyped as 4b and only one isolate was 2b.

Conclusion: This finding is in line with the findings other similar researches undertaken in the country that proved the presence of L.monocytogens almost with similar prevalence rate of other human pathogens, like Salmonella. This organism can proliferate especially in immunocompromised individuals and can be fatal if taken with raw meat or milk. Therefore, public education has to be given about the organism's nature and prevention measures similar researches should be done in clinical samples in order to estimate its prevalence and carrier rate in humans. In addition, all

investigations regarding food-borne outbreaks of infection have to include L.monocytogenes since it is capable of spreading rather rapidly throughout the world.

Abstract 30

ORGANIZATIONAL RESPONSES TO SEXUAL AND REPRODUCTIVE HEALTH NEEDS OF STREET CHILDREN IN ADDIS ABABA, _Habtamu Demelash_ , MPH

Background: The lives of millions of street children worldwide are at risk because they do not have the information, skills, health services and support they need to go through a health sexual development during adolescence. It thus becomes necessary to have viable program or strategies that will ensure the sexual health of problems street children. But rigorous assessment has not been undertaken so far to identify whether special and street children-friendly sexual and reproductive health and HIV/ AIDS prevention and treatment are available in Addis Ababa. This study is therefore undertaken to systematically investigate the compatibility between street children's sexual and reproductive health needs and the existing pragmatic responses.

Objective: This study tried to explore to what extent the present health interventions address the sexual and reproductive health needs of street children in Addis Ababa.

Method: A cross-sectional study was conducted involving 422 street children and four service providers using a structured questionnaire, focus group discussions and individual interviews. The study participants were selected using a time location sampling (TLS) technique which included different areas at different time in five sub-cities of Addis Ababa.

Results: At the time of the survey, most participants (72.5%) already had sexual intercourse (66.2% of boys, and 90.4% of girls) and the mean age at their first sexual intercourse were 15.4 years for males and 14.3 years for females. Comparing males and females, 84.3% of males and 85.7% of females tended to have multiple sexual partners. Concerning to substance use, more than two third (67.3%) of the participants used at least one type. A history of drug use (OR = 2.5; 95% CI = 1.42–4.56), and being on the street for the first 1-3 years (OR = 5.9; 95% CI=1.41- 25.22) increased the likelihood of displaying sexual activity. A large proportion (64.9%) of them children did not attend any kind of sexual and reproductive health education. Regarding perceived and actual to getting servicebarriers, limited access to local sexual and reproductive health services, 26.5% of the participants stated lack of information on available services as the biggest ones. From the individual interviews with the coordinators of special clinics for street children, it was indicated that financial and networking problems were affecting the service delivery for children by the different actors.

Conclusion: Street children, who are a special high risk group, have not been targeted and hence continue to remain vulnerable and lacking in sexual and reproductive health

services that cater to their needs and sexual health services are poorly publicized and delivered to them.

Abstract 31

PREVALENCE AND RISK FACTORS OF HEPATITIS C AMONG INDIVIDUALS COMING TO HIV TESTING CENTERS, HAWASSA CITY, SOUTHERN ETHIOPIA,

Addisu Alemayehu, Yayehyirad Tassachew, Zufan Sisay, Techalew Shimelis, Department of Medical Laboratory Science, Hawassa University, Aklilu Lemma Institute of Pathobiology, Addis Ababa University,

Background: The hepatitis C virus (HCV), either alone or in combination with Human Immunodeficiency virus (HIV), constitutes a major public health concern. This study was conducted to describe the prevalence and risk factors for HCV infection in people with and without HIV infection.

Methods: Blood samples and data on socio-demographic and risk factors for HCV infection were collected from consecutive 400 HIV- positive and 400 HIV- negative individuals attending HIV testing centers in Hawassa city, from October to December, 2008. All sera were tested for antibody to HCV infection (anti-HCV) using enzyme linked immunosorbent assay (ELISA). Sera positive for anti-HCV were further tested for viral ribonucleic acid (RNA) levels using real-time polymerase chain reaction.

Results: The rate of anti-HCV positivity was 10.5% in the HIV- infected individuals compared with 6% in the HIV negative group (p = 0.002). HCV-RNA was detected in 9.1% of anti-HCV positive samples and rates were comparable between HIV- infected and HIV- non-infected individuals. There was no significant difference in the odds of HCV infection in participants with and without HCV risk factors in either HIV sero-group.

Conclusion: HIV infected individuals had a significantly higher rate of anti-HCV although most of them showed no evidence of viraemia. Hence, while priority should be given for HIV infected patients, testing those with anti-HCV for HCV-RNA remains important.

Key words: Prevalence, hepatitis C virus, human immunodeficiency virus, co-infection.

Abstract 32

PARENTS' PERCEPTION, STUDENTS' AND TEACHERS' ATTITUDE TOWARD SCHOOL SEX EDUCATION: A CROSS-SECTIONAL STUDY DESIGN OF MERAWI TOWN IN WEST GOJAM, NORTHWEST ETHIOPIA. *Netsanet Fentahun*, MPH., Fentie Ambaw, MA., Tsion Assefa, MPH., Fissehaye Alemseged, MD,MPH.

Background: Schools provide an ideal setting for sex education, as many of the children can be reached there. Effective sex education should be consistent with what parents believes their children to be taught, teachers that teach and students that need to be taught.

Objective: To explore perception of parents about school sex education and assess the attitude of teachers and students about it in Merawi secondary and preparatory schools.

Method: A cross-sectional quantitative survey and qualitative one were conducted on randomly selected 386 students, 94 teachers and 10 parents included for the interviews. Data were collected using a pre-coded Amharic version questionnaire. Total score was computed to represent the attitude of students and teachers on school sex education scale as continuous variables. Using the total score, standard multiple linear regression analysis was performed to determine the effect of explanatory variables on outcome variables. The qualitative data were analyzed by using a thematic approach.

Results: Students, teachers and parents supported the importance of school sex education. Three hundred sixty four (96.8%) students. 93 (98.9%) teachers had positive attitudes towards the importance of school sex education. All parents said that "the importance of school sex education at school is an unquestionable idea. All study participants agreed that school sex education should include abstinence only and abstinence plus based on the psychological maturity of the students. Two hundred forty three (63%) of the students and 62 (66%) of the teachers said that abstinence only should be included at the beginning of school sex education. Almost all students, teachers and parents said that school sex education should start at age of less than or equal to 15 years

Conclusion and recommendation: Almost all students, teachers and parents said that school sex education should start at age of less than or equal to 15years and that it should be given considering the student, teachers' attitude, and parents' perception view regarding starting time. A responsible body should give more emphasis on school sex education to protect the future generations from different health problem.

Abstract 33

ASSESSMENT OF CONTRACEPTIVE USE AND FAMILY SIZE PREFERENCES AMONG CURRENTLY MARRIED WOMEN OF REPRODUCTIVE AGE IN JIMMA ARJO DISTRICT, OROMIA REGION, _Tariku Tesfaye_, B.Sc, MPH

Background: Ethiopia is one of sub-saharan Africa countries in which high fertility (5.4 births per woman) is observed. Family planning programs have always been considered as the interventions of choice for slowing population growth and family size. As recent surveys showed, desired family size is smaller than the actual in almost every country in the developing world and most women who practice contraception do so to space rather than to limit births.

Objectives: Assessing contraceptive use and family size preferences among currently married women of reproductive age in Jimma Arjo district.

Methods: A community-based cross-sectional study design combining both qualitative and quantitative methods was conducted from January to February 2011. A total of five kebeles were selected from 22 kebeles in Jimma Arjo district, Oromia National Regional State, Ethiopia. Four kebeles were selected from 20 rural kebeles and one Kebele was selected from 2 urban kebeles first by the lottery method. Then, 475 households from these kebeles were selected by using systematic random sampling technique and a total of 475 married women were interviewed. Three sessions of FGDs with religious leaders, service providers and married women were also undertaken in the respective kebeles to complement the findings of the quantitative data.

Results: The result indicated at the time 57.1% of married women were using modern contraceptive methods. About half of the respondents had 1-3 children followed by 4-6 children. The average number of children a woman had during the survey excluding current pregnancy was 3.8. The study also indicated that 307 (64.6%) of them wanted to have 4-6 children in their lifetime with an average number of 4.09±1.38 children. About 42% of the women wanted no more children were those using modern contraceptives. In the logistic regression, women in ages (35-49 years) were more than five times more likely than younger women (15-24 years) to limit child bearing (AOR: 5.54 (1.8-17.04), 95% CI) and women who have had at least one child death were less likely to limit childbearing as compared to those who have not experienced any child death (OR 0.45(0.3-0.67)).

Conclusion and Recommendation: The use of long acting and permanent methods of contraception was seen to be very low and women, those who desired to limit child bearing in this study area were lower compared to other studies. As a result, any program aimed at promoting family planning in this area should look for ways and means of reducing the intension of having many children.

Abstract 34

ASSEESSMENT OF MOTHERS'/CARETAKERS MODERN HEALTH CARE SEEKING BEHAVIOR FOR COMMON CHILDHOOD ILLNESSES IN JELDU DISTRICT, WEST SHEWA ZONE OF OROMIA REGIONAL STATE, *Tufa Kolola (Bsc,MPH), Mesfin Addisie (MD,MPH)*

Background: Even though healthcare seeking interventions have the potential to substantially reduce child mortality from easily preventable and treatable diseases in developing countries including Ethiopia, large number of children die without appropriate treatment and before ever reaching the health facility and because delays in seeking care.

Objective: To assess mothers/caretakers modern healthcare seeking behavior for common childhood illnesses and factors affecting it in Jeldu district.

Methods: A community-based cross-sectional study was conducted in Jeldu district of West Shewa Zone, Oromia Regional State, from January 2011 to February 2011. A total of 433 mothers/caretakers with under- five children, who had experienced diseases within six weeks before the survey were selected for this study. The study subjects were allocated to the selected kebeles proportionally to the estimated number of households and data were collected by using structured, pre-tested and interviewer administered questionnaire. The data entry and clearance were carried out using the Epi Info version 3.5.1 statistical software package, whereas SPSS version 16 statistical software package was used for analysis.

Results: A total of 422 mothers/caretakers were enrolled in the study giving an overall response rate of 97.5%. Of the total sick children reported, care was sought from health facilities by 315 (74.6%). Care was sought first from health facilities by only 44%, while 30.6% sought half of health facilities after from other sources. Marital status of the mothers (AOR=2.81; 95%CI: 1.54, 5.13), number of symptoms experienced by the child (AOR=1.98; 95%CI: 1.20, 3.36) and perceived severity of the illness (AOR=3.75; 95%CI: 2.24, 6.28) were identified as independent predictors of health care seeking practices from health facilities. Lack of money (40.2%) and perception that the illness was not serious (27.1%) were the main reasons given for the failure to seek care from health facilities.

Conclusion: Health care seeking practices of mothers/caretakers for common childhood illnesses were delayed (86.3%) and decisions to seek care from health facilities were

widely influenced by worsening of the illnesses (61.0%). Thus, significant effort for obtaining behavioral change should be taken to enhance the health care seeking behavior of the mothers/caretakers of the locality.

Abstract 35

BPR IMPLEMENTATION AND IMPROVED HEALTH SERVICE DELIVERY IN ETHIOPIA: THE CASE OF ADDIS ABABA *Asnake Talargae*, *MA*

Background:

Objective: The objective of this study was to assess the effects of business process reengineering (BPR) implementation on the delivery of quality and effective health service in the Addis Ababa City Administration (AACA). For the past more than three years, the Health Bureau of AACA has been implementing BPR as a change tool at various levels: bureau, sub-city, woreda and health facilities (both hospitals and health center). Attaining customer satisfaction and health service improvements at these levels requires the delivering timely, quality service as well as rendering services with minimum cost. In this study, two hospitals and health centers, the health bureau, sub-cities and woreda officials in the working sector were the people in focus. To examine in the sector customer satisfaction, 40 people found the services in two hospitals and health centers were also the focus group of this study.

Health sector officials filled the questionnaires prepared for the purpose two types of were distributed and collected: one for health officials and the other for department on section. Besides these, focus group discussion with high and low level officials (total number 38) as well as observation were used as another research tool of the study. The findings showed that the effect of BPR implementation are not full–fledged although the exercise has brought about some improvement in the service delivery, but has not achieved customer satisfaction so far. Some of the reasons are attached with human resource management (HRM), others, are related to the capacity of service giving infrastructure (such as budget, input…) and the remaining others still attached to the working system. Based on these facts, the study reached the conclusion that the effects of BPR implementation in the health sector of AACA demands solutions the problems mentioned facts. So, the recommendation of the study calls attention to the motivation of health officials, building the capacity of health institutions as well as continuity of the change tool implementation in the health sector institutions of the city.

Abstract 36

KNOWLEDGE OF THE ABORTION LAW IN THE ERA OF ZERO TOLERANCE TO MATERNAL DEATH: THE CASE OF GONDAR TOWN. *Zelalem Birhanu (MPH- RH), School of Public Health, University of Gondar; Tegbar Yigzaw (MD,MPH), Japhego Ethiopia, Netsanet Worku (DVM,MSC), School of Public Health, University of Gondar.*

Introduction: Experiences from around the world show that restrictive abortion laws lead women to have unsafe abortions, in turn contributing to over one-tenth of maternal deaths in developing countries. Even when safe, legal abortion services are available, women who lack accurate information about the relevant laws may resort to unsafe abortions because they do not know they are eligible for the service or do not know the legal requirements for obtaining an abortion. Research in several countries has found that public knowledge about abortion law is often minimal.

Objective: To assess knowledge about abortion legislation and factors associated with it.

Methods: A community-based cross sectional study was conducted from April 15-25, 2010 among reproductive age women of Gondar town. The study included 806 participants who were selected using a systematic random sampling technique. A structured pretested questionnaire using interviews was used for data collection. The data was entered and analyzed using the SPSS version 13 statistical package. Frequencies, proportions and summary statistics served to describe the study population in relation to the relevant variables. Bivariate and multivariate analyses were carried out to see the effect of each independent variable on the dependent variable.

Result: More than half (59%) of the study subjects did not know that abortion is legal under certain circumstances in Ethiopia. Participants` health club membership (OR=3.04, 95% CI=1.83-5.05), hearing of emergency contraceptives (OR=2.28, 95% CI=1.58-3.29), knowing of someone with induced abortion (OR=1.58, 95%CI 1.08-2.30), secondary and tertiary level education were factors associated with knowing that abortions are legally permissible under certain circumstances in Ethiopia.

Conclusion and Recommendations: Overall, these findings indicated that there was a substantial unmet demand among women for information on the legal provisions for of abortion. Education and public awareness raising activities are needed.

Abstract 37

IMPLANON: A NEW FAMILY PLANNING SCALE-UP INITIATIVE IN ETHIOPIA; ACHIEVEMENTS, CHALLENGES AND PROSPECTS OF THE PROGRAM IN GEDEO ZONE, SNNNPR, *Taddese Alemu & Henoke Taddese*

Background: In Ethiopia there is an acute unmet demand for long-acting family planning methods. It is believed that giving women access to Implanon as long-term method at the community level will help improve the contraceptive prevalence rate and reduce unmet needs, which are both MDG indicators of maternal health.

Objective: To assess the extent of achievements in the scaling up initiatives with the identification of prevailing bottle necks and looking ahead to future prospect of the program.

Method: A cross-sectional qualitative study using both in-depth interviews and focus group discussions was done in Gedeo and nearby woredas of Sidama Zone. The study subjects were purposively selected health extension workers, nurses and women of the reproductive age group who had ever /not used Implanon. Data was collected using a semi-structured interview questionnaire and FGD guidelines and analyzed manually using thematic framework analysis methods.

Result and Discussion: It was learned from the study that Implanon and Jadelle were highly advocated and their use vary promising at the very beginning of the initiative. This was mainly because of the training of a large number of health workers on how to counsel and provide (insert) by contrast only a few nurses were trained on how to remove it for mothers who will not comfortable after insertion. In addition, positive attitude from local political leaders coupled with the strong commitment of health workers to achieve the objectives brought better utilization and awareness in the community. In spite of all challenges including complain about profuse vaginal bleeding following rod insertion, few or lack of removal service in case of discomfort, and rumors about the method in the community are worth mentioning as factors curtailing of the initiative.

As a result, perhaps the number of mothers using the method has declined dramatically and so many mothers are complaining for removal. Furthermore, most of the mothers were seen developing such an unfavorable attitudes about the method that it might lead to decline using other family planning methods at all.

Conclusion and Recommendation: Although the service was highly promising was the service at the very beginning, several challenges are arising that may spoil the attitude of the public towards family planning as a whole. This could mean aggravating the already existing high population density in the nation in general and the Sidama area in particular. Therefore, prompt attention should be given to the implementation of the program by the concerned local, regional as well as federal level authorities soon if we are to curve the threatening consequences of method side effects and poor implementation.

Abstract 38

ASSESSMENT OF LABORATORY LOGISTICS MANAGEMENT INFORMATION SYSTEM (LMIS) PRACTICE FOR HIV/AIDS AND TUBERCULOSIS (TB) LABORATORY COMMODITIES IN SELECTED PUBLIC HEALTH FACILITIES IN ADDIS ABABA, ETHIOPIA, 2011, *Adinew Desale (BSc, MSc, CLS) AAU, Biniyam Taye (BSc, MPH) AAU, Getachew Belay (BSc, MSc) EHNRI, Alemayehu Nigatu (BSc, MSc, MPH) SCMS*

Background: Logistics management information system for health commodities is poorly implemented in most of the developing countries.

Objective: To ascertain the status of laboratory logistics management information system for HIV/AIDS and tuberculosis laboratory commodities in public health facilities in Addis Ababa.

Methods: A cross-sectional descriptive study was undertaken from September 2010-January 2011 at selected public health facilities in Addis Ababa. A stratified random sampling method was used to include a total of 43 facilities which were investigated through quantitative methods using structured questionnaire interviews. Focus group discussion with the designated supply chain managers and key informant interviews were conducted for the qualitative method.

Result: There exists a well-designed logistics system for laboratory commodities with trained pharmacy personnel, standard LMIS formats and established inventory control procedures. However, in majority of laboratory professionals were not trained in LMIS. While most of the facilities (60.5%) had stock out for at least one ART monitoring and TB laboratory reagents and the highest stock out rate was for chemistry reagents.

Conclusion: Even though there exists a well designed laboratory LMIS, keeping quality stock/bin cards and LMIS reports were very low. Key ART monitoring of laboratory commodities were stock out at many facilities at the day of visit and during the preceding six months.

Key words: Logistics management information system, stock outs, laboratory commodities.

Abstract 39

DRUG RESISTANCE PATTERN OF MYCOBACTERIUM TUBERCULOSIS IN EASTERN AMHARA REGION, *Ahmed Esmael (BSc, MSc, CLS), Kassue Desta (BSc, MSc), Ibrahim Ali (BSc, MSc), Mulualem Agonafir (BSc, MSc)*

Background: Tuberculosis (TB) remains a serious public health problem, worsened by the emergence and spread of drug resistant strains.

Objectives: To design the magnitude of drug resistance pattern of *M.tuberculosis*, in the Eastern Amhara Region of Ethiopia.

Methods: A cross-sectional survey was made among new and re-treatment patients (age > 18 year) from September 2010 to February 2011. Primary isolation and DST were carried out on egg-based LJ media using an indirect proportion method. Chi-Square and multivariate logistic regression was used.

Results: Out of 230 study participants for DST, 165 were new cases while 65 were previously treated cases. From these, 66.5% of isolates were sensitive and 4.4% resistant to four first line anti-tuberculosis drugs (HRSE) while the remaining 33.5% were resistant to at least to one drug. Among new cases primary drug resistance for one or more drugs was observed in 23.6 % (39) cases. Primary MDR-TB was found in 3 (1.81%) cases. Similarly among previously treated cases resistance to any drug was found in 58.5 % (38) cases. MDR-TB in previously treated cases was found in 18.46 % (12) cases; the highest being in failure cases, 9.23% (6).

Conclusion: Drug resistance TB particularly MDR-TB is an emerging problem in new and re-treatment patients of our study area.

Key word: Drug resistance, MDR, tuberculosis, eastern Amhara region.

Abstract 40

ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE (KAP) REGARDING TUBERCULOSIS IN EASTERN AMHARA REGION, _Ahmed Esmael (BSc, MSc, CLS), Kassue Desta (BSc, MSc), Ibrahim Ali (BSc, MSc),   Mulualem Agonafir (BSc, MSc)_

Background: KAP survey is essential to plan, implement and evaluate advocacy, communication and social mobilization (ACSM) work.

Objectives: To measure the knowledge, attitude and practice of patients` towards TB in eastern Amhara Region, Ethiopia.

Methods: A cross-sectional survey was conducted among suspected and confirmed TB patients (age > 18 years) from September 2010 to February 2011. A structured and pre-validated questionnaires was used to collect data. Chi-Square and multivariate logistic regression was used.

Result: The mean and median knowledge score of respondents about PTB was 6.81 and 7 respectively. The majority, (53.6%) of study subjects had a poor knowledge score, felt not well informed about TB and had several misconceptions that needed to be clarified. About half of the respondent did not know TB diagnosis and treatment being free at present. Cost (69.9 %) and difficulties in transportation (54.5 %) were mentioned as the main reason for their delay in seeking care.

Conclusion: The majority of respondents had poor knowledge and several misconceptions about TB that needed to be clarified.

Key word: KAP, tuberculosis, eastern Amhara region

Abstract 41

IMPLEMENTATION GAPS OF ABORTION RELATED CARE SERVICES IN ETHIOPIA,

Shirega Minuye, BA., SMAF Green Business Pvt co., Addis Ababa

Background: Ethiopia is one of the countries in the world with the highest maternal mortality ratio as a result of unsafe abortion and other related factors. Problems related to unsafe abortion in Ethiopia are associated with its nature of sensitivity, low access to family planning services, socio-cultural, religion, customary norms and practices. The Millennium Development Goals target reducing maternal mortality by 75% in 2015. In this regard, it is noted unsafe the abortion should be effectively addressed to meet the desired goals. Realizing this fact, the Ethiopian government revised the penal code and committed itself to create an enabling environment that paved the way for increasing access to safe abortion services. Guided by these revised laws and commitments, both government and non-government reproductive health care providers are making efforts for positive action.

Objectives: This attempt to show the implementation gaps of abortion related services by referring the pertinent laws and policies.

Methods: The data for this was gathered systematically from scientific papers, web-sites, direct interviews, observation and experts' opinion. A semi-structured questionnaire, guides and checklists were carefully prepared to capture relevant information. The data was categorized, analyzed and triangulated to identify credible facts.

Results: The findings showed that the limited awareness of women, health care providers, health extension workers, community-based reproductive health agents and communities at large of the revised laws of abortion have been negatively affected the women and girls in accessing the services for fear of stigmatization. The limited knowledge of health providers about the issue deters referral to the right place on time. In addition, most health providers lack skill on abortion and post abortion care. It was also found that some clinicians, who have good technical skills on abortion insisted to be involve in providing of safe abortion services.

Conclusion and Recommendation: There is a slow progress in providing safe abortion and related services though both the government and non-government organizations deploy health extension workers and community-based health agents at the grass-root levels because poor awareness of the abortion law and also the limited technical expertise on abortion care services. Thus, there is a need for specifically tailored

IEC/BCC materials to fill the information gap that and make available awareness and information that on specific regions, culture, and accessibility and the misconceptions related to the abortion law and services. It is also imperative to develop training manuals and provide comprehensive and skill-oriented training for health care providers on safe abortion and post abortion care services.

Abstract 42

THE ROLE OF THE PRIVATE HEALTH SECTOR IN COLLABORATIVE TB/HIV ACTIVITIES IN ETHIOPIA, *Yehualashet Bekele, MD, Tesfai Gabre-Kidan, MD, Semunegus Mehrete, Abt Associates Inc*

Background: One of the key components of the stop TB strategy is scaling up collaborative TB/HIV activities. Private for-profit health facilities in Ethiopia are flourishing and contributing to improved access to healthcare in almost all urban areas of the country. The Private Health Sector Program (PHSP), a USAID-funded program implemented by Abt Associates, is working with the Federal Ministry of Health to scale up DOTS service using a model of public-private mixture (PPM-DOTS). Presently, there are 191 PHSP supported private clinics providing TB/HIV service in five regions and two city administrations of the country.

Learning Objectives: Describe the contribution of the private health sector in national TB/HIV collaborative activities.

Methodology: A quantitative study was conducted with quarterly reported data from 93 PHSP-supported private health facilities between October 2009 and Septembe2010. Simple descriptive and comparative statistical analyses were performed using EPI-Info version 3.3.2.

Result: Over one year period, between October 2009 and December 2010, a total of 13,178 tuberculosis patients were diagnosed in all the 93 clinics. Only 35% (n=3,419) tuberculosis patients were retained in the facilities, the remaining 65% (n=9757) were referred to other clinics. More than 55% (n=1880) of the retained patients were tested for HIV, and 27% (n=509) of those tested were positive and were referred for chronic care.

Conclusion: Based on the resounding success of TB /HIV care in the private facilities, a comprehensive HIV care including ART should be rolled out to the private sector without delay for an integrated and effective service delivery .

Keywords (2): TB/HIV , access to care, private health sector.

Abstract 43

RESEARCHERS' CHALLENGES IN DEVELOPING THE COUNTRY'S UNIVERSITIES: FINDINGS FROM LITERATURE REVIEW AND INTERVIEWs,

Yadeta Dessie (BSc.PH, MPH), Firehiwot Mesfin (BSc, MSc), Yamane Berhane (MD, MPH, PHD)

Background: Universities have the duty of producing and distributing academic publications in order to advance the frontiers of knowledge and address social problems. They are presumed to be prime source of knowledge and innovation at national, regional and international levels. In these institutions, academicians are the active ingredient and are expected to relentlessly pursue truth, asking questions and look beyond conventional wisdom in their field of studies besides of teaching and learning. Despite this established notion, universities' academicians in developing nations are lagging far behind and do not profoundly engage in conducting research and producing publications to the expected level. Existing challenges in this case are the spots need to be assessed.

Objective: To find out what the challenges to researcher in developing country universities are for not engaging stalwartly in researching and publishing.

Methods: Literature review and in-depth interviews were undertaken in order to explore the challenges. The literatures was searched through Google Scholar and interviews were held with senior professors, PhD and MSc degree holders and PhD candidates at Haramaya University. The interviews were tape recorded and thematic analyses were carried out.

Results: Both from the interviews and literature review, two broad types of challenges were identified: the challenges related to individuals, commonly called the active components, and the broader ones referred to as environmental challenges. Lack of team work and senior academicians for mentoring, being deficient in experience and problems of statistical issues were challenges identified at individuals level. Lack of properly designed research related policies and low use of research output at national level are other challenges recurrently emphasized by assistant, associate and full professors and documented in the literatures. Importantly, the lack of funding, time constraint a poor research management system and lack of fertile ground for research in the institutions are the other challenges reported by the majority of the interviewees and the literature. Moreover, the problem of digital

services (internet access) and publishing are other repeatedly reported difficulties defy especially from the side of student interviewees.

Conclusions: Several challenges of different degrees were identified. Most of them could be easily resolved with the resources at hand, if responsible officials and administrators them enough attention due emphasis. We recommend the responsible bodies to give weight to their levels manageable at their level in order to create the habit and infrastructure required for research and publication in higher academic institutions.

Abstract 44

SURVIVAL AND PRIDICTORS OF MORTALITY AMONG ADULTS ON ANTIRETROVIRAL THERAPY INSELECTED PUBLIC HOSPITALS IN HARER, EASTERN ETHIOPIA, *Tesfaye Digaffe, MPH in Epidemiology, Department of Medical Laboratory Sciences,Haramaya University; Berihanu Seyoum, MSc., Department of MedicalLaboratory Sciences, Haramaya University; Lemessa Oljira, MPH.,Department of Public Health, Haramaya University*

Background: There are several predictors of mortality of patients on anti-retroviraltreatment (ART): viral load, CD4 count, total lymphocytes, body mass index (BMI) and adherence to treatment. However, there is no single proven model for delivering ART and this highlights the urgent need for generatingregionally suitable data. A few years back, Ethiopia was planning for alarge-scale ART program.

Objectives: To analyze the survival and predictors of mortality in a cohort of adult HIV patients who were on ART for three years starting from September 11, 2005 in Harer, eastern Ethiopia.

Method: A retrospective study was done among a cohort of people living with HIV/AIDS (PLWHA) on ART in three hospitals in Harer. In this study, 655 PLWHAs (age>14 years) who started ART between September 11, 2005 and September 10, 2008 (accrual period) were included. The data were reviewed for additional two consecutive years. Appropriate survival analytical methods were used. The Kaplan-Meier model was used to estimate the survival probability after ART initiation; and Log rank tests were used to compare survival curves. The cox-proportional Hazards model was used to assess the relationship between baseline variables and mortality and calculate hazard ratios.

Results: Among a total of 655 adult PLWHAs who were naïve to ART, 438 (66.9%) were female and the median age of patients was 33 years. The median follow-up period was 38 months (Inter Quartile Range (IQR) =27-48).During the follow up period, 74 (11.4%) patients decreased. The cohort was followed for 1913 person years of observation. Total mortality rate over the follow up period was 3.9 per 100 person-years. Most of deaths (n=36, 49%) occurred in the first 3 months of ART initiation. Three baseline factors could be independently identified: World Health Organization (WHO) clinical stage III and IV (Hazard Ratio (HR) =2.134;95% CI=1.202-3.791, p=0.01); CD4 counts lower than 50 cells/µl (HR=2.344;95% CI=1.404-3.913, p=0.001); not taking baseline

Cotrimoxazole Prophylaxis Treatment (CPT) (HR=2.463; 95% CI=1.255-4.834, p=0.009).

Conclusions and Recommendations: Despite optimizing ART delivery in Ethiopia, a proportion of early deaths among patients with very advanced stage of the conditions are not likely to be preventable with ART. This may require extensive and detailed in resource poor countries. Thus, a more fundamental issue and the greater challenge is the need for early HIV diagnosis and provision of appropriate longitudinal HIV care prior to ART eligibility.

Abstract 45

EVALUATING OF FACTORS ASSOCIATED WITH INFANT AND YOUNG CHILD FEEDING PRACTICE OF HIV POSITIVE MOTHERS IN SELECTED SNNPR HOSPITALS, *Asteway Mengistie,* MPH

Introduction: Mother-to-child transmission of HIV/AIDS is the largest source of HIV infection in children. About one third of children are infected vertically during breast-feeding. Infant feeding in the context of HIV is complex. HIV positive women are confused about feeding methods and mixed feeding continued to be widespread. However, there is little literature on the practice of HIV positive mothers and counseling message of health workers in Ethiopia.

Objective: The study was to gauge the magnitude and factors associated with infant and young children feeding practice of HIV positive mothers in selected hospitals in Southern Nations Nationalities, and Peoples of Region in 2011.

Methods: An institution-based cross-sectional study was conducted using both quantitative and qualitative methods. A total of 201 HIV positive mothers with children less than two years of age were selected for the study (almost random sampling technique). Health workers working on anti -retroviral therapy and prevention of mother to child transmission clinics were taken for in-depth interviews in Hawassa, Yirgalem and Dilla hospitals, during 2010/2011.

Result: The study recruited over 183 HIV positive mothers making a response rate of 91%. Of that total, 87 (47.5%) had children less than 6 months the among the 87 (47.5%) HIV positive mothers, 56.3% had resorted experience of exclusively breast feeding, 35.6% mixed feeding and 8.1% exclusive replacement feeding. Regarding issues discussed during counseling time by health workers, out of the 183 HIV positive mothers, 78.7% of them received counseling on different feeding options. Most, 96.2% and 76.0%, of mothers received counseling on the advantages and disadvantages of breast feeding, respectively, and 67.8% and71% disadvantages of replacement and mixed feeding, respectively. Mother's, who had antenatal follow up and favorable attitude towards feeding options, were more likely to practice exclusive breast feeding and less likely to practice mixed feeding.

Conclusion and Recommendation: More than half of the mothers practiced exclusive breast feeding and a very small proportion of HIV positive mothers chose replacement feeding, but still a greater than one third of HIV positive mothers practiced mixed

feeding. In general, infant and young child feeding practices observed in this study didn't fulfill WHO recommendations, so that all HIV positive mothers should be provided with adequate information to enable them to select the best feeding option for their babies, and to successfully carry out their infant feeding decisions.

Abstract 46

ASSESSMENT OF MENSTRUAL PERCEPTIONS AND PREPARATION OF RURAL ADOLESCENT GIRLS IN SOUTH EASTERN ZONE OF TIGRAY, ETHIOPIA,
Alemayehu Bayray Kahsay, MPH, Haftu Berhe, MSc in Maternity Nursing

Introduction: Fertility awareness involves knowing about the menstrual cycle and its relationship to reproductive health. In the broader sense, it includes an understanding of attitudes and cultural beliefs as there relate to reproductive functions. This is an important element of quality care in family health care. Early preparation for menstruation also contributes a lot beyond family health program, prevents the psychosocial problems such as lack of confidence and susceptibility to exist in late adolescence, in which there has not been sufficient comprehensive research.

Objective: The aim of this study was to assess menstrual perception and preparations for it by rural adolescent girls in South Eastern Zone of Tigray.

Methods: An institution-based descriptive cross-sectional survey was taken in South Eastern Zone of Tigray. The study populations consisted of adolescent girls in junior/secondary schools selected by simple random sampling in each woreda. A total of 257 students were interviewed using a structured self administered questionnaire. Data was entered in to a computer and analysis was done by using the SPSS statistical software and interpretations made given accordingly.

Result: One hundred eighty (70.04%) of the interviewees were between 14-16 years of age. More than half 166 (64.60%) were Orthodox christians, followed by Muslim. One hundred forty (50.57%) of the girl's parents were government employees by occupation followed by Merchants 68 (26.46%). While with regard to their educational level over a third of them, 101 (39.29%) were able to read and write, 16 (6.23%) were not able to do so. Out of the 257 subjects, 182 (70.80%) reported that they had already started menstruating at the mean menarche age 14 years. Most 189 (73.54%) of them reported that they had obtained information on menstruation, and for 75 (39.70%) of the girls the information was given by their mothers. The first emotional reaction to menstruation by 94 (49.70%) of them was fear, followed by embarrassment. Over a third, 101 (55.49%) reported that menstruation affected their activities of daily living, and in order to overcome this, they take rest. Generally, socio-demographic characteristics are associated with the provision of information to the adolescent (p<0.005).

Conclusion and recommendation: Therefore, it is recommended that the government and the community should work in a coordinated manner to provide adolescent girls with the necessary information about their reproductive health as early as possible and thereby prevent morbidity, and unnecessary fear due to lack of information.

Key words: Adolescence, Menarche.

Abstract 47

ASSESSMENT OF SEXUAL COERCION AMONG PUBLIC HIGH SCHOOL FEMALE STUDENTS IN HARARI REGION, EASTERN ETHIOPIA, _Merema Abdo_ _MPH, Haramaya university; Thomas Syre MPH,PhD, Haramaya university and Gudina Egata, MPH,PhD Candidate Haramaya university_

Objective: Sexual coercion refers to a range of experiences that compel a person to have sex against her or his will. The general objective of this study is to assess the prevalence and factors associated with sexual coercion among public high school female students in the Harari region. A quantitative school-based cross-sectional study supplemented with qualitative inquiry was employed. Three public schools found in the regions were included in the study. Bivraite and multivariate analysis were made in the study.

Among the total 660 school girls who were included in the study, 203 (30.8%) had boyfriends and 94 (14.2%) were already engaged in initiated sexual activity at the time of the survey at the mean age of 16 years old. Lifetime and 12 month prevalence of completed rape were 44 (6.7%) and 33 (5%). Again Lifetime and 12 month of prevalence attempted rapes were 125 (18.9 %) and 77 (11.6%), respectively. Prevalence of sexual harassment in a lifetime and 12 months were 169 (25.6%) and 109 (16.5%), respectively.

In multivariate analysis factors like respondents having boyfriends, their marital status respondent's use of psychologic substances were predictor's of sexual coercion. Living situation factors like living alone, being supported financially by husband and boyfriends, lower average monthly income were also significantly associated with sexual coercion.

From these results, it is concluded that sexual violence is a complex and widespread social and problem on the hidden obstacle to the national economic and social development. As sexual violence against schoolgirls is pervasive, efforts must be made by teachers, female affairs bureaus and regional governments to tackle the problem and promote a harassment-free environment for young girls.

Keyword: Females violence, sexual coercions and harassments.

Abstract 48

ASSESSMENT OF CAR CRASH ACCIDENTS AND SUBSTANCE USE AMONG DRIVERS IN ADDIS ABABA, _Million Hailu,_ MPH., AMSH and UoG Joint Postgraduate Studies Program Coordinator.

Background: Worldwide, the number of people killed in road traffic crashes each year is estimated about 1.2 million, while the number injured could be as high as 50 million. In Ethiopia, above 1,800 people died and over 7,000 individuals were injured in 2003. Out of the total car crash accidents that happened in Ethiopia, Addis Ababa accounted for about 60% of them on average annually.

Objective: To determine the prevalence of car crash accidents and their association with substance use among drivers in Addis Ababa.

Materials and Methods: A cross-sectional survey by using systematic random sampling method was carried out at all Addis Ababa Transport Authority branches from January to February 2011. A pre-tested, structured and self-administered questionnaire was used to collect data from 876 respondents.

Result: A _Khat_ chewing habit among respondents exhibited the highest prevalence both prior to driving (within 8 hours) 13.5% and during driving (8.9%). From the total respondents, 32.0% reported a car crash accident of some type and 2.05% confirmed similar events car crash accident that caused fatal injuries within the preceding 12 months prior to the survey. Most of the victims were pedestrians. Traffic accident issignificantly and positively associated with _khat_ consumption habit both before driving [Adjusted OR (95%CI) = 3.97 (2.58, 6.10)] and while driving [Adjusted OR (95%CI) = 3.38 (2.04, 5.61)]. However, recent alcohol drinking habit was found to be significantly and positively associated with traffic accident [Adjusted OR (95%CI) = 3.26 (1.93, 5.51)].

Conclusions and Recommendations: The _khat_ use among drivers is high and worrisome. This is because, in addition to its association traffic accident; it also reinforces the development of alcohol and other drug use, that exacerbates the frequency occurrence and severity of traffic accidents. Public information and education campaigns on the dangers of driving under the influence of substances, and the social and legal consequences of doing so, should be undertaken and wide accessible. Emphasis should be given to the most vulnerable groups of road users, especially pedestrians.

Abstract 49

SEROPREVALENCE OF HBV AND POTENTIAL RISK FACTORS AMONG HEALTH PROFESSIONALS IN PUBLIC HOSPITALS OF ADDIS ABABA, EHIOPIA. <u>*Zelalem Dessalegn*</u> *,MSc.,Department of Microbiology, Immunology and Parasitology, School of Medicine, Adddis Ababa University; Dr.Solomon G/selassie,MD, MSc, Associate professor., Department of Microbiology, Immunology and Parasitology, School of Medicine, Adddis Ababa University*

Background: Hepatitis B virus (HBV) remains a major global health problem. More than three-quarters of HBV infections occur in Asia, the Middle East and Africa. Healthcare workers (HCWs) are at risk of acquiring hepatitis B (HBV), hepatitis C (HCV) and human immunodeficiency virus (HIV) infections via exposure to patients' blood and body fluids. Hepatitis B virus infection is a recognized occupational hazard as non-immune health professionals stand at risk of getting infected from their work.

Objectives: The study aimed at investigating the distribution of HBV and associated risk factors among health professionals in the public hospitals of Addis Ababa.

Methods: Data were obtained from a cross sectional survey conducted in St. Paul's and Zewditu hospitals in Addis Ababa among health professionals, from November 2010 to January 2011. A single population proportion formula was used and the sample size was 257. A convenient sampling method was employed to get the required sample size. A written consent was obtained from the study participants. A structured questionnaire was used to collect data on socio-demographic characteristics and risk factors. A 5 ml blood was collected, centrifuged and the serum analyzed for HBsAg using Instant HBsAg kit. Strengths of association were measured using OR and $P<=0.05$ taken as statistically significant association. Descriptive and logistic regression models were used for analysis.

Results: Among the 254 participants, the sero-prevalence of current hepatitis B virus infection was 2.4%. The majority of the study subjects, numbering in 184 (72.4%) and 153 (60.2%) of them were exposed to blood for ungloved hands and for other body fluid, respectively. Prevalence of sustained needle stick injuries (NSIs) and sharp injury was 155 (61.2%) and 127 (50%), respectively. Consistent use of gloves was reported by 52.4% of respondents. Only 9 (3.5%) of respondents were vaccinated against hepatitis B virus. HCWs, who had no knowledge about universal precaution guidelines, were more likely to have been exposed to hepatitis B virus infection (AOR=7.96; 95% CI: 1.295-48.966; P= 0.025).

Conclusion and Recommendation: Exposure to potentially infectious body fluids, NSI and sharp injury and other risk factors was found to be high in this study. Yet only very small percentages of health professionals were vaccinated. Therefore, health professionals should be vaccinated at the time of entry into service and universal precaution should be emphasized for preventing the occupational risk of HBV among health professionals.

Abstract 50

EPIDEMIOLOGICAL ANALYSIS OF HIV AND AIDS STATUS, RISK OF AQUISITION AND ITS TRENDS, THE CASE OF A PASORALIST COMMUNITY, AFAR REGION, ETHIOPIA. *Abdo Bedru, MPH, College of Health Science, Haramaya University, Yadeta Dessie,MPH, College of Health Science, Haramaya University, Alemayehu Worku, PhD, school of Public Health Addis Ababa university.*

Introduction: AIDS is an extraordinary social of crisis: it is both a health emergency and a long-term development Issue. Pastoralists constitute about 10% of the Ethiopian population. However, there has not been an appropriate health service delivery package appropriate to the context of the pastoralists' life style and demand. There is now compelling evidence that the trend in HIV and AIDS infection will have a profound impact on the future rates of infant, child and maternal mortality, and life expectancy. This will be a disturbing among the Afar development affecting marginalized and disadvantaged communities like pastoralists.

Objective: The objective of this study was to analyze the HIV and AIDS status and its trends among Pastoralists in the Afar region

Methods: A nested qualitative study guided by a semi-structured pretested interview guide was used to explore the HIV and AIDS status. Health workers, religious and clan leaders and traditional birth attendants were interviewed. Focus group discussions were conducted with the youth to get more insight about the situation. The open code approach was used to analyze the qualitative information.

Results: The pastoralists in many high prevalence countries are especially vulnerable to HIV and AIDS. According to this study the various factors that cause or exacerbate the transmission of the virus among pastoralists include: the high availability of commercial sex workers along the main road to Djibouti, their mobility search of grass and water for their livestock, the practice of culturally deep rooted polygamous and enforced marriage arrangements ("Absuma"), little knowledge and misperception about HIV and AIDS, very limited access to health services and these low utilization, high practice of female genital mutilation, the low social status given to women, and lack of contextualized and need based health service delivery in relation to their life style, religion, cultural norms, traditions, sexual habits and beliefs.

HIV and AIDS have a cyclic comprehended affecting pastoralists. Men tend to have casual sex while they are in towns for business. Besides, men have the power of decision making when it comes to women's reproductive health. With very limited reproductive

health rights, women's susceptibility to the HIV virus is high among pastoralist communities. The inadequacy of youth-friendly services (such as VCT), high practice of early marriage, low PMTCT and HIV and AIDS care and support service affect pastoralists. One of the interviewed young Afari girls stated..... "Though we are considered as an important change agent, we receive little attention and felt neglected. In relation to condom use, I never advise anyone to use it as it contains the virus I advise them to use plastic bags (locally called "Festal" as a means of protecting themselves from HIV, which I am practicing myself the cumulative HIV and AIDS prevalence among the Afar pastoralists was 2.35% while compared to 3.08% at the national level. It is therefore evident that HIV and AIDS threaten the life of pastoralists at every step of their life.

Conclusions and Recommendations: From this study, it can be concluded that there should be a comprehensive approach towards reducing HIV/AIDS transmission and vulnerability. Unless services are contextualized, results will be less effective or very minimal. It is also important to build life skills of the youth and encourage them to get involved in important decision making. While fighting harmful traditional practices, raising public awareness at the grass-root level and the use of the rich culture of "Dagu" (the Afar's traditional communication network) are crucial to combat the incidence of the virus.

Abstract 51

EPIDEMIOLOGICAL DATA COLLECTION USING MHEALTH (MOBILE HEALTH) APPLICATIONS IN TIGRAY, ETHIOPIA: LESSONS LEARNED, *Araya Abrha*, *MPH, PhD fellow, Mark Spigt, PhD, Dinant GeertJan, PhD, Alex Little, BSc, Roman Blanco, PhD*

Introduction: The recent introduction of mobile phones that utilize different open source operating systems, and which include (among other features) both the global positioning system (GPS) and Google Maps, provide new opportunities for two-way communication between field workers, their project databases and more skilled professionals in health centers and hospitals. Mobile health or mHealth broadly encompasses health related uses of mobile telecommunication and multimedia technologies within health service delivery and public health systems. Despite the mounting interest in this emerging field particularly as it pertains to least and middle income countries, in-depth examination and synthesis of what works and does not work or the evidence base for mHealth has yet to be rigorously assessed and established. Absence of such information hampers efforts to capitalize on expanding telecommunications networks and successful mHealth pilot projects.

Objectives: To identify challenges and opportunities in using mHealth (cell phone based) applications for epidemiological data collection in Tigray, Ethiopia.

Methods: We did a thorough review and comparison of available applications for mobile data collection. We reviewed both open source and commercial applications. We chose EpiSurveyor for different reasons. Epi-surveyor.org is a web-based system which is useful to create a survey online, fill out the survey on phone, upload data from phone, view data online, export data to text, mdb..., analysis data on phone and more. All the data collected (record) can be saved in the memory of the mobile phone and backed up to a remote server, where it can be analyzed later. To conduct a survey using mobile phones, a structured questionnaire was prepared by reviewing relevant literature to assess the availability of facilities at health posts and competencies of health extension workers. The final questionnaire was designed on http://www.episurveyor.org and downloaded to mobile phones. We tested Symbian and Android smart phones using Nokia E71 and HTC Dream/Hero mobile apparatuses.

Our study was taken in three districts found in Tigray region between September – November, 2010. A total of 50 health extensions workers (HEW) working in 39 health posts and 14 health extension workers and supervisors were interviewed using mobile phones. The interviews with HEWs and their supervisors were done at their working places; health posts and health centres, respectively. All functional health posts found in

the three districts, except those which didn't have access for transportation were included in our survey.

Results: Almost half of the kebeles included in the survey had mobile network (GPRS) coverage. Data collected from these kebeles were uploaded to a server automatically. When general radio packet service (GPRS) coverage was not available in a kebele, recorded data was stored on the memory of the cell phone and later on sent to a remote server when data collector reaches an area with a network coverage. Only 5 of the kebeles had electricity, but we were able to charge mobile phones using solar panel. Using MHealth applications for data collection avoids duplication of questionnaires, avoids data entry by data and shortens the time and reduces the cost of the survey. It improves the data quality as well. The ability of the application to scan GPS location enhances the feeling of accountability and responsibility in data collectors. A major challenge identified was that we could not find Health application which was compatible with the local language. The questionnaire downloaded to mobile phones was in English. Data collectors had to translate questions into the local language, Tigrigna, while asking the respondents.

Conclusion: We found that epidemiological data collection using MHealth applications is feasible in the study area. It has more advantages compared to the traditional paper-based. The next step is to test using MHealth applications by front line health workers such as health extension workers, to improve the effectiveness of service provision and monitoring of services. These applications need to be tested for the purposes of better medical and epidemiological data collection and control by frontline health workers. Moreover, by only collecting valid medical data, one does not improve the local health situation. To achieve that, these applications should be tested suitability for information sharing between health professionals such as the HEWs, HEW supervisors and midwives so that, for example, immediate referrals can be organized to health centers or hospitals.

Abstract 52

ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE OF PATIENT MEDICATION COUNSELING AMONG DRUG DISPENSERS IN THREE SELECTED TOWNS OF JIMMA ZONE, OROMIA REGION, SOUTHWEST ETHIOPIA, *Mohammed Abafita* (B.Pharm), *Seid Mussa Ahmed* (B.Pharm, MSc.)

Background: Providing counseling to patients regarding their medication is a better means to improve patients' compliance. The way drugs are dispensed and the type of information delivered during dispensing strictly determines the way drugs are utilized by patients and affect the expected outcome. Thereof, clear and complete instructions on how to take or use drugs, risks and benefits of using medicines, adverse affects, when and how to use drugs are at least the vital drug information that should be delivered to patients by dispensers.

Objective: To assess knowledge, attitude and practice of patient medication counseling among drug dispensers working in private and public health facilities and drug dispensing units in Agaro, Limmu Genet and Sekoru towns of Jima zones.

Methods: Through a cross sectional study data on the knowledge, attitude and practice of Patient medication counseling among drug dispensers in Agaro, Limmu Genet and Sekoru towns of Jima zones was conducted from in January 20-25, 2011. A semi-structured self-administered questionnaire was used for collecting data. All drug dispensers (50 of them) working in the 24 private and public drug dispensing units in the three towns were included in the study. The towns were selected purposefully because they are the three bigger district towns in the zone.

Results: All the respondents claimed that they knew about patient medication counseling and its role in rational drug use, 47(94%) of the dispensers responded that they updated their knowledge about drugs while 22 (44%) of them had an attitude that professional pharmacy dispensers should counsel the patient and 20 (40%) of dispensers said that it is a shared responsibility between prescribers and dispensers. 43 (86%) of the dispensers reported to carry out the counseling activities by themselves while 5 (10%) responded that the counseling activities were done by their assistants. The route of administration (94%), frequency (94%), dose (77%) and duration of therapy (86%) were the most frequently, delivered drug information to the patients by dispensers. Lack of time due to high patient load 37 (77%) was the main contributing factors that prohibited dispensers from counseling their patients.

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Conclusion and Recommendation: Some of the dispensers believed that patient medication counseling (PMC) was their responsibility and almost the same number of respondents believed that it is a shared responsibility of prescribers and dispensers. Almost all dispensers said they updated their knowledge on the existing and new drugs. Route of administration, frequency dose and duration of the drug treatment were information given by dispensers always. Lack of time due to high patient load was the major reason that prohibited the dispensers from giving PMC. Further training and value needs to be placed on dispensers regardless of graduation date to further emphasize the benefits of PMC for better good of healthcare. In drug retail outlets, there should be special room and personnel for patient medication counseling. Moreover, pharmacy manpower that matches patient load should be institute in the dispensaries.

Key words: Patient medication counseling, dispensers, drug retail outlets, over the counter drug, health facility, Jima zone.

Abstract 53

KHAT CHEWING AND SEXUAL INITIATION AMONG IN-SCHOOL ADOLESCENTS IN EASTERN ETHIOPIA: A CASE-CONTROL STUDY, _Ayalu A. Reda_, _BSPH, MPhil, Thomas R. Syre, MPH, PhD, Asmamaw Moges, BSPH, MPH_

Background: Substance abuse is commonly associated with risky behaviors. Khat (_Catha edulis_) is a psychoactive leaf consumed by adolescents in Ethiopia and neighboring countries. There are, however, few studies that have investigated the relationship between khat chewing and sexual initiation. The aim of this study was to find out about the association between khat chewing and sexual initation.

Methods: A case-control study including 85 cases that had their first sexual intercourse and 340 controls who did not were drawn from in-school adolescents in eastern Ethiopia. Data were collected on khat chewing and other predictors of sexual debut. Descriptive statistics and multivariate logistic regression were employed to assess the association between sexual debut, khat consumption and other predictors.

Results: The findings indicated a strong relationship between khat chewing and sexual initiation among in-school adolescents: Adolescents, who chewed khat, had significantly higher odds of sexual initiation (adjusted OR 3.84; 95% CI 1.82 – 8.12). Alcohol drinking (OR 4.32; 95% CI 1.92 – 9.75) and smoking cigarettes (OR 2.99; 95% CI 1.39 – 6.41) were also significantly associated with sexual debut.

Conclusion: Khat chewing is significantly and independently associated with sexual initiation among in-school adolescents. In addition, alcohol drinking and smoking were also predictors of sexual debut. Hence, school personnel and health authorities need to work toward stemming the use of these substances.

Abstract 54

PREVALENCE OF COMMON PATHOGENIC FUNGAL AGENTS IN SMEAR NEGATIVE PULMONARY TUBERCULOSIS REGISTERED PATIENTS AT SELECTED HEALTH FACILITIES OF ADDIS ABABA, 2011. A CROSS SECTIONAL LABORATORY-BASED STUDY, _Teklil Biza ,BSc, Ethiopian Health & Nutrition Research Institute(EHNRI);Kassu Desta ,Msc ,School of Medical Laboratory Science, AAU ;Mulualem Agonafir , Msc, EHNRI; Nega Asmene, BSc,EHNRI; Eshetu Lemma, PhD, EHNRI ; Endris Mohammed ,MSc, EHNRI_

Objectives: To determine the prevalence of fungi in smears taken from negative pulmonary TB patients.

Material and Methods: A cross -sectional study was made from November 2010 to May 2011 in which total of 229 smear negative pulmonary diagnosed patients from selected health facilities of Addis Ababa were considered and sputum samples collected from all of them. Fungal agents were detected using microscopic and culture techniques. The findings of the study were analyzed using descriptive statistic to determine prevalence of fungal agents, Moreover, Fisher exact and Chi-square tests were used to see association of fungal agents and clinical features, the magnitudes of associations were then measured by Binary regression analysis.

Result: Our study has indicated that there were no statistically associated fungal agents identified in culture with no major clinical manifestation observed in pulmonary tuberculosis. Similarly, chest x-ray features were not statistically associated. From the total study participants, 120 (52.4%) of them had fungal infection and only 31 (13.5%) of them were positive for _Mycobacterium_ species by the culture method. Among the isolates _Aspergillus_ species were the dominate fungal agents and accounted 36 (30%), followed by the _Candida_ species which accounted for 31 (25.8%). Double infection of fungal agents had been seen in 14 study participants. Out of culture positive TB study participants, 18 (58.1%) of them had fungal co infection.

 Conclusion and Recommendation: From the cases study, fungus was the most frequent infection identified in more than 50%, of cases whereas _Mycobacterium_ species was identified only in 13.5% of the study participants registered as smear negative pulmonary TB. Therefore, based on the findings of this study, we recommend applying multiple conventional culture techniques for diagnose of fungal agents before patients are registered as smear negative pulmonary TB. It can help identify the true etiological agents of the disease thereby improving the diagnosis and treatment.

Abstract 55

"ASSESSMENT OF THE USE OF SOCIALLY ACCEPTED PSYCHOACTIVE SUBSTANCES (TOBACCO, KHAT AND ALCOHOL) IN JIMMA UNIVERSITY COLLEGE OF AGRICULTURE AND VETERINARY MEDICINE STUDENTS SOUTH WEST ETHIOPIA", _Tariku Sori Lencho_, BSc

Introduction: A social drug simply refers to a drug that is socially accepted and is usually consumed or taken in social events such as parities and dance clubs. An alcohol, tobacco, khat and cannabis are the common ones. Social drugs can damage a person's health if taken in excess. The use of social drug is widely abused in Jima town in general and in Jima university students in particular. Habitual use of khat renders causes influence on the physical, psychological and economic wellbeing of the community. Their habitual use prevents individuals from realizing their full potential and, hence, become a burden to their families and to the nation and social development. The study indicated that all the respondents had some knowledge about the use of social drugs that create dependency. Khat, alcohol and tobacco were the most commonly used drugs in the college. Hard drugs such as cocaine and heroin were not known by most of the respondent except by those brokers and smugglers of Jima Town. The use of hashish (cannabis) was shown to be on the increase in the collage as well. In this study, though cultural factors account for the use of social drugs in khat producing areas (Jima and its surrounding kebeles), other factors such as unemployment in the city, fun seeking behavior, peer pressure from fellow college student and lack of awareness of the danger of the substance, and lack of other recreational choices were the main reasons cited for the use of social drugs.

Objectives: The ultimate objective of this study was to ascertain the use of social drugs and associated risk factors among students in Jima University College of Agriculture & Veterinary Medicine

Methods: A cross-sectional survey on 600 Jima University College of Agriculture and Veterinary Medicine students was undertaken with a representative sample size from a two stage sampling technique. The students in the college were stratified into fresh and senior students (more than a year) by using a systematic random sampling method through a self-administered structured questionnaire filled anonymously students from randomly selected batches in JUCAVM, in Jima town, southwest Ethiopia, From January to March 2011.

Results: The rate of first time smokers, khat chewers and alcohol drinkers among freshman women students was 12.4% more prevalent among males (43.5%) than

females (12.6%) whereas for senior students it was 65.6% and also more prevalent among males (76%) than females (26%).The current prevalence of chewing chat was 60.4% and general regular social drug use was 35%. More males (45.0%) than females, more Muslims (65.0%) than other religious-groups, Tigrians (42.9%), Oromo (46 %), SNNPR (35%), Addis Ababa (25%), Amhara (27%). Among the different facilities, veterinary students (36%), horticulture (23%), animal science (27%), NRM students (21%), agricultural economics (19%) senior students (65.8%) than fresh ones (23.5%) were found to be both khat chewers and alcohol drinkers only. About 60.8% of the khat chewers had exposure to smoking cigarettes and drinking alcohol and about 54.3% of them missed their classes the next day morning class because of the chewing and drinking and 65.5% of the chewers consumed alcohol and had unsafe sex Being male ($x2=6.01$, $P=0.0268$) and Muslim ($x2=16.839$, $P=0.0005$) were significantly associated with khat chewing, smoking and alcohol consumption The Kaplan-Meier analysis method was applied for comparison of the use of social drug by freshman students and senior students. The average estimated use of social drugs in freshman woman students and senior ones were 60% (95% CI=17.85-16.83).

Conclusion: The use of social drugs (tobacco, khat and alcohol) pattern is directly related to being the college student and associated fun seeking behavior, peer pressure and lack of awareness of the danger of social drugs, and lack of other recreational options were the main factors that predisposed the students to the use of social drugs in the college. It also expose them to unsafe sexual activities with sex workers and some students with their collage mates.

Recommendation: Increasing the awareness about the danger of social drugs, providing alternative recreational activities and imposing regulations on the sale of tobacco, khat, and alcohol near the college gate and in the city, legislation enforcement to reduce the availability, accessibility and affordability of these products are very important to deal with the problem. Moreover building norms and "social drug" free clubs in the college is necessary.

Abstract 56

QUALITY ASSESSMENT OF TUBERCULOSIS LABORATORY DIAGNOSIS IN SELECTED HEALTH FACILITIES OF PUBLIC AND PRIVATE LABORATORIES IN OROMIA REGIONAL STATE, ETHIOPIA, _Desalegn Ararso_, B.Sc, MPH, Ababi Zergaw, PHD

Introduction: In the new millennium, the quality of TB laboratory diagnosis in both public and private health facilities has been taken as a direct reflection of the success of TB control programs and a key component of the DOTS strategy, and yet it has been one of the most neglected components of this program.

Methods: A cross-sectional survey design was conducted out in sixty randomly selected public and private TB laboratories in Oromia region, Ethiopia. Health care quality parameters of the Donabedian model was used to assess the structure, process and output of quality parameters.

Results: The study showed that staff training was a neglected topic in 45 (75%) private TB laboratories, 2 (10%) discordant rate of AFB result, 145 (38%) higher proportions of patients visited the TB laboratories were dissatisfied with lack of respect from the providers. Statistically significant association was observed between structure and process quality (OR =2.9(1.46-5.7; P=0.01) and between process and output quality parameters (OR=3.2(3.13-10; P=0.02)

 Conclusion and Recommendation: Poor laboratory technicians training, high false, negative discordant rate of AFB results. So, laboratory staff training and displaying and follow smear preparation and sticking to the national TB laboratory manuals were strongly recommended.

Abstract 57

SOCIO-CULTURAL BARRIERS OF MATERNAL HEALTH SERVICE UTILIZATION AMONG ETHIOPIAN WOMEN: A REVIEW OF LITERATURE, *Abebaw Gebeyehu (MPH), School of Public Health, University of Gondar; Tegbar Yigzaw(MD, MPH), Jhpiego Ethiopia; Hannah Gibson(MSc), Jhpiego Ethiopia*

Background: Maternal mortality in Ethiopia remains a daunting and largely unmet public health challenge. Most of the maternal deaths can be reduced if women are cared for by skilled birth attendants. However, maternal health service utilization in Ethiopia is unacceptably very low. Understanding the role of socio-cultural barriers plays an important function in a country with great ethnic and geographic diversity.

Objective: The principal objective of this paper is to review the literature on socio-cultural barriers of maternal health service utilization in Ethiopia and identify research gaps.

Methods: This review was conducted by collecting published and unpublished literature. We searched HINARI, Pubmed, Ethiopian Journal of Health Development, Ethiopian Journal of Reproductive Health, as well as Google for additional resources on the internet. We also searched MPH thesis from libraries of Addis Ababa, Jima and Gondar universities. This was supplemented by additional hand-searching for relevant reports, books and conference proceedings. A two-stage process was followed to select articles for the literature review. First, relevant papers were identified by reading the abstracts and superficial scanning of the document. Secondly, a detailed analysis of the quality of each document was performed by using criteria for critical appraisal suggested by the Trent Focus Group. Finally the findings of the literature review were synthesized thematically.

Results: A number of socio-cultural issues affecting maternal health services utilization were identified in this review. There are two dominant mainstream religions in Ethiopia – Orthodox Christianity and Islam. Reviewed literature indicated that many of the traditional practices related to pregnancy and birth have evolved from a mixture of these religious views and the culture of the different ethnic groups (folk religion). Because of this, different studies indicated similarities in various aspects of influences from socio-cultural factors. Many studies showed that women do not receive or delay in seeking maternal health services because of their perceptions and beliefs. Pregnancy is

considered a natural process and the fate of a pregnant woman and her baby is determined by God. Women and their families perceive that pregnancy and child birth are low risk and home delivery is the tradition. Negative perceptions about health facilities and providers present another barrier for maternal health services utilization. Women perceive Traditional Birth Attendants (TBAs) and relatives as more culturally appropriate. There was a perception that illness was associated with super natural causes as a punishment from God or was the anger of spirits. Use of prayers and traditional healers is often the first option for maternal health problems. Ethiopian society is male-dominated and women have limited autonomy. Hence, women need their husband's approval to use health services. However, there was limited evidence about perceptions and beliefs on the cause, symptoms and outcomes of specific maternal complications, cultural sensitivity of health care providers, whether language is a barrier, the different types of traditional practices and their effect on the health of the mother and her baby.

Conclusion: In general the literature review revealed that socio-cultural factors were the barriers to using maternal health services in Ethiopia. Providing culturally appropriate maternal healthcare services and further examination of the research gaps is recommended.

Abstract 58

ASSESSMENT OF NOISE EXPOSURE AND RELATED HEALTH EFFETS AMONG MUSIC SHOP WORKERS IN JIMA TOWN, SOUTHWETERN ETHIOPIA, *Amana Jemal, Dawit Derese*

Introduction: Noise is a real and dangerous form of environmental pollution since people cannot adapt to it physiological. Noise can keep our senses "on edge" and prevent us from relaxing. Noise can adversely affect human beings physiologically as well as psychologically. It is an insidious form of environmental pollutant. The damage is usually long range and permanent. And yet it is certainly the pollutant with the least public concern and (except for radioactivity) the least understood.

Objective: Sizing up the noise exposure, and related health effects of specially among music shop workers.

Methods: A cross-sectional study was made to assessment the noise level and related health effects of music shops in Jima town from May 01 to 15, 2011. All 35 music shop workers included from 30 music registered ships in Jima city municipality after having their obtained was obtained. Data was gathered using structured questionnaire through face to face interview, sound level and blood pressure measurement. The data was analyzed for different variables by SPSS version 16. The results were presented using tables and figures.

Results: Almost all the music shops were located in the commercial zone and 12 (34.3%) were attached to other buildings and 23 (65.7%) were detached or separate. The mean age of the study participants was 25.1 years with range of 17 to 40 years. The majority (65.7%) of the workers were male. The mean ± S.D of educational attainment was grade 11±3. Most of them (42.9%) were owners of the music shops. Most (62.85%) of the study participants were working greater than eight hours per day. All workers reported that they did not have any personal protective devices (PPD). History of an auditory problem was reported by 17.1%, while 8.6% reported a history of hearing impairment and 68.6% complained ringing in the ears. There was significant difference in the type of amplifier in use (P-value <0.05). The study revealed that the mean ±SD sound level recorded inside and outside the music shops were 82.1 ± 9.8 dB and 95.5 ± 9.0 dB, respectively. The mean systolic blood pressure and diastolic blood pressure measured before work were 109.5 mmHg and 72.25 mmHg respectively. The mean

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systolic and diastolic blood pressure measured during work were 114.5 mmHg and 77.5 mmHg, respectively.

Conclusion: Based on the study findings, noise is an occupational health hazard in music shops; therefore, workers should use personal ear protector devices such as properly fitted and sized ear plugs, ear muffs and the like, attention should be given in identifying the type of amplifier in use during licensing of the music shops and noise reduction both inside and outside the music shops to an acceptable level. In addition, further study on the health condition of the people especially working or living nearby music shops which were not included in this study should be studied.

Key wards: Occupational health, blood pressure, noise, amplifier, sphygmomanometer, precision sound level, music shops.

Abstract 59

ASSESSMENT OF FACTORS INFLUENCING INSTITUTIONAL DELIVERY IN AWASH FENTALE WOREDA*, Getachew Weldeyohannes, MPH, Joint MPH program university of Gondar and Addis-continental Institute of Public Health.*

Statement of the problem: Every day, at least 1600 women die worldwide from the complications of pregnancy and child birth, 90% of which occurring in Asia and Sub-Saharan Africa. In Ethiopia, of maternal and infant mortality and morbidity levels are among the highest in the world, in which 673 maternal deaths occur per 100,000 live births. Hence, it became important to conduct my study in Awash Fentale Woreda owing to the insufficient research papers depicting factors influencing institutional delivery in the woreda.

Main objective: To assess the factors affecting institutional delivery in Awash Fentale Woreda, Gibea Zone, Afar National Regional State, Ethiopia.

Methods: Case control study using quantitative and qualitative methods.The study was conducted in Awash Fentale Woreda, Gibea Zone, Afar National Regional State, Ethiopia. The sample size was determined using EPI-INFO version 6, hence, a total of 165 study subjects have been selected for the study, out of which 133 of them were controls and 32 of them were cases. The quantitative data was being cleaned and analyzed using statistical soft wares such as SPSS computer programs and the qualitative data was recorded and analyzed.

Results: The Multivariate analysis showed that age category of women 15-19 and 20-34 are significantly associated with place of delivery with (Adjusted OR=0.062, 95%CI=0.007-0.575) and (Adjusted OR=0.050, 95%CI=0.007-0.338) respectively.
The qualitative study has also showed that mothers used to deliver at home because they don't want to be attended by male health personnel. Position preference was among the other reasons that forced women to deliver at home.

Conclusion: this study demonstrated that socio-demographic factor like age determines whether mothers are more likely to deliver at home or in health facility. Moreover; it was learnt from the qualitative study that the traditional birth attendant plays a pivotal role in deciding about the preference of delivery site in Awash Fentale Woreda.

Recommendation: Those mothers whose age ranged between15-34 should be one of the priority criteria for targeting education on the benefits of safe mother hood program. Training should also be given for female skilled delivery attendants.

Abstract 60

OCCUPATION INDUCED HEALTH PROBLEMS IN FLORICULTURE WORKERS IN WEST SHEWA, OROMIA, ETHIOPIA, *Atkure Defar Deghebo,* MPH

Background: At present, floriculture is a booming sector in Ethiopia; nevertheless, there is a serious issue that raises questions when it to comes the health of the workers. As a result, an effort has been made to outline the outstanding health problems that are manifested in some of the floriculture industry.

Objectives: To assess the health problems encountered in the farm, prevalence of and determinant factors and workers perception towards hazards and hazard prevention in the workplace.

Methods: A cross-sectional study was carried out among floriculture workers in Sebeta Town and surrounding areas from December 01, 2010 to February 30, 2011. A sample of 612 workers was selected from the farms roster by means of a systematic sampling technique. Data were collected through pre-tested structured questionnaire, key informant interviews and working with an environmental check list also used to assess the working condition. Then, content analysis was used for the qualitative data. Quantitative data were entered by using EPI Info. Logistic regression analysis was done using SPSS statistical package for univariate and multivariate analysis to determine the determinant factors to see significance at P -value of less than 0.05 ($P<0.05$).

Results: The majority, 74.9%, of the workers were female, there was no difference in the manifestation of health symptoms amongst the different sections of the farm, with 93% of the study subjects showing at least one health symptom in the last 12 month, 67.8% had at least one skin problem and 81.1% had at least one respiratory health symptom during the preceding 12 months. The highly prevalent ill health symptoms were fatigue (76.5%), followed by headaches (73.4%) and sleepiness (63.5%). A *3.16 (95%: CI 1.28-7.80)* odds of having symptoms of disease was observed after adjusting for confounders among those who did not have full personal protective equipment. There was also *4.93 (95% CI 1.44-16.91)* times odds of symptoms of disease amongst workers who did not use personal protective equipment properly, and odds of reported symptoms of disease were *2.75 (95% CI 1.15- 6.61)* higher on those who had no pre-employment safety training. Although the majority of respondents were aware of hazard causing risks at the farms, they did nothing to prevent any eventuality thereof.

Conclusion and Recommendation: Interventions to prevent occupational health problems were generally neglected, with only 345 (59.3%) of the employees reporting having and (62.39%) properly using personal protective devices. In view of this,

adequate supply of personal protective equipment, pre-employment safety training and use of an integrated pest management are highly recommended.

Abstract 61

REPRODUCTIVE INTENTIONS AND REPRODUCTIVE HEALTHCARE NEEDS OF MEN AND WOMEN LIVING WITH HIV/AIDS IN NEKEMTE TOWN, EAST WOLEGA, ETHIOPIA, *Tesfaye Regassa, MPH., Faculty of Health Sciences, Wolega University; Mesganaw Fantahun, Professor, School of Public Health, Addis Ababa University, Addis Ababa*

Introduction: Understanding fertility desire and reproductive healthcare needs of HIV positive men and women in the era of better access to antiretroviral therapy and improved health status is important in planning and organizing appropriate health services.

Objective: Evaluate the fertility intentions and the reproductive healthcare needs of men and women living with HIV/AIDS in Nekemte town, East Wollega, Ethiopia.

Methods: A facility-based comparative cross-sectional study was carried out among men and women living with HIV/AIDS from February to March 2010 on total sample of 592 in Nekemte town using structured questionnaires consecutively complemented by in-depth interviews.

Results: About 36% of the respondents desired children with men having a higher than women (40.5% versus 30.7%). Being male (AOR: 1.706), 18-29 years old (AOR: 3.49), 30-39 years old (AOR: 2.975), having no living child (AOR: 13.140), having 1-2 living children (AOR: 4.157), having a partner desiring a child (AOR: 15.402), CD_4 count ≥ 200 (AOR: 2.014) were significantly associated with fertility desire.

Conclusion and Recommendation: Health care delivery should consider the desire for children by men and women living with HIV/AIDS in order to avert preventable untoward health and related consequences.

Abstract 62

DISCLOSURE OF HIV STATUS TO SEXUAL PARTNERS AND ITS EFFECT ON PMTCT SERVICE UTILIZATION AMONG HIV POSITIVE PREGNANT WOMEN ATTENDING ANC IN GOVERNMENT HEALTH FACILITIES IN ADDIS ABABA, ETHIOPIA, _Endalew Gemechu,_ *Amsale Cherie*

Background: Disclosure of HIV status has become an entry criterion for prevention of mother to child transmission (PMTCT) programs in resource constrained countries. However, the rate, barriers, outcomes and factors associated with HIV disclosure in HIV positive pregnant mothers is not well known.

Objective: This study was done to determine the rate, barrier, outcomes and factors associated with HIV positive status disclosure among HIV positive pregnant women attending ANC in government health centers in Addis Ababa Ethiopia.

Method: This cross-sectional facility based survey was done in Addis Ababa in June 2010. The study used a quantitative method. A structured questionnaire was applied to collect data from 107 pregnant women who were attending antenatal care service at eight government health centers in the city. The data was analyzed using Statistical Package for Social Science [SPSS] for windows (version 15).

Result: A total of eight health centers were included in the study. The study population consisted of 112 HIV positive pregnant women, of whom 107 agreed to be interviewed, making for a respondent rate of 95.5. The general level of disclosure in this study was high: 73% of the respondents disclosed their HIV serostatus to their current sexual partners. Bivariate and multivariate analyses showed that some independent factors favour disclosure to a partner. Women, who reported prior discussion about HIV testing and having a smooth relation with their partner before the test disclosed their HIV status to partners more than those who reported not having a prior discussion about HIV test and were living with their partners with disagreement (AOR 12.28, 95% CI 2.53-59.52, AOR 6.76, 95% CI 2.14-21.31, respectively). The study showed that women who disclosed their status to their partner were found to be more likely to participate in a prevention of mother to child transmission (PMTCT) program. The study also showed a close connections between disclosing one's HIV status to a main partner and engaging in safe sex practices (AOR 14.16, 95% CI 3.89- 51.49). The reasons cited for non-disclosure were fear of divorce and violence, fear of non-abandonment, fear of confidentiality, and fear of accusation of infidelity.

Conclusions: The study showed that HIV status disclosure among pregnant women is high. Although most participants disclosed their HIV sero-positive status, lack of disclosure by some women resulted in a limited ability to participate in PMTCT programs.

Key Words: HIV serotatus disclosure, PMTCT, HIV positive pregnant women, sexual partners.

Abstract 63

PREVALENCE OF CONVENTIONAL ANTIPSYCHOTIC INDUCED MOVEMENT DISORDERS AND ASSOCIATED FACTORS AMONG PSYCHOTIC PATIENTS TREATED AT AMANUEL SPECIALIZED MENTAL HOSPITAL, *Habtamu Taye, MSc; Pawe Health Science College, Pawe*

Objective: To assess the prevalence of conventional antipsychotic induced movement disorders and associated factors among psychotic patients treated at Amanuel specialized mental hospital.

Method: A hospital-based cross-sectional study was undertaken by using established score thresholds on a movement disorder rating scale to identify cases of conventional antipsychotic-induced movement disorders in a sample of 377 psychotic outpatients at Amanuel hospital. A systematic random sampling method was used to select the study subjects. Logistic regression was applied for comparison of the subjects with and without neuroleptics-induced movement disorders.

Results: Neuroleptics-induced movement disorders according to the clinical rating scales were 175 (46.4%), 108 (28.6%), and 45 (11.9%) for neuroleptic-induced parkinsonism, neuroleptic-induced akathisia and neuroleptic-induced tardive dyskinesia, respectively. Khat use AOR=1.927, 95%CI: 1.014-3.664 and alcohol use (AOR = 3.250, 95%CI: 1.039-10.162), were among the factors that remained to be statistically significant and independently associated with the presence of conventional antipsychotic induced movement disorders.

Conclusions: Many patients with psychotic disorders suffered from a conventional antipsychotic -induced movement disorders. Khat which is to be indigenous to Ethiopia, and alcohol were found to be associated with conventional antipsychotic induced movement disorders.

Abstract 64

ASSESSMENT OF THE QUALITY OF CARE GIVEN TO DIABETIC PATIENTS AT JIMA UNIVERSITY SPECIALIZED HOSPITAL DIABETIC FOLLOW-UP CLINIC, JIMA, ETHIOPIA, *Esayas Kebede Gudina, MD, Department of Internal Medicine, Jima University, Solomon Tamiru, MD , Department of Internal Medicine, Jima University, Fessahaye Alemseged, MD, MPHE, Department of Epidemiology and Biostatistics, Jima University, Rana Ram, DO, Emergency Medicine Resident, St Barnabas Hospital. Bronx, NY*

Background: Sub-Saharan Africa is presently enduring the heaviest global burden of diabetes and diabetic care in such resource poor countries is far below standards. This study aimed at describing the gaps in the care of diabetic patients at Jima University Specialized Hospital, and recommend ways to improve it.

Methods: 329 diabetic patients were selected as participants in the study, aged 15 years or older, who had been active in follow-up for their diabetes for more than 1 year at the hospital. They were interviewed for their demographic characteristics and relevant clinical profiles. Their charts were simultaneously reviewed for conditions related to diabetic and related morbidities. Descriptive statistics was used for most variables and a Chi-square test, where necessary, was used to test the association among various variables. P-value of < 0.05 was used statistically significant.

Results: Blood glucose determination was done for 98.5% of patients at each of the last three visits, but none had ever glycosylated haemoglobin results. The mean fasting blood sugar (FBS) level was 171.7 ± 63.6mg/dl and 73.1% of the patients had mean FBS levels above 130 mg/dl. Over 44% of the patients had already been diagnosed to be hypertensive and 64.1 % had a BP of > 130 and/or diastolic >80 mmHg during the preceding three visits. Diabetic eye and neurologic evaluations were done for 42.9% and 9.4%, respectively. Only 28.2% had renal function tests done over the preceding 5 years and $< 5\%$ of the patients had lipid testing, electrocardiography, echocardiography, or ultrasound of the kidneys during the same time. Diabetic neuropathy (25.0%) and retinopathy (23.1%) were the most common chronic complications documented among those evaluated for complications.

Conclusions: The overall aspects of diabetic care at the hospital were far below any recommended standards. Hence, an urgent action to improve care for patients with diabetes is necessary and future studies of patterns and prevalence of chronic complications using appropriate parameters is strongly recommended to see the true burden of the disease.

Abstract 65

ASSESSMENT OF ANTIHYPERTENSIVE DRUGS UTILIZATION PATTERN IN BUTAJIRA ZONAL HOSPITAL, BUTAJIRA, SOUTH ETHIOPIA, _Diltata Busser (BSc in pharmacy)*, Seid Mussa Ahmed (B.Pharm, MSc.)*   *Jima University, Department of Pharmacy, Jima, Ethiopia_

Background: There are problems for selecting anti-hypertensive agents by considering compelling indications and special considerations while the main goal of anti-hypertensive therapy is to achieve a targeted blood pressure level. Selecting agents for an individual should also account for certain special considerations and patients' co-morbidities. Special consideration therapy is warranted for certain patients with co-morbid conditions that may raise their level of risk for cardio-vascular disease.

Objective: Finding antihypertensive drugs utilization patterns in Butajira hospital, South Nations, Nationalities and Peoples Region of Ethiopia.

Methods: A retrospective cross-sectional study was carried out to assess antihypertensive drug utilization patterns in Butajira hospital from January 24 to January 29, 2011. The study subject consisted all hypertensive patients' history cards from January 1 – December 31, 2010 at the Butajira Hosptial.

Results: Out of 486 patients cards studied, 211 (43.42%), were on mono-therapy and 275 (56.58%) on combination therapy. Out of the patients on combination therapy, 220 (45.27%) and 55 (11.31%) were on 2 and 3 drugs, respectively. Regime change was observed on 49 (10.08%) of patients. The most common concomitantly taken drugs for antihypertensive were non-steroid anti-inflammatory drugs 74 (37.37%). Headache was the most common symptom found among the patients, (31 19.5%) and congestive heart failure (23 14.46%) and urinary tract infection (23 14.46%)) were the most common comorbidities affecting the patients.

Conclusions: Diuretics were the most prescribed antihypertensive drugs. The majority of hypertensive patients were treated by combination therapy. Moreover, most of the prescribers complied with the standard treatment guidelines.

Recommendation: The prescribers should treat pre-hypertensive patients by non-pharmacological treatment and stage 2 hypertension patients by combination therapy. Prescribers and dispensers should take with regard to drug interaction.

Keywords: Hypertension, anti-hypertensive drugs, mono-therapy,combination therapy, Butajira.

Abstract 66

ASSESSMENT OF MOBILE PHONE UTILIZATION FOR HIV/AIDS PATIENTS CLINICAL ATTENDANCE AND FOLLOW-UP IN ART PROVIDING HOSPITALS IN ADDIS ABABA, ETHIOPIA, _Abdi Yusuf_

Background: HIV/AIDS is a lifelong disease and the treatment and follow-up of PLWHA over time requires daily administration of antiretroviral drugs as well as monitoring of clinical progression and lab results to prevent multi-drug resistance. Mobile phone technology has a potential to address many health challenges facing resource-poor countries including the barriers that HIV patients encounter when accessing ART. The magnitude of mobile phone application and factors affecting it by patients attending ART clinic for healthcare services particularly understood in the management of HIV/AIDS patients clinical attendance, follow up and adherence are not well assessed in Ethiopia.

Objective of the study: The overall objective of this study was to ascertain the use of the mobile phone and factors affecting it's for monitoring HIV patients' clinical attendance and follow up at public hospitals in Addis Ababa

Methodology: A cross-sectional study employing both quantitative and qualitative methods was applied. Structured questionnaires and in depth interviews were used to collect data. Epi info16 and SPSS statistical software packages were used for data entry and analysis, respectively. Descriptive statistics using frequency and summary statistics were used to describe the respondents. And logistic analysis for the quantitative study and content analysis for the qualitative study were used to analyze data**.**

Result: A total of 422 patients participated in the study. Of those 85.5% had access to mobile phones, about 48.3% have no information about the service provided in ART, 37.4% were receiving calls and 23.0% had a history of calls by the adherence monitor. The utilization percentage of mobile phones was 46.8% for all respondents. Missing appointment dates [OR, 7.51 (95% CI 3.58, 15.77)], knowing about the service provided [OR, 9.25 (95%CI 4.89, 17.47)] and current adherence status (OR, 3.35 (95%CI 1.28, 8.80)] were significantly association with mobile phone use.

Conclusion: Our study showed that information about the availability of the service; adherence status and missed appointment dates were the major predictors of mobile phone use for a patient clinical attendance and follow up. We recommend that the system should be integrated with the general ART service and responsible bodies should allocate budgets for mobile phone service and motivate adherence monitors.

Abstract 67

ASSESSMENT OF SEXUAL BEHAVIOUR AND CONDOM USE AMONG MARRIED OR COHABITING COUPLES IN NEKEMTE TOWN, EAST WOLEGA , ETHIOPIA. *Tolesa Regasa, BSc, Assistant lecturer at Hossana College of Health Science; Assefa Seme (MD, MPH, PhD fellow), Department of Community Health, Addis Ababa University*

Background: Rates of human immunodeficiency virus (HIV) infection among married women or those in committed relationships are increasing rapidly. Most HIV infection in sub-Saharan Africa occur during heterosexual intercourse between couples. The primary mode of HIV transmission in Ethiopia is via heterosexual contact. Over 90% of adult cases of HIV in Ethiopia are attributable to heterosexual activity.

Objective: The objective of this study was to assess sexual behavior and condom use among married / cohabiting couples in Nekemte town.

Methods: A community-based cross sectional survey was made from February to March, 2010 in Nekemte town. The data was collected through quantitative and qualitative methods. Two multistage sampling techniques were used. In the first stage, a simple random sampling technique was used to select the kebeles. In the second stage, systematic random sampling was applied to select 768 couples (768 male and 768 female) and 1536 individuals from 768 households were interviewed.

Results: The prevalence of premarital sexual intercourse was 30.6% among married/cohabiting men and 19.7% among women. However, the transition from premarital sex to that of wedlock among those who had premarital sex (235 men vs 151 women) was low: 40 (17.0%) among men and 40 (26.5%) among women. About 7% of the male and 2.1% of the female respondents reported that they had extramarital partners and about 4% of males reported having had more than one sexual partner in the preceding 12 months. Despite this, the prevalence of having ever used of condoms was 5.4% (95% CI 4.3, 6.5%) and 4% (95% CI 3.0, 5%) in the preceding 12 months. In the multivariate analysis, the number of life time sexual partners, perceived risk of HIV infection, suspecting spouse having an extramarital partner and discussion about condom had significant association with condom use by both sexes.

Conclusion: Despite the fact that some married /cohabiting people engaged in risky sexual behaviors or extramarital sex, condom use among couples has remained very low.

Abstract 68

POST ABORTION CARE QUALITY STATUS IN HEALTH FACILITIES OF GURAGHE ZONE *Gezahegn Tesfaye (MPH in reproductive health) Haramaya University Department of Public Health*

Background: Among the causes of maternal mortality in developing countries, unsafe abortion accounts for 13% of maternal deaths. Ethiopia is one of the developing countries with the highest mortality ratio in the world with unsafe abortion being the major contributor.

Objective: To assesses post abortion care quality status in health facilities of Guraghe zone.

Methods: A cross-sectional study design with both quantitative and qualitative methods was used. Patient interviews, direct service observation, provider self-administered questionnaire and inventory of equipment and supplies were used for the assessment. Six health centers, two hospitals and 422 post-abortion patients were included in the study.

Results: Patient-provider interaction was generally satisfactory from the patient's perspective. The majority of the respondents (93.5%) said that they were treated with politeness and respect. Post-abortion FP counseling and method provision was found to be satisfactory as compared to similar studies conducted in Ethiopia. Overall, 83.5% of the patients were satisfied with the services. Those who said waiting time was long were less satisfied and unemployed women were more satisfied than others.

Conclusion: The study revealed several improvements as well as problems in the provision of post-abortion care service in the studied health facilities.

Abstract 69

BENEFITS OF INTRODUCING MEDICAL METHODS FOR ABORTION RELATED SERVICES: THE CASE OF TIGRAY, ETHIOPIA, *Ndola Prata, Bixby Center for Population, Health, and Development, University of California, Berkeley, Amanuel Gessessew, Mekele University, College of Health Science, Mekele, Ethiopia, Martine Holston, Venture Strategies Innovations, Berkeley, California, Rachel Weinrib, Venture Strategies Innovations, Berkeley, California*

The use of medication for abortion related services posits an opportunity for task shifting to midlevel providers, and service expansion to the lowest levels of the health care system that lack capacity for surgical interventions. A comprehensive abortion care (CAC) program was introduced in Tigray, Ethiopia. Services provided included both surgery and medication, and all of the levels of the health care system were involved, from health post to hospital. The CAC program provided services to women from June 2009 to December 2010 at selected sites. Data from 4354 patient records and 2210 exit interviews were analyzed to evaluate the overall feasibility of CAC services and patient satisfaction with the program. The majority of women using the services sought safe termination (92%). Since the introduction of medication methods, nurses have provided the most of the services at hospitals (>98%), enabling clinical staff and doctors to focus more advanced surgical interventions and complicated cases. HEWs provided care to 57 women seeking safe abortion at health posts: 42 were given misoprostol alone for safe termination, 7 were given misoprostol for treatment of incomplete abortion, and 8 were referred to a higher level facility for treatment. Treatment success rates for newly trained HEWs and mid-level providers were as expected, with medication. Additionally, they were able to follow up and re-assess the necessity need for further treatment accurately. Client satisfaction with the program was high: most women (99%) rated their overall experience as "good" (vs. "bad" or "so-so"). These findings showed that introducing medication methods increased access to abortion-related services by allowing providers and or facilities without surgical capacity to provide the services.

Abstract 70

ASSESSMENT OF SEXUAL BEHAVIOR AND RISK PERCEPTION ABOUT HIV/AIDS AMONG ETHIOPIAN MILTARY PEACEKEEPERS RETURNEE FROM UN MISSION IN 14TH DIVSION OF NORTH COMMAND, *Fasil Kenea (Bsc,MPH), Mitike Molla (PhD)*

Background: Mobile populations are at a higher risk of HIV acquisition and transmission because of their life style and working condition that force them to leave their families for a long period and the military is one such group.

Objective: To evaluate the sexual behavior and risk perception of HIV/AIDS by uniformed peacekeepers of the 14th Division of Ethiopia's North Command that returned from a UN mission. These were from Aduwa town.

Methods: A mixed research method using a cross-sectional quantitative and qualitative apprach was carried out from August 2010 – February 2011. Quantitative data were collected using a self-administered questionnaire among 342 Ethiopian UN peacekeepers who returned from Darfur and Liberia. Three focus group discussions were conducted among 24 returnees using a semi-structured topic guide. Data were entered and analyzed using SPSS version 16. Association between selected factors was assessed using a binary and multiple logistic regressions. The qualitative data were transcribed and translated into English and then narrated.

Result: A total of 342 uniformed peacekeepers participated in the study obtaining a response rate of 95%. The mean age of the respondents was 34.69(SD±5.1). Half of the respondents 188 (55%), were had married and the mean age at marriage was 27.74 (SD±4.01). Knowledge of the respondents about HIV and AIDS was high at 62.4%. Amongst the ever-married respondents, 29 (8.5%) had had extra marital sex while in peacekeeping. Out of the total participants, 54 (15.7%) had sex during the mission reporting 28 (51.85%) reported to have had more than one sexual partner. Among these only 39 (72.2%) used condoms consistently while in peacekeeping. Condom use in the preceding 12 months before the study was poor: out of 188 ever men, only 32 (17.02%) had used condoms and 30 (15.96%) did not use it consistently while having sex with casual partners. About 40 (11.7%) participants reported contracting STI in the preceding 12 months before the study. Only 5.8% of the respondents perceived themselves to be at risk of HIV during their peacekeeping mission. Regression analysis indicated that those who believed peacekeeping environment predisposed them to unsafe sex [AOR and (95% CI) 5.86, (1.47, 23.50)], those who believed that they would

be at risk of HIV/AIDS if they continued with the behavior they had during the peacekeeping mission [AOR=4.00, 95%CI=1.01, 15.70], those who had sex while in the peacekeeping mission [AOR=8.23, 95%CI=1.01, 67.45] were more likely to perceive themselves at risk of HIV. Peacekeepers, who had a limited knowledge about HIV/AIDS [AOR with 95%CI=3.14(1.01, 11.49)] and service duration of 11-18 months [AOR with 95%CI=24.85(6.85, 90.20)] were more likely to engage in extramarital sexual partnership than their counterparts.

Conclusion: Despite their high knowledge about HIV/AIDS, the uniformed peacekeepers were engaged in risky sexual behaviors and also perceived themselves to be at lower risk of contracting HIV and AIDS. This low perception predisposes themselves and the community both at the host country and back home. HIV prevention programs should target uniformed population in general and UN peacekeepers in specific. In addition health promotion messages should consider the unique context of peacekeeping environment.

Abstract 71

PREVALENCE AND BELIEF IN THE CONTINUATION OF FEMALE GENITAL CUTTING AMONG HIGH-SCHOOL GIRLS IN HADIYA ZONE SOUTHERN ETHIOPIA,
Mulugeta Tamire (MPH), Department of Nursing, Debre Berhan Unversity, MITIKE MOLLA (PhD), School of Public Health, Addis Ababa University.

Objective:
The objective of the study was to assess the prevalence and beliefs in the continuation of Female Genital Cutting (FGC) among high-school girls in Hadiya Zone of southern Ethiopia.

Method:

A cross-sectional quantitative survey with complementary qualitative method was carried out among high-school girls in Hadiya Zone from January 2011 to February 2011. In which, 797 were systematically selected from four high schools to participate in completing a self-administered questionnaire for the study. There was a response rate of 97.8%. Three focus group discussions with community members and in-depth interviews with circumcisers were conducted using a semi-structured guide. After data collection was completed, data entry and clearing were done using EPI- Info version 3.5.1 and exported to SPSS 16.0 package for analysis. Whereas, the qualitative data was transcribed, translated and coded with Open-Code version 3.6. Then categories and themes were developed using Content Analysis.

We found that 641 (82.2%) of the girls were circumcised at the mean age of 9 years. Half of the total participants responded that FGC was being practiced in their village. A majority 675 (86.7%), stated that FGC is harmful, while 606 (77.7%) thought that a girl has the right not to be circumcised. More than half, 384 (59.9%) of the cutting was performed by traditional circumcisers while 186 (30%) of the cutting was performed by health professionals. Group circumcision is common in the area, 429 (67%) were circumcised in groups and majority 528 (82.5) of the cutting was in their own homes. Few of the circumcised girls, 60 (9.4%), supported their status as a circumcised girls and only 5 % believed in the continuation of FGC. Culture, stigma and hygiene were the reasons for the continuation of the practice.

As a conclusion, we noticed that the prevalence of female genital cutting is high among the high school girls. While there is an urgent need to stop the practice in Hadiya Zone, cultural, beliefs related to maintaining the hygiene of the genitalia and social factors are sustaining the practice. Therefore, there should be collaborative efforts from

governmental and non-governmental organizations to support and bring change in the whole community.

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