NATIONAL HIVAND AIDS RESEARCH AND BEST PRACTICES CONFERENCE

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The following people and organisations are acknowledged for their support towards the Research and Best Practices Dissemination Conference: the Executive Management of the NAC, technical and support staff of NAC, who provided management and technical support to the preparations and holding of the Conference. Lastly but not the least, the NAC extends a vote of thanks to the management and staff of Malawi Institute of Management for hosting the Conference.

TRACK A: HIV PREVENTION: COMMUNICATIONS AND BIO-MEDICAL INTERVENTIONS

This Track looks at research into prevention strategies, experiences and questions of the social and bio-medical nature [HIV testing, prevention of mother to child transmission of HIV] and HIV prevention programs that have demonstrated innovation and impact. The Track also highlights research and program designs relating to community advocacy and social mobilization.

A1.Scaling Up Services Through Community Involvement

C. Osborne and M. Chintu

Background:
PMTCT services in Malawi are limited. Save the Children, in partnership with ADRA, AED and JHPIEGO, with USAID funding, formed Umoyo Network, to provide sub-grants and technical support to enable five NGOs to scale up PMTCT services; they devised community involvement strategies to do so.

Objectives and scope:
To scale up PMTCT services through greater community involvement.

Methodology:
Umoyo Network facilitated PMTCT service delivery assessments with the NGOs, who also undertook surveys in their communities. The assessment and survey findings enabled development of capacity building plans based on identified service gaps and needs. The NGOs involved men in peer education of fathers, encouraged grandmothers to form 'gogo' groups to support mothers in safe infant feeding practices and set up faith leader networks to address faith-based barriers to care seeking. They also worked with District Health Offices (DHO) to ensure that their PMTCT work was consistent with government policy.
The NGOs involved clients in assessing the quality of services and as members of performance quality improvement teams.

Results:
The five NGOs increased the number of PMTCT sites from 2 to 18 between 2002 and 2006. The number of women enrolled in PMTCT services increased significantly. Many women joined mother support groups. The quality of the testing and reproductive health services measurably improved. Over 95% of babies of HIV positive mothers enrolled in the PMTCT services tested HIV negative at eighteen months of age.

Conclusions:
Involving communities in the PMTCT programme can help with overcoming barriers to care seeking, reduce stigma and discrimination and improve the quality of the service

Recommendations:
Community mobilization to involve men and leaders is crucial for scaling up quality PMTCT services.
Grandmothers are a useful and enthusiastic group of community members to support changes in infant feeding practices.
Informed community members make valuable contributions to improving the quality of PMTCT services.

A2. Knowledge, Attitude And Practices Of People In Same Sex Relationships In Malawi

Dr P.Ntata, G.Trapence, W. Chibwezo, D.Nyadani. Center for the Development of People Organization [cedep_org@yahoo.com]

Background

Understanding the sexual behaviours of the populations vulnerable to HIV is an important component in the battle against the AIDS pandemic. Yet policy makers in Africa have often overlooked men who have sex with men (MSM) as vulnerable. This is because of stigmatization and denial of the existence of homosexual behaviour.

However, literature documents both the presence of this population in Africa and the importance of reaching them with HIV/STIs information and services.

MSM plays a significant role in HIV transmission in Africa, but relevant research in Malawi has been lacking. To fill this gap, Centre for the Development of People (CEDEP) conducted a research using a sample of 100 MSM from selected districts in Malawi in November 2007.

Objectives

The survey intended to understand the extent to which MSM are at risk of HIV and identify MSM sexual health needs in order to develop appropriate interventions.

Methodology

The study used qualitative research design, structured questionnaire and snowball-sampling method. The data was analysed using SPSS.

Key Results

-MSM exists in significant numbers.

-Sex with multiple partners is high.

-MSM sexual behaviour has implications on reproductive health of the general population.

-Low consistent use of condoms.

-59 percent of them went for VCT. Only 16.4 percent were asked about homosexuality.

-MSM are vulnerable to stigma, discrimination and violence.

Recommendations.

The results from the research indicate a considerable bearing MSM has on HIV/AIDS. Therefore, interventions targeting this population are overdue. These could include:

-VCT that is confidential and sensitive to the HIV/STI prevention needs of MSM.

-Peer education on health sexual practices.

-Mapping exercise and HIV/AIDS prevalence study to explore the dynamics of HIV transmission between MSM and the general population.

A3.Assessment Of Places And Sites Where People Meet New Sexual Partners And The Prevalent Sexual Behaviours In Those Sites: Findings From Place Studies In Lilongwe, Blantyre And Nsanje

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The PLACE protocol is a method for identifying areas within regions and districts that have sexual partnership formation whose patterns are capable of spreading and maintaining HIV infection. Findings provide indications of the extent to which prevention programs are reaching these sites, gaps are outlined and sexual behaviours of patrons of the sites are described. Centre for Social Research implemented the protocol in the urban areas of Lilongwe and Blantyre and in Nsanje district from April to October 2006. Data collection in the three districts revolved around the nature and types of sites where people meet new sexual partners, nature of sexual networking and partnerships, characteristics of patrons who visit the sites and the knowledge of and self-perception of risks among the patrons. Interviews were held with various types of informants including owners of the sites, patrons of the sites (sex workers, their clients and other clients found socializing at the sites). In Nsanje, interviews were also held with executive members of the District Sexual Cleansing Society.

Findings show remarkable similarities in the types of sites where people meet news sexual partners in Lilongwe, Blantyre and Nsanje. In all three cases, sites such as bottlestores, nightclubs, resthouses, Kachasu joints and 'brothel' type of dwellings exist. In Nsanje, fishing docks along Shire River also serve as sites. The team identified 551 sites in Lilongwe, 691 sites in Blantyre and 62 sites in Nsanje. Localized brothels exist both in Lilongwe and Blantyre and in Nsanje and these are usually located within housing locations making them difficult to identify so easily. Very young girls serve in those brothels.

Only half (52%) of the sites where people meet new sexual partners have had HIV prevention intervention in Blantyre, 47% in Lilongwe and 46% in Nsanje). Peer education had been accessed in 22% of sites in Blantyre, 18% in Lilongwe and 13% in Nsanje. Free condoms were distributed in 32% of the sites in Blantyre, 30% in Lilongwe and 30% in Nsanje. On the day of the visit, 59% of the sites in Blantyre, 54% in Lilongwe and 60% in Nsanje had the socially marketed condoms. Distribution of free condoms is very low (only 18%) as opposed to selling of condoms (91%) within a given period of time and managers show more willingness to sell than to distribute the free condoms.

Most of the patrons (84%) visit the sites frequently with almost 90% of the female patrons visiting the sites everyday. While female patrons visit same sites more frequently, male patrons are mobile visiting several sites within one night. More than two-thirds of the female patrons visit the sites primarily in search of sexual partners (68% in Lilongwe, 63% in Blantyre and 83% in Nsanje). About 70-85% of the female patrons report to have ever attracted sexual partners from the sites. Condom use in Nsanje and Blantyre was lower compared to Lilongwe. In general, only 9% reported that they have never had sex without a condom. Where partners agree on an all night sexual encounter, the risks of engaging in unprotected sexual intercourse has been found higher. Estimations from the data show that a condom was used in only 47% of the total recent sexual episodes (or encounters). Transactional sex is very prevalent with factors such as use or non use of condoms, area of residence of female patrons, age and education playing roles in determining charges per sexual episode.

This study identifies many gaps in reach of interventions and in targeting groups at higher risk of contracting HIV and STIs and in people's sexual behaviours. Concerted efforts are therefore needed in order to counteract the situation. A repeat of similar studies by the respective assemblies is also recommended.

A4. HIV Incidence and Learning One's HIV Status: Evidence From Repeat Population-based Voluntary Counseling and Testing in Rural Malawi

Francis Obare[1]*, Peter Fleminga, Philip Anglewicza, Rebecca Thornton*[2]*, Francis Martinson*[3]*, Agatha Kapatukac, Michelle Poulina, Susan Watkinsa,*[4]*, Hans-Peter Kohlera Susan Watkins [swatkins@ccpr.ucla.edu]*

Objective: To examine the effect of VCT on subsequent behavior (divorce and HIV incidence) in rural Malawi.

Methods: Behavioral and biomarker data were collected from approximately 3000 adult respondents in three sites (South, Center, North) in a panel household survey (2004 and 2006). In 2004, oral swab specimens were collected and analyzed using enzyme-linked immunosorbent assay and confirmatory Western blot tests while finger-prick rapid testing was done in 2006. We use cross-tabulations with chi-square tests to determine the statistical significance of differences in acceptance of repeat VCT and in HIV incidence per 100 person-years (PY).

Results: The uptake of VCT (over 90%) was robust to variation in testing protocols. Among those who tested positive in 2004, 10% of those who did not obtain their test results had divorced or separated by 2006 compared to only 4% of those who did (χ^2=2.5; p=0.117). Incidence for this rural sample was 0.6/100-PY and was significantly higher among those formerly married (3.2/100-PY) than those currently (0.6/100-PY) or never married (0.0/100-PY), among those who had any sexually transmitted infection in 2004 (3.7/100-PY) than those who had not (0.5/100-PY), in the South (1.3/100-PY) than in the North (0.4/100-PY) or Center (0.3/100-PY), and among those who were negative in 2004 but who did not receive their test results (1.1/100-PY) than those who received their test results (0.5/100-PY).

Conclusion: Learning that one is HIV negative may be a key factor for effective HIV prevention and behavior change.

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A5.WOMEN SELF-PERCEPTION OF AUTONOMY AND HIV/AIDSRELATED BEHAVIORS IN THE CONTEXT OF THE HIV/AIDS EPIDEMIC

Kim Deslandes, Department of demography, Université de Montréal

Objectives and scope: It has long been assumed that rural women in Malawi do not have sufficient autonomy to affect their responses to the AIDS epidemic. There is, however, little systematic evidence to support this assumption. Thus, the main goal of this paper is to evaluate the extent to which women perceive that they have autonomy, and how this is related to their AIDS-related awareness and behaviors.

Data and Methods: Data from the 2006 wave of the Malawi Diffusion and Ideational Change Project (MDICP), a longitudinal survey on the role of social networks regarding HIV/AIDS, family size, and family planning in rural Malawi, is used. The sample consists of all currently married women in a monogamous union. AIDS awareness and behaviors were restricted to the three most widespread ways of protection: abstinence, faithfulness to spouse, and condom use. Five separate indexes were constructed to represent women's self-perception of autonomy: geographic mobility, acceptability of divorce, wife beating, negotiation of safer sex, and forced sex. Descriptive and multivariate regression analyses are used to estimate the association between the perception of autonomy and AIDS awareness and behaviors.

Results: Preliminary analyses show that there is a statistically significant association between women's perceived autonomy and their AIDS awareness and behaviors. Particularly interesting is that the more autonomous the woman perceives herself to be the more likely she is to report that she is able to negotiate safe sex and the more likely she is to have used condoms with her current partner.

Conclusions: Many women of rural Malawi do perceive themselves as having enough autonomy to protect themselves within their marital union. In addition, self-perception of autonomy influences women's AIDS awareness and their protective behaviours.

Recommendations: Future prevention activities should dwell on strategies married women have already developed in response to HIV, such that interventions can be more precisely targeted to areas where women need support.

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A6. Religious Messages And Influences On The ABCs Of HIV Prevention

Jenny Trinitapoli, S. Lungo, M. Manda, J. Phiri, C. Singano

Objectives and scope This study examines the relationship between religion and HIV-risk behaviors in rural Malawi, giving special attention to the role of religious congregations, the organizations with which rural Africans have most immediate contact. The first aim is descriptive – to identify overall patterns and variations in what religious leaders in rural Malawi teach about HIV and about sexual behavior in light of the epidemic. The second aim is to assess how religious organizations impact the behavior of individual members.

Data and Methods: Two sources of data are used. First, the data on sexual behavior, religious denomination and religious participation are drawn from a survey of approximately 4000 respondents conducted by the Malawi Diffusion and Ideational Change (MDICP). Second, the Malawi Religion Project provides information on the characteristics of all the religious congregations attended by the MDICP respondents (for example, their doctrines, their strictness). Muiltilevel regression models are used to estimate the associations between the characteristics of congregations and the reported risk behaviors of individuals.

Results/Lessons learnt: Three outcomes are examined; these correspond with the ABCs of HIV prevention are examined: abstinence (for the unmarried), fidelity (for the married), and condom use. There is a statistically significant negative association between congregational strictness and risky sexual behavior: the stricter the congregation, the less risky behavior. This suggests that religious congregations are, indeed, an important force in AIDS-related behavior change.

Conclusions: Many religious leaders in rural Malawi are taking an active and effective role in promoting HIV prevention. Their approaches, however, differ from those promoted in AIDS education workshops. It is thus important to learn more about what religious leaders are doing in response to AIDS and about the characteristics of religious congregations.

Recommendations: It does not appear to be necessary to provide support or training for l;ocal religious leaders; rather, it is likely that groups involved in HIV prevention can learn from the approaches of the various denominations.

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A7. How Well Do Rural Malawians Understand The Epidemiology Of HIV?

Susan Watkins, University of Pennsylvania

Objectives and Scope: Most research on what rural Malawians know or do not know about the epidemiology of HIV is taken from surveys such as the DHS. Yet this may be quite different from what they say when they talk informally about someone who is sick, and why. Thus, in this paper we examine local understandings and misunderstandings of the epidemiology of HIV as people confront HIV in their daily lives rather than on a survey.

Data and Methods: We draw from a rich set of ethnographic field journals collected between 1999 and the present in conjunction with the Malawi Diffusion and Ideational Change Project (MDICP), a longitudinal study in three sites, Balaka, Mchinji and Rumphi. A small number of Form 4 graduates living in the three sites were asked to simply listen to public conversations as they went about their daily duties, for example going to the market or at the borehole, and to make notes of these conversations when they returned to their home. Their notes were written in English in ordinary school notebooks, and sent to the author. There are now approximately 700 ethnographic field journals, each about 12 single-spaced typed pages.

Results: Rural Malawians often diagnose the cause of the sickness or death of a friend, relative or neighbor. In these "social autopsies", they pool their knowledge of the individual and his/her life. They typically begin with the physical symptoms (e.g. weight loss, sores on the skin, TB). Since they know, however, that AIDS takes many forms and they do not want to make a false diagnosis, they also provide information on the sexual history of the individual, to see if it is consistent with a diagnosis of AIDS. When a diagnosis of AIDS is reached, typically a moral lesson is drawn: they point to behavior that should be avoided. Interestingly, in these social autopsies, non-sexual modes of transmission are rarely mentioned: although people may report on surveys that mosquitoes could transmit HIV, in practice this is not taken seriously. Thus, these sorts of misconceptions are not important. There are two major misconceptions, however, that are important because they may affect their choice of a marital partner and their willingness to be tested. Rural Malawians do not fully appreciate that many years pass between infection and symptoms; thus, if a widow of a man who died from AIDS has no symptoms in the next few years, she is considered to be HIV negative. Rural Malawians also overestimate the transmission probabilities of HIV. They assume, for example, that after a single act of unprotected intercourse with a bar girl they are likely to be infected, and thus may be reluctant to seek VCT.

Conclusions: Rural Malawians understand that the risk of HIV comes primarily from sexual behavior. They do, however, hold two important misconceptions: 1) they overestimate the transmission probability of HIV and 2) they underestimate the duration of time from infection to symptoms. These misconceptions may lead them to assume a potential sexual partner is HIV free when they are not, or vice versa.

Recommendations: That correct information on these two issues be disseminated.

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A8. What Who Stage Iii Disease Conditions Are Used To Start Adults On ART?

Dr D.D Ngoma (ART SUPERVISOR CENTRAL REGION) deogratias damas [ngomajr@yahoo.com]

Background:
By September 2006, there were over 68,000 patients started on ART in the public sector, of which 66% were started due to being assessed in WHO stage III. There is no regional data on what disease conditions place patients into Stage 3, and we therefore carried out a study to investigate this issue.

Objectives and scope:
The objectives were to determine the type and proportion of WHO stage III symptomatic conditions used to start adults on ART and the relationship to type of facility. The study was carried out in 34 public sector ART sites in the central region and considered patients started on ART between January and September 2006.

Methodology:
This was a retrospective study using data from ART registers and treatment master cards.

Results/Conclusions:
There were **4299** WHO stage III patients, 1613 (**37.40%)** males and 2686 (**62.50%)** females. The three commonest conditions for patients in Stage 3 to start ART were: unintentional weight loss **808pts** (20.08%), SB infection **671pts** (16.67%), prolonged fever **588pts** (14.62%).The number and (%) of patients with symptomatic conditions (weight loss, fever, and diarrhea) was **1892pts** (47%).A higher proportion of these patients was started in DHs (**845pts)** compared with MHs (**383pts).**
In conclusion there were a large number of patients started on ART due to symptomatic conditions, which might hide serious opportunistic infection such as TB and septicemia.

Recommendations;
- There should be capacity building to improve clinical staging of patients and particularly training to ensure that patients with TB are not missed
- ART supervisors should regularly visit facilities to help improve clinical skills in staging
- Strengthen ART sites laboratory services for diagnostic and monitoring purposes
- A further study should be done to look at mortality in patients with different Stage 3 conditions.

A9. Perceptions On HIV/AIDS And VCT Access Amongst Rural Communities Of Nayuchi (Machinga)

P Woods, E Kapyepye, H Chanza, J Mbewe, S Mnenula

BACKGROUND:

VCT is understood to be one of the most important elements in the fight against HIV/AIDS in Malawi. However, a lot of people do not access this essential service due to a number of factors. So, a lot of people who could have been diagnosed early and access ART and other HIV/AIDS related services late and have undesirable treatment outcomes. A lot of awareness campaigns have been conducted but do no seem to be making much impact. In trying to understand this, an evaluation of Machinga HIV/AIDS project was conducted in May, 2007.

Objectives of the study:

1. To find out factors that facilitate access to VCT in Nayuchi
2. To find out factors that hinder access to VCT in Nayuchi

METHODOLOGY:

This was and end of project evaluation of a 3 year project which aimed to bring about socio-cultural changes to reduce transmission of HIV. Study subjects included in and out of school youths, teachers, commercial sex workers, fishermen, PLHIV and 255 individuals over 14 years of age selected at random from the population. The total sample size for the questionnaire was 577.

RESULTS:

The results presented in this paper were from the questionnaire survey in which respondents were asked the following questions: "What were the reasons for going for VCT" and "what were the reasons for not going for testing?" For those who went for VCT, 55.6% undertook the test because they wanted to know their status for them to plan their future, 16.3% due to constant illnesses and weight loss, 11.2% due to pregnancy and wanted to protect the unborn baby, 6.7% due to their role as youth leaders and wanted to set an example.

For those who did not go for the test, their reasons included fear 24.8%, distance too far 23.7%, confidence that they had not been exposed to HIV 15.7%, not ready 11.5%, lack of knowledge 7.6%, too busy 5.7%

It was interesting to note through this questionnaire VCT coverage in Machinga was 33% which is significantly higher than the national VCT coverage.

CONCLUSION:

Personal perceptions around HIV testing are very important in influencing the decision to seek VCT, alongside physical access to testing facilities. Very few respondents were unaware of the availability of VCT.

RECOMMENDATIONS:

1. Programs on HIV/AIDS should include community mobilization and sensitization to deal with issues of stigma and discrimination
2. There is an urgent need to decentralize voluntary counseling and testing and other HIV/AIDS related services to the local health clinics
3. government to seriously look into issues of staffing and capacity building for those health care workers that are currently providing the various services.

A10. Local Reactions to Door-to-Door HIV Voluntary Counseling and Rapid Testing in Rural Malawi

Nicole Angotti (University of Texas at Austin), Eitan Kimchi (Jefferson Medical College), Lauren Gaydosh (University of Pennsylvania), Susan Cotts Watkins (University of Pennsylvania), Sara Yeatman (University of Texas at Austin)

Objectives and Scope: In Malawi, and throughout other high-prevalence countries of sub-Saharan Africa, UNAIDS and other agencies have emphasized the importance of voluntary counseling and testing (VCT) for HIV as a critical strategy for HIV/AIDS prevention. Often, however, there has been considerable reluctance to be tested, a reluctance that has been attributed to fear of receiving a positive diagnosis with its implications of death and expectations of being stigmatized. This paper examines reactions to door-to-door VCT using both survey and qualitative data. In so doing, we consider what rural Malawians actually say about VCT and what they do when an HIV rapid test is offered to them free of charge in their homes.

Data and Methods: We draw upon and integrate four types of data collected in 2006 by the Malawi Diffusion and Ideational Change Project (MDICP), a longitudinal household panel study conducted in three sites in rural Malawi (Balaka, Mchinji and Rumphi) to examine local responses to door-to-door VCT: 1) survey data collected from approximately 3,000 respondents specific to the respondent's decision to be tested (or not) and to receive his/her results (or not); 2) biomarker data from parallel HIV rapid tests (Determine® and UniGold) conducted on the same 3,000 respondents; 3) two sets of semi-structured interviews with a sub-sample of respondents, one set which includes married couples approached for couples VCT (n=25 couples) and the other which includes those approached for individual VCT (n=63 individuals); and 4) ethnographic data collected by VCT counselors and nurses who recorded local conversations (both from within and outside the MDICP sample) about VCT.

Results/Lessons Learnt: We find that the majority of those offered HIV counseling and rapid testing in their homes consented to be tested and to receive their results immediately. Ninety-two percent of respondents agreed to be counseled and tested, and 98% chose to receive their results. Our semi-structured interviews and ethnographic data revealed that respondents expressed a strong preference for door-to-door testing over testing in district hospitals/clinics as well as a preference for rapid tests over tests with delayed results. Specifically, respondents expressed concern over the cost, accessibility and threats to confidentiality/privacy in district hospitals/clinics.

Conclusions: Respondents and couples reported high acceptability and comfort levels with being tested, counseled and learning their HIV test result in their home.

Recommendations: National efforts to scale-up VCT should include provisions for door-to-door testing conducted by VCT counselors from outside the clients' area and who are not known to the clients.

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A11. Assessment Of Places And Sites Where People Meet New Sexual Partners And The Prevalent Sexual Behaviours In Those Sites: Findings From Place Studies In Lilongwe, Blantyre And Nsanje

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Abstract

The PLACE protocol is a method for identifying areas within regions and districts that have sexual partnership formation whose patterns are capable of spreading and maintaining HIV infection. Findings provide indications of the extent to which prevention programs are reaching these sites, gaps are outlined and sexual behaviours of patrons of the sites are described. Centre for Social Research implemented the protocol in the urban areas of Lilongwe and Blantyre and in Nsanje district from April to October 2006. Data collection in the three districts revolved around the nature and types of sites where people meet new sexual partners, nature of sexual networking and partnerships, characteristics of patrons who visit the sites and the knowledge of and self-perception of risks among the patrons. Interviews were held with various types of informants including owners of the sites, patrons of the sites (sex workers, their clients and other clients found socializing at the sites). In Nsanje, interviews were also held with executive members of the District Sexual Cleansing Society.

Findings show remarkable similarities in the types of sites where people meet news sexual partners in Lilongwe, Blantyre and Nsanje. In all three cases, sites such as bottlestores, nightclubs, resthouses, Kachasu joints and 'brothel' type of dwellings exist. In Nsanje, fishing docks along Shire River also serve as sites. The team identified 551 sites in Lilongwe, 691 sites in Blantyre and 62 sites in Nsanje. Localized brothels exist both in Lilongwe and Blantyre and in Nsanje and these are usually located within housing locations making them difficult to identify so easily. Very young girls serve in those brothels.

Only half (52%) of the sites where people meet new sexual partners have had HIV prevention intervention in Blantyre, 47% in Lilongwe and 46% in Nsanje). Peer education had been accessed in 22% of sites in Blantyre, 18% in Lilongwe and 13% in Nsanje. Free condoms were distributed in 32% of the sites in Blantyre, 30% in Lilongwe and 30% in Nsanje. On the day of the visit, 59% of the sites in Blantyre, 54% in Lilongwe and 60% in Nsanje had the socially marketed condoms. Distribution of free condoms is very low (only 18%) as opposed to selling of condoms (91%) within a given period of time and managers show more willingness to sell than to distribute the free condoms.

Most of the patrons (84%) visit the sites frequently with almost 90% of the female patrons visiting the sites everyday. While female patrons visit same sites more frequently, male patrons are mobile visiting several sites within one night. More than two-thirds of the female patrons visit the sites primarily in search of sexual partners (68% in Lilongwe, 63% in Blantyre and 83% in Nsanje). About 70-85% of the female patrons report to have ever attracted sexual partners from the sites. Condom use in Nsanje and Blantyre was lower compared to Lilongwe. In general, only 9% reported that they have never had sex without a condom. Where partners agree on an all night sexual encounter, the risks of engaging in unprotected sexual intercourse has been found higher. Estimations from the data show that a condom was used in only 47% of the total recent sexual episodes (or encounters). Transactional sex is very prevalent with factors such as use or non use of condoms, area of residence of female patrons, age and education playing roles in determining charges per sexual episode.

This study identifies many gaps in reach of interventions and in targeting groups at higher risk of contracting HIV and STIs and in people's sexual behaviours. Concerted efforts are therefore needed in order to counteract the situation. A repeat of similar studies by the respective assemblies is also recommended.

A12. Violence Against Women (VAW) – A Vulnerability Factor To HIV Infection? Survey On Gender Based Violence In Dowa District, Malawi.

C. E. Nzawa[5]*; A. Majamanda*[6]*; I. Chunga*[7]*; J.Luhana*[8]*; L. Kaunda*[9]

Background: The Civil Liberties Committee (Dowa Chapter) in partnership with Tigwiranemanja Women's Network and ActionAid International Malawi (AAIM) conducted a district wide survey on Gender based Violence in Dowa District, Malawi, in August, 2006.

A brief justification/rationale: Violation of rights of women and girls appears to be rampant in most communities of Malawi. Dowa district appears to be one of the districts where gender based violence cases are high. There is a growing observation and concern by social development, gender and public health experts and organizations that violence against women and girls is making them vulnerable to HIV infection. However, the problem of VAW has not been adequately documented. As such, currently there is no data to assist in determining the level of correlation between violence perpetrated against women and girls and their vulnerability to HIV infection.

Objectives and scope: To adequately document and determine the extent (prevalence rate and nature) of the problem of violation of rights of women and girls in order to provide a basis for informing programming, social mobilisation and advocacy work, to prevent further HIV transmission among women and girls. The survey covered the following areas: rape, child labour, love relationships between girls and teachers in schools, domestic violence, administrative justice.

Methodology: The survey used a combination of quantitative and qualitative techniques: interviews using a structured questionnaire and collection of case studies (verbatim) through in depth interviews with key informants. Preparatory phases included development of the study instrument and orienting enumerators to the study tool and protocol. Data was analysed using frequencies, cross tabulations and trends.

Results: The research findings suggest that: there is rampant Violation of rights of women and girls in Dowa district; male dominance over women, cultural beliefs and practices, women's low income status and illiteracy are major contributing factors**;** there is a higher incidence of child rights violations than VAW. 97.4 % (15,270/15,680) of the informants said that child abuse does occur in their community (homes, schools and farms)**;** Majority of men and women are reluctant to reveal cases of VAW in their families. Only 12.5% **(**1,965/15,680**)** people responded positively to occurrence of women's rights abuses in families and communities; Majority of cases of VAW include: sexual abuse (rape and girl-teacher relationships), financial and social neglect of women, wife battering and killing.

Conclusions: There is rampant Violation of rights of women and girls in Dowa district. VAW is a vulnerability factor to HIV infection among women and girls.

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[9] AAIM

However, the degree of correlation between VAW and HIV has not yet been established.

Recommendations: In order to prevent further HIV transmission among women and girls and enable them live a life of dignity, there is urgent need to: intensify collective civic education in the community on human rights; strengthen legal redress mechanisms; support development interventions focusing on socio-cultural factors, economic empowerment of women and policy advocacy; and conduct a detailed research to adequately understand the nature of the problem of VAW and determine the degree of correlation between violence against women/girls and their vulnerability to HIV infection.

A13. The Role Of Gogos (Grand Parents) In Mobilizing Pregnant Women To Go For HIV Test In Order To Reduce Mother-To-Child Transmission.

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ISSUE: Limited access to prevention of mother-to-child transmission (PMTCT) services because of cultural barriers and traditional beliefs around pregnancy.

DESCRIPTION: In May 2003, Ekwendeni Mission Hospital introduced PMTCT programme. Weekly PMTCT motivation talks were given to all pregnant women attending antenatal care services. Counseling and testing services using rapid tests were performed immediately. However, it was observed that few women were opting in for HIV test.

In an effort to increase the number of pregnant women coming forward for HIV test in the community, the gogos (grand parents) who are the chief custodians of the culture in the villages were incorporated and trained in community mobilization. Among the issues that were discussed included basic facts of HIV/AIDS and traditional beliefs as well as culture that enhances the transmission of HIV such as polygamy and wife inheritance.

LESSONS LEARNED: The result of involving gogos has proved to be an excellent idea and has seen an overwhelming response of pregnant women coming forward openly for HIV test because gogos can influence any culture and decide for pregnant women to go for HIV test or not.

Between July 2003 and December 2006, a total of 4,000 pregnant women have been tested for HIV around Ekwendeni and Enukweni catchment areas with a reference population of 100,000. Twenty-three babies were tested at 18 months for HIV and 19 of them became negative. Two father and mother support groups have been established. These groups have been openly propagating for HIV test in the community.

RECOMMENDATIONS: The involvement and participation of the gogos in PMTCT programme is an excellent opportunity for breaking down the cultural barriers which influence the transmission of HIV from mother-to-child.

A14. Community Support Is Associated With Better Antiretroviral Treatment Outcomes In A Resource-Limited Rural District In Malawi[10]

R. Zachariah, R. Teck, L. Buhendwa, M. Fitzgerald, S. Labana, C. Chinji, P. Humblet, A.D. Harries,

BACKGROUND: Thyolo district is a rural region in southern Malawi where Medecins sans Frontieres (MSF), an international medical non-governmental organization, has been working closely with the Ministry of Health (MOH) in implementing HIV/AIDS related
interventions. The MSF project, which was launched in 1999, involves the development of a comprehensive package of activities, including community involvement in care
and support

OBJECTIVES: A study was carried in a rural district in Malawi among HIV-positive individuals placed on antiretroviral treatment (ART) in order to verify if community support influences ART outcomes.

METHODS: Standardized ART outcomes in areas of the district with and without community support were compared. Between April 2003 (when ART was started) and December 2004 a total of 1634 individuals had been placed on ART. Eight hundred and ninety-five (55%) individuals were offered community support, while 739 received no such support. For all patients placed on ART with and without community support, those who were alive and continuing ART were 96 and 76%, respectively ($P < 0.001$); death was 3.5 and 15.5% ($P < 0.001$); loss to follow-up was 0.1 and 5.2% ($P < 0.001$); and stopped ART was 0.8 and 3.3% ($P < 0.001$). The relative risks (with 95% CI) for alive and on ART [1.26 (1.21—1.32)], death [0.22 (0.15—0.33)], loss to follow-up [0.02 (0—0.12)] and stopped ART [0.23 (0.08—0.54)] were all significantly better in those offered community support ($P < 0.001$).

CONCLUSIONS: Community support is associated with a considerably lower death rate and better overall ART outcomes. The community might be an unrecognized and largely 'unexploited resource' that could play an important contributory role in countries desperately trying to scale up ART with limited resources.

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[10] Transactions of the Royal Society of Tropical Medicine and Hygiene (2007) **101**, 79—84

A15. Beliefs And Social Norms Surrounding Abstinence, Hiv Transmission And Condom Use Among The Youth Aged 10-24 Years

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Background

A qualitative study was commissioned by PSI/Malawi's Youth Alert! Programme to find out more about the social norms and beliefs that impact on abstinence and condom use among youth.

Methodology

Focus group discussions were conducted among youth aged 10-24 in districts across the country. The groups were divided into those who have had sex and those who have never had sex. Sex and age of participants were also considered when dividing the groups.

Results

Abstinence was viewed by most as the best way of preventing HIV. However it was reported that it is hard to abstain because one cannot control sexual feelings. Findings also show that that there is extensive peer pressure to have sex, girls give in quickly to pressure from boys to have sex to save relationships, and it is fashionable to have sexual relationships. The findings further show that parents rarely discuss sex and sexuality with their children, yet young people would like to get this information from them.

It came out strongly that condoms are not viewed by most as "perfect". Participants expressed beliefs that condoms cause sores and cancer, can get lost inside the vagina, the lubricant kills sperm and this reduces sexual pleasure, boys may become infertile if they use condoms, and that condoms encourage sex. It also came out that girls are regarded as promiscuous if they carry condoms, while boys are regarded as "real men" if seen with one. This was reported as a reason why girls expect men to buy and carry condoms.

Conclusion and recommendations

Youth Alert! should continue to focus on promoting Self Efficiency (confidence, independent thinking, and decision-making ability) to improve attitudes towards abstinence. *Youth Alert!* should seek to change Social Norms related to parent-child relationships in order to promote more open dialogue about sexuality. Youth Alert! should change Social Norms around peer pressure and teach assertiveness and value setting for girls to help them say no to sex.

Youth Alert should continue addressing the Myths and Beliefs on condoms. Youth Alert! should change Social Norms related to the purchase and carrying of condoms by young sexually active females, as well as promote Self Efficacy to purchase and propose condom use (as a healthy and smart choice especially for young sexually active women).

A16. Does Patient Support Group Activities Promote Long Term Adherence To Highly Active Antiretroviral Therapy (HAART) For HIV/AIDS Patients In A Rural District In Malawi?

V. Chikafa, D. Bwirire, M. Massaquoi, .N. Alide

INTRODUCTION

People living with HIV/AIDS are required to achieve high levels of adherence in order to benefit from highly active antiretroviral therapy (HAART). Studies from developed countries have shown how poor adherence can lead ineffective treatment and subsequently leads to treatment resistance. This is a critical issue for people living with HIV/AIDS and their health both from quality of life and the negative socio-economic impact can not be overemphasized.

OBJECTIVES

To describe how patient support group activities and patient education promote long term adherence to HAART.

METHODOLOGY

In 2003, MSF-Belgium in collaboration with Thyolo District Health Management Team started to initiate eligible patients on HAART as part of the National scale-up plan. All patients on HAART were encouraged to register with support groups and to attend support groups meetings monthly. From each support group, one patient/member underwent a 3-day training on adherence. The trained members were promoting maximum adherence to HAART during support groups meetings while other patients were encouraged to share their experiences and challenges of living with HIV and taking HAART lifelong. Patients who missed these meetings or other appointments at the HAART clinics were considered at risk of defaulting and were therefore traced by community volunteers or by patients support groups members.

RESULTS

Between April 2003 and March 2007, a total of 8171 patients started HAART in the district, 5769 adults and 516 children are alive and on HAART. Of these 4400 adults and 50 children including their guardians are registered under 44 adult and 3 children ARV support groups. Other standardised treatment outcomes are better including > 95% adherence rate among patients receiving support from support group activities.

CONCLUSION

In resource-limited settings, patient support groups strategy to promote long term adherence alongside self-report and pill count is the way forward as they improve adherence to HAART**.**

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A17. Microbicides: New Hope For Prevention Of HIV And Other Sexually Transmitted Infections

Zulu Fatima.G

Background
In 2006, UNAIDS reported that 63% of all persons with HIV were in sub-Sahara Africa (24.7million). About 2.8 m adults and children became infected globally and more than 75% occurred in the region and 72% of all global AIDS deaths have been in Africa. Across Africa, women are more likely than men to be infected with HIV. 53% of the HIV infections are among women of reproductive age and directly result into over 90% of the 600,000 new HIV infections in young children every year. Low socioeconomic status and cultural factors in Africa substantially increase the risk of HIV infection among women. Currently no effective or readily acceptable HIV preventive methods are available to women. Male condoms are effective but women lack control over their use. Female condoms are too expensive and not readily acceptable by male partners. The dominance of male partners on sexual issues is a major factor for increased risk of HIV infection of women. There is an urgent need for new effective HIV preventive methods for women in Africa where incidence of HIV is high. These methods must be effective accessible, affordable, and easy to use for women.

Aim: To discuss the rationale, merit and progress toward developing microbicides as empowerment tool for women to protect themselves against HIV infection.

Methods We describe the term microbicide and other terms as used in their research and development of these products. We discuss why Microbicide are important as potential HIV prevention. Briefly we review the current pipeline of candidate Microbicide products, the changes in their design and mode of action. We present a briefly review on the status of selected previous and current clinical trial on Microbicides. The implication of these results from some of completed clinical trials on the future of Microbicide trial is then discussed. Finally, we explore the role of communities in high HIV prevalence areas and the possible implication of an effective microbicides becoming available for women.

Conclusion An effective microbicides would provide women with their rights to protect themselves against HIV infection. Preventing HIV among women would provide exponential gains against the epidemic. An HIV infection averted in a woman of reproductive age is likely to result in averting perinatal HIV infection. However, this requires concerted efforts from scientist, communities, governments, the private sector donors and NGOs,

A18. Lessons From Implementation Of Routine HIV Testing Through "Opt Out Strategy" In Sti Clinic At Kamuzu Central Hospital

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Background

There is overwhelming evidence that sexually transmitted infections (STIs) are a high risk factor for HIV acquisition and transmission in Malawi, regardless of the fact that the HIV testing policy supports routine testing for the vulnerable groups such as STI patients, HIV testing of STI patients in STI Clinics is not widely implemented. Over the 18 months we have introduced an HTC service in the KCH STI clinic and have gone from implementing an opt-in strategy to an opt-out strategy in providing this service. We intend to share practical challenges and learning points acquired in rolling out this strategy.

Method

Since July 2006 all clients seeking STI care in Kamuzu Central Hospital STI Unit (KSU) are offered HIV testing as part of their care using "Opt-Out Strategy". The service starts with a general sensitization followed by short individual opt out in exam room and then detailed post test counseling was adopted in the clinic. Since the introduction of HTC services we have monitored the number of clients accepting HIV testing and have evaluated strategies used in implementation of the service.

Results

Between September 2005 and March 2007, a total of 18545 patients/visits were seen in the KSU Clinic. The number of patients reporting for the first time for a particular syndrome was 9374. The monthly uptake of HIV testing using the traditional VCT approach (opt in strategy) was between 15 % to 37 % for all new patients. With the "opt out strategy" from July 2006, uptake of HIV testing rose from 40 % to over 60 % by March 2007. The HIV prevalence remained at about 30% during opt-in strategy and opt-out strategy periods. During this implementation period we also made the following observations:

- Mere emphasis on the risk of HIV acquisition by STI patients did not necessarily increase uptake of testing.
- Messages of direct health benefits of HIV testing and referral support for specialized care are more appealing to clients in STI clinic to go for testing.
- When implementing an opt strategy in STI clinic there is need to tread carefully so the clients feel their rights are preserved.

Conclusion

It is possible to offer routine HIV testing in a busy specialized clinic using an opt-out strategy. Although HIV prevalence did not change during the two periods a lot more individuals got to know their HIV status using the opt-out strategy and hopefully this influenced their sexual behavior.

Recommendation

It is imperative that HTC be incorporated into all clinics providing services to persons at increased HIV risk since this is possible.

A19 Implications of Traditional Vaginal Practices on Microbicide Acceptability

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Introduction: Culturally, use of traditional herbs or vaginal cleaning practices are purportedly sanctioned in most women in Malawi to improve their partners sexual pleasure. With this in mind, women tend to come up with strategies of guarding their sexual territories through the use of traditional herbs to improve their partners' sexual pleasure since it is generally understood that it's the man's sexual pleasure that is important. It is therefore imperative to understand more about women's traditional vaginal practices and whether product attribute facilitate or impede the sexual pleasure of one or both partners and in turn influence the product's acceptability.

Method: This paper presents data from microbicide acceptability ancillary study to HPTN 035 clinical trial in Malawi. A series of qualitative interviews and focus group discussions were conducted with trial participants, trial ineligibles and refusers, male partners to trial participants, health professions and some major stakeholders. Data was analyzed using Nvivo.

Results: (1) Covert use of traditional medicines by most women in Malawi for the purpose of vaginal cleansing and drying including tightening of the vagina to improve sexual pleasure. (2) Gel increase the wetness of the vagina hence reducing sexual pleasure though some report increase sexual pleasure. (3) Women believe use of gel makes men feel as if their wives had other sexual encounters with other men (infidelity)

Conclusion: Since women do already use traditional medicines covertly, they would also be compelled to use the gel covertly. On the other hand, women's belief on use of gel over their partners would seriously affect its acceptability since they wouldn't want to be associated with infidelity.

Recommendations: Key component for microbicides acceptability would be to develop Public Health interventions towards improvement of couple communication that would promote acceptability of topical microbicides.

A20. Intervention To Prevent Early Mortality In ART Patients: A Pilot Study Of Home Based Care, Guardian Education, And Nutritional Supplementation.

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Introduction: Early mortality among patients initiating ART is high in the Malawi government program. Predictors for early mortality include low CD4 count at baseline, low BMI, poor performance ability, and anemia. Mortality for this subset can reach 50%. Among such high risk patients, we conducted a pilot study of nutritional supplementation, routine home based care and intensive opportunistic infection (OI) screening.

Methods: HIV +, high risk patients (BMI<18, CD4<50, Hb<10 or Karnovsky score<70) living the Lighthouse Home Based care catchment area were recruited. Initial interventions include OI screening (Chest x-ray, cryptococcal antigen) and safety labs. Once starting ART, patients were visited daily by a home based care volunteer, weekly by a Home based care nurse and/or clinician and as needed in the clinic. Patients received likuni phala or plumpy nut nutrition supplementation. Patients were followed for 6 months.

Results: 28 patients were recruited (17 female, 11 male). Medan CD4 was 19[IQR 6-62], mean hemoglobin was 7.85, mean BMI 17 [IQR 16-18]. Despite interventions, 14 patients died during the 6 month follow-up, 3 transferred to other clinic, 1 withdrew the study. 10 patients completed the 6 months study. However, 3 died just after completion of the study and at one year, 7 patients remained alive and on treatment. Causes of death included cryptococcal meningitis (6), PulmonaryTuberculosis (2), Anemia (2),TB meningitis (1), Kaposi Sarcoma (1), Unclear CNS disorder (1), unknown (4). Drug related toxicity was high with 3 hepatitis cases due to nevirapine and 1 due to Efavirenz. At 6months, among survivors, 90% (9/10) had HIVRNA<400copies.

Recommendations: Despite intensive efforts, we were unable to reduce mortality is this cohort of severe AIDS patients. Among these cases, intensive investigators for treatable OIs should be a component of patient management. Inpatient management might be required initially in this high risk group to reduce mortality.

A21 Implications of Covert Use on Topical Microbicides Acceptability

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Background

It is critical to understand the range of factors that influence microbicide acceptability and use. Information collected during a microbicides clinical trial can provide much-needed information for future messages to encourage microbicide use, when efficacy has been established. Social science studies are currently under way to explore a wide range of important issues that are expected to influence acceptability and use of microbicides.

Methods:

Since March 2006 we have been conducting a microbicide acceptability study among women enrolled in a multi-site, randomized, double blind, Phase II/IIb microbicide clinical trial in Lilongwe, Malawi. A qualitative design with in-depth interviews and focus group discussions were conducted with trial participants, trial ineligibles, refusers, male partners to trial participants, health professions and stakeholders. Data were analyzed using Nvivo.

Results

Majority of trial participants confirmed having told their partners of microbicides use since most decisions regarding sex originate from the male partners. Some few women, Health Professions and Community Stakeholders did talk about potential for secret use.

Most partners agreed on the need to be informed of microbicides use arguing that its covert use would bring problems in their families.

Conclusions

For many women/according to the dominant norm, there's requirement of informing partner of microbicides prior to its use associating secret use to sexual infidelity and erosion of male authority.

Recommendations

Need to change/adopt some/new forms of the communication norms between couples on issues of HIV prevention and risks including sex to facilitate microbicides acceptability and use

A22. Correlates Of Hiv Testing In Southern Region Of Malawi[11]

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HIV testing is increasingly recognised as a central component of public health efforts to reduce the spread of HIV. At the individual level, knowledge of HIV status may lead to receiving education and treatment. The public health benefit is that individuals who test positive may take adequate care to protect their partners or start treatment that reduces the efficiency of HIV transmission. The importance of voluntary counseling and testing (VCT) in HIV care and prevention and the fact that the majority of the people are unwilling to test call for a rigorous research on correlates of HIV testing. This study therefore investigates correlates of HIV testing. We interviewed 500 randomly selected subjects in Mulanje and Chiladzulu districts.

The main result is that adequate knowledge about the benefits of VCT increases the probability of HIV testing. High likelihood of current HIV infection reduces the probability of HIV testing. Consistent condom use reduces the probability of testing. Consistent condom use may reduce the probability of HIV testing because condom users may perceive themselves as having a lower chance of HIV infection compared to inconsistent condom users. This assertion is in line with non-testers' most popular reason that they did not test because they did not suspect that they were infected with HIV.

Given these results, the HIV/AIDS education campaign should teach people about the benefits of HIV testing. Acceptance of VCT can also be enhanced through linking it to primary care, tuberculosis programs and social support networks. Furthermore, people should be taught that HIV testing is beneficial to both HIV positive (secondary prevention) and negative individuals (primary prevention). Finally, the HIV/AIDS campaign should place emphasis on the fact that individuals who consistently and properly use condoms have a lower chance of contracting HIV infection. Therefore they should feel more comfortable to test.

[11] This paper is one of the three stand-alone papers in my PhD thesis.

A23. The Impact Of Hiv In Northern Malawi In The Era Of Antiretroviral Therapy

AM Molesworth, V Mwinuka, S Malema, L Kachiwanda, E Mwaiyeghele, N French.

BACKGROUND: The introduction of antiretroviral therapy (ART) is essential if life expectancy and quality are to be improved for people living with HIV. However, its consequences for preventing new HIV infections, and reversing the adverse socio-demographic impact of disease, are unclear.

OBJECTIVES: To measure changes in the numbers of new HIV infections and assess the impact of ARTs on death rates and illness, and on families and the wider community in the south of Karonga District.

METHODOLOGY: This study will take place over the next 4 years. It will involve the continuous registration of births and deaths, with an annual recensus and socio-economic update. The annual recensus and update will be combined with home-based voluntary counselling and whole-blood-rapid-testing for HIV in adults, at baseline and after 4 years, with annual testing in between for age-groups at greatest risk.

RESULTS: Approximately 32,500 people live within the study area; with 10% of all adults thought to be living with HIV, and 1% newly infected each year. One in five HIV positive individuals needs treatment at the present time. A pilot HIV survey was completed in the CRS area in August 2006. This used home-based voluntary HIV counselling, with laboratory testing to estimate the burden of HIV in adults 18-59 years; participation was high, with over 70% of adults accepting testing, and almost all wanting to know their result.

CONCLUSIONS: These data will be used assess the impact of HIV/ART and to estimate future HIV trends and disease burden This work will provide information that can be used to help plan national ARV delivery programmes, and maximise the public health benefits associated with HIV control.

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A.24 How Well Do Rural Malawians Understand The Epidemiology Of HIV?

Susan Watkins, University of Pennsylvania

Objectives and Scope: Most research on what rural Malawians know or do not know about the epidemiology of HIV is taken from surveys such as the DHS. Yet this may be quite different from what they say when they talk informally about someone who is sick, and why. Thus, in this paper we examine local understandings and misunderstandings of the epidemiology of HIV as people confront HIV in their daily lives rather than on a survey.

Data and Methods: We draw from a rich set of ethnographic field journals collected between 1999 and the present in conjunction with the Malawi Diffusion and Ideational Change Project (MDICP), a longitudinal study in three sites, Balaka, Mchinji and Rumphi. A small number of Form 4 graduates living in the three sites were asked to simply listen to public conversations as they went about their daily duties, for example going to the market or at the borehole, and to make notes of these conversations when they returned to their home. Their notes were written in English in ordinary school notebooks, and sent to the author. There are now approximately 700 ethnographic field journals, each about 12 single-spaced typed pages.

Results: Rural Malawians often diagnose the cause of the sickness or death of a friend, relative or neighbor. In these "social autopsies", they pool their knowledge of the individual and his/her life. They typically begin with the physical symptoms (e.g. weight loss, sores on the skin, TB). Since they know, however, that AIDS takes many forms and they do not want to make a false diagnosis, they also provide information on the sexual history of the individual, to see if it is consistent with a diagnosis of AIDS. When a diagnosis of AIDS is reached, typically a moral lesson is drawn: they point to behavior that should be avoided. Interestingly, in these social autopsies, non-sexual modes of transmission are rarely mentioned: although people may report on surveys that mosquitoes could transmit HIV, in practice this is not taken seriously. Thus, these sorts of misconceptions are not important. There are two major misconceptions, however, that are important because they may affect their choice of a marital partner and their willingness to be tested. Rural Malawians do not fully appreciate that many years pass between infection and symptoms; thus, if a widow of a man who died from AIDS has no symptoms in the next few years, she is considered to be HIV negative. Rural Malawians also overestimate the transmission probabilities of HIV. They assume, for example, that after a single act of unprotected intercourse with a bar girl they are likely to be infected, and thus may be reluctant to seek VCT.

Conclusions: Rural Malawians understand that the risk of HIV comes primarily from sexual behavior. They do, however, hold two important misconceptions: 1) they overestimate the transmission probability of HIV and 2) they underestimate the duration of time from infection to symptoms. These misconceptions may lead them to assume a potential sexual partner is HIV free when they are not, or vice versa.

Recommendations: That correct information on these two issues be disseminated.

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A.25 Male Circumcision And HIV Infection In Rural Malawi

M. Poulin and A. Muula

Objective and Scope: Randomized control experiments in South Africa, Kenya and Uganda confirm the biological basis of male circumcision on reducing risk of HIV acquisition for men. Yet findings from both the Malawi DHS and the Malawi Diffusion and Ideational Change Project (MDICP) show an interesting anomaly; at the aggregate level, the region with the highest HIV prevalence is also where most men are circumcised. In this paper, we examine whether the relationship between circumcision and HIV prevalence differs at the individual level.

Methodology: This paper examines the relationship between male circumcision and HIV infection for a sample of women and men in three rural districts (Mchinji, Rumphi, Balaka). Our findings come from the MDICP survey and HIV biomarker data from 2004. We use probit regression to examine correlates of HIV prevalence at the macro-level (across regions), but also within the southern district of Balaka, where most men are circumcised.

Results: In the aggregate, the district with the highest HIV prevalence (8.6%), Balaka, is also where most husbands (80%) are circumcised. The results are different, however, when we examine individuals within Balaka. In particular, it appears that male circumcision is protective of women: women married to circumcised men are an average of 8% less likely to be HIV positive. For men, however, we find no association between infection and circumcision. We further observe variation in sexual and marriage behavior across the regions of the country, possibly (but not conclusively) superceding the protective effect of male circumcision.

Conclusions: The MDICP district where male circumcision rate is highest also has the highest rate of HIV. However, within this district (Balaka) and for women, being married to a man who is circumcised appears to be protective. For men we find a puzzling absence of an association circumcision HIV.

Recommendations: The findings from this research are expected to have important policy implications, especially its attempt to identify correlates of HIV prevalence in a population that can not be explained by circumcision alone.

Study Period: 2001-2006

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A.26 HIV Incidence and Learning One's HIV Status: Evidence From Repeat Population-based Voluntary Counseling and Testing in Rural Malawi

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Objective: To examine the effect of VCT on subsequent behavior (divorce and HIV incidence) in rural Malawi.

Methods: Behavioral and biomarker data were collected from approximately 3000 adult respondents in three sites (South, Center, North) in a panel household survey (2004 and 2006). In 2004, oral swab specimens were collected and analyzed using enzyme-linked immunosorbent assay and confirmatory Western blot tests while finger-prick rapid testing was done in 2006. We use cross-tabulations with chi-square tests to determine the statistical significance of differences in acceptance of repeat VCT and in HIV incidence per 100 person-years (PY).

Results: The uptake of VCT (over 90%) was robust to variation in testing protocols. Among those who tested positive in 2004, 10% of those who did not obtain their test results had divorced or separated by 2006 compared to only 4% of those who did (χ^2=2.5; p=0.117). Incidence for this rural sample was 0.6/100-PY and was significantly higher among those formerly married (3.2/100-PY) than those currently (0.6/100-PY) or never married (0.0/100-PY), among those who had any sexually transmitted infection in 2004 (3.7/100-PY) than those who had not (0.5/100-PY), in the South (1.3/100-PY) than in the North (0.4/100-PY) or Center (0.3/100-PY), and among those who were negative in 2004 but who did not receive their test results (1.1/100-PY) than those who received their test results (0.5/100-PY).

Conclusion: Learning that one is HIV negative may be a key factor for effective HIV prevention and behavior change.

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A.27 Full title Women Self-Perception of Autonomy and HIV/AIDS-Related Behaviors in the Context of the HIV/AIDS Epidemic

Kim Deslandes, Department of demography, Université de Montréal

Objectives and scope: It has long been assumed that rural women in Malawi do not have sufficient autonomy to affect their responses to the AIDS epidemic. There is, however, little systematic evidence to support this assumption. Thus, the main goal of this paper is to evaluate the extent to which women perceive that they have autonomy, and how this is related to their AIDS-related awareness and behaviors.

Data and Methods: Data from the 2006 wave of the Malawi Diffusion and Ideational Change Project (MDICP), a longitudinal survey on the role of social networks regarding HIV/AIDS, family size, and family planning in rural Malawi, is used. The sample consists of all currently married women in a monogamous union. AIDS awareness and behaviors were restricted to the three most widespread ways of protection: abstinence, faithfulness to spouse, and condom use. Five separate indexes were constructed to represent women's self-perception of autonomy: geographic mobility, acceptability of divorce, wife beating, negotiation of safer sex, and forced sex. Descriptive and multivariate regression analyses are used to estimate the association between the perception of autonomy and AIDS awareness and behaviors.

Results: Preliminary analyses show that there is a statistically significant association between women's perceived autonomy and their AIDS awareness and behaviors. Particularly interesting is that the more autonomous the woman perceives herself to be the more likely she is to report that she is able to negotiate safe sex and the more likely she is to have used condoms with her current partner.

Conclusions: Many women of rural Malawi do perceive themselves as having enough autonomy to protect themselves within their marital union. In addition, self-perception of autonomy influences women's AIDS awareness and their protective behaviours.

Recommendations: Future prevention activities should dwell on strategies married women have already developed in response to HIV, such that interventions can be more precisely targeted to areas where women need support.

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A.28 Religious Messages and Influences on the ABCs of HIV Prevention

Jenny Trinitapoli, S. Lungo, M. Manda, J. Phiri, C. Singan

Objectives and scope This study examines the relationship between religion and HIV-risk behaviors in rural Malawi, giving special attention to the role of religious congregations, the organizations with which rural Africans have most immediate contact. The first aim is descriptive – to identify overall patterns and variations in what religious leaders in rural Malawi teach about HIV and about sexual behavior in light of the epidemic. The second aim is to assess how religious organizations impact the behavior of individual members.

Data and Methods: Two sources of data are used. First, the data on sexual behavior, religious denomination and religious participation are drawn from a survey of approximately 4000 respondents conducted by the Malawi Diffusion and Ideational Change (MDICP). Second, the Malawi Religion Project provides information on the characteristics of all the religious congregations attended by the MDICP respondents (for example, their doctrines, their strictness). Muiltilevel regression models are used to estimate the associations between the characteristics of congregations and the reported risk behaviors of individuals.

Results/Lessons learnt: Three outcomes are examined; these correspond with the ABCs of HIV prevention are examined: abstinence (for the unmarried), fidelity (for the married), and condom use. There is a statistically significant negative association between congregational strictness and risky sexual behavior: the stricter the congregation, the less risky behavior. This suggests that religious congregations are, indeed, an important force in AIDS-related behavior change.

Conclusions: Many religious leaders in rural Malawi are taking an active and effective role in promoting HIV prevention. Their approaches, however, differ from those promoted in AIDS education workshops. It is thus important to learn more about what religious leaders are doing in response to AIDS and about the characteristics of religious congregations.

Recommendations: It does not appear to be necessary to provide support or training for l;ocal religious leaders; rather, it is likely that groups involved in HIV prevention can learn from the approaches of the various denominations.

Track A: Prevention

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A.29 Organisational And Cultural Obstacles To Male Circumcision As A Prevention Intervention

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Background: The powerful protective effect of male circumcision on female-to-male HIV transmission in three randomised controlled trials (50-60% in Auvert et al 2005; Bailey et al 2007; Gray et al 2007) challenges Malawi and other AIDS-affected countries to explore international donors' reluctance to sponsor male circumcision.

Objectives and Scope: This study explores the political, institutional, and cultural barriers that have made international organisations and donors slow to embrace male circumcision as a prevention intervention.

Methodology: Archival research and interviews with AIDS researchers and international agency staff provide data on motives and interests. Comparison of support for VCT, condoms, STI treatment, and behavior change clarifies sources of resistance to male circumcision.

Results: Two clusters of factors influence global responses to male circumcision for HIV-prevention: 1) Organizational and political factors: Absence of pre-existing international organizations committed to providing male circumcision (in contrast, family planning organizations had extensive experience promoting condoms and behavior-change). Activist anti-circumcision organisations (such as NOCIRC in the US) made male circumcision controversial. 2) Cultural factors: European and North American cultural assumptions emphasize individual "control" over risk behaviors. International agencies have expressed worry over possible "disinhibition", increasing risky sexual behavior. International agencies also fear offending African cultural sensibilities linked to ethnic identity and religion. Despite its proven effectiveness in reducing HIV transmission, male circumcision may simply not inspire donors' moral imaginations, as combating stigma, empowering women, or teaching individuals to protect themselves clearly do.

Conclusions: Which HIV prevention interventions donors favor has less to do with scientific evidence than with organizational, political, and cultural factors.

Recommendations: Malawi and other AIDS-affected countries should set their own priorities for HIV-prevention, independent of the cultural assumptions of donors and international agencies.

A.30 Tiwoloke HIV/Aids Behaviour Change Initiative For Primary School Teachers: A Baseline Survey.

Dr. chimombo joseph p.g.

Objectives: The baseline study was commissioned to establish the following:

- To ascertain the vulnerability of primary school teachers to HIV/AIDS pandemic.
- To identify knowledge and skills gaps among primary school teachers necessary to reduce vulnerability to HIV/AIDS and promote healthy lives.
- To identify prevailing behaviour that qualifies teachers as a key social group requiring immediate attention.
- To determine appropriate and effective activities currently in place to address HIV/AIDS prevention, care and support among teachers.
- To assess HIV/AAIDS programming capacity within the Ministry of Education at district and zone level.

Methodology

The study used both quantitative and qualitative data collections methods to inform future assessments and evaluation of the progress and impact of the project and used the following tools for data collection:

- Document analysis.
- Questionnaires (pupil, teacher, headteacher)
- Key informant interview guide

To make the sample representative, the baseline survey covered all the six Divisions in the country. A total of 12 districts (two districts from each division) were sampled. Four primary schools were selected from each district on the basis of their level of prevalence of HIV. A total of 960 pupils responded to the pupil questionnaire and 402 teachers responded to the teacher questionnaire. At each school, members of the SMC were used as the key informants.

Results

The evidence was unanimous that teachers are at very high risk of contracting the HIV. There were many factors that were associated with this. Only 53 percent of the teachers have had an in-service course on HIV and AIDS. More male teachers (58%) than female teachers (47%) have had an in-service course on HIV and AIDS and only 35 percent of teachers had an HIV test. Teachers did not seem to have been adequately equipped with the necessary knowledge and skills to face the challenges of the HIV and AIDS pandemic. First, teachers drink beer heavily and end up in promiscuous acts, they take part in community social and cultural activities and the combination of low salaries as well as delayed salary payment make their position (especially women teachers) very vulnerable. Interviews with key informants stressed that people must be able to have access to the essential services otherwise; they did not see why they should go for a test if they will not be provided with the necessary support. Thus, there are not many activities that are in place to combat the pandemic largely because the programming capacity of the Ministry of Education is very low. Consequently, the pandemic is having a very devastating effect on the education system.

Recommendations

Teachers need a lot of sensitizations about the issues around the pandemic and indeed about how they can face the challenges of their lives. This should be on a continuous basis. There is also need for Government to hasten the training of additional teachers to make sure that schools are properly staffed. The Ministry of Education needs to urgently act otherwise, teachers will not see any need to respond to our calls for positive behaviour towards the HIV and AIDS pandemic if there is no support. Urgently needed here is a deliberate effort that target teachers as a social group that requires immediate attention. Schools are already operating under very difficult conditions as a result of the HIV and AIDS epidemic.

A.31 Authors: *Olivia Jerenje and Maxwell Chiundu*

Objectives

This study investigated the integration of Voluntary Counselling and Confidential Testing (VCCT) services at Lunzu BLM clinic. Specifically, the study documented Lunzu VCCT accomplishments and identified areas within the system that needed improvement in order for BLM to effectively integrate the VCCT services into the remaining BLM clinics.

Methodology

Retrospective data was collected from VCCT monthly report forms. Focus Group Discussions (FGDs) and semi-structured interviews were also conducted. The FGDs were conducted with the people around Lunzu area. In order to ensure openness among the FGD respondents, same sex interviews were conducted. Semi-structured interviews were conducted with VCCT counsellors from BLM, DAPP Hope Centre, Mlambe Mission Hospital and clinicians from private clinics.

Consenting clients posing as "mystery clients" assessed the quality of VCCT service at Lunzu clinic. The mystery clients used a Dictaphone to record their counselling sessions. In addition to their normal counselling procedures, the mystery clients also asked some questions related to other BLM services to assess the counsellor's approach to ISRHP.

Results

The study revealed strengths and challenges of the provision of VCCT services along with other Sexual Reproductive Health (SRH) services. The greatest strength revealed by this study is that BLM has capacity to provide a range of integrated services such as family planning (FP), under-five clinic services, treatment of opportunistic infections (OIs) and sexually transmitted infections (STIs). Therefore, adding VCCT services would not affect the provision of its other services but would rather offer a wide range of services to its clients.

Since its inception in October 2004, Lunzu VCCT centre has reach out to 189 clients of which 51 were female and 138 male representing 27% and 73% of the people accessing the VCCT services, respectively. Most VCT clients are youths in the age bracket of 15-24. BLM has a reputation of offering quality services, youth friendly and respect for peoples' privacy hence the people find it more appropriate to go for BLM VCCT services than going to the other VCCT centres. All the respondents expressed satisfaction on the quality of the VCT services being offered a Lunzu BLM clinic.

On the other hand, as a challenge, clients would not be able to access the different services because people are afraid of stigma from their families, friends and other members of the community. In addition, it was found that women who form a large percentage of BLM's clientele, would not be able to access the VCCT services without getting the husbands' consent.

Conclusion

The integration of VCT and other services is working well. BLM has the capacity to provide the integrated sexual reproductive health services because it already has existing physical structures and personnel to provide the VCT services.

Key recommendations

1. BLM should enhance community education and mobilisation as this would help to increase awareness of the benefits of VCCT and help reduce stigma towards people living with HIV & AIDS.
2. BLM should train all the providers at the Centre in VCCT services to minimise internal referrals.

A.32. Impact of the Malawi HIV and AIDS Program

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Key words: impact, mortality, infections averted

Context:
The response to HIV and AIDS is rapidly scaling up in Malawi and considerable resources are being invested in the programme. In 2006 over half of HIV infected people becoming eligible for ART were started on HAART; the costs for ARVs alone will triple from US$ 11 million in 2007 to over US$ 30 million per year by the of the decade. Information on the impact of the HIV programme is not only important for continued programme and policy development but also as an advocacy tool to solicited additional funding.

Approach:
Key stake holders including the National AIDS Commission, Ministry of Health and development partners have developed a plan for prospective research to assess the impact of the HIV programme on the population and its contribution to the Malawi Growth Development Strategy. The research plan considers findings from different research methods in a data synthesis process, and builds on the existing research and data. Malawi has learned that triangulation methodology is a powerful tool to answer these complex questions. Apart from a multi-year research plan to asses the impact of the HIV programmes, a triangulation exercise will be undertaken in May 2007 to provide current answers to the following core questions:
- ARV treatment impact on mortality and morbidity in public health facilities and private companies
- Changes in HIV prevalence and infections averted
- Coverage of the various interventions

Outcomes and challenges:
The development process of the impact research plan will be presented along with the plan itself, including the challenges to engage all stakeholders effectively. Results of the triangulation exercise that took place in June 2007 will be presented.

Key recommendations:
Assessing the impact of the HIV programme is complex and possible only if all stakeholders, including research institutions are willing to share data and are effectively engaged in a participatory, coordinated process.

A.33. Repeat HIV Testing Among VCT Clients In Lilongwe, Malawi

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Background:

With increasing normalization of HIV testing, repeat testing among VCT clients is likely to increase and lead to higher national testing commodity consumption. In order to assess programmatic implications of repeat testing, VCT service data for 2004-2006 from MACRO Lilongwe were reviewed to determine frequency, trends and leading reasons given by clients for repeat testing.

Methods:

Data on VCT clients served at MACRO VCT site in Lilongwe from 2004 to 2006 was analyzed. This site collects anonymous client level data using a standard form that makes it possible to identify new clients, repeat visits, reasons for each visit and HIV test results.

Results:

Of 35,977 clients served over three years, 35,961(99.9%) were tested for HIV and 8,254 (23%) of those tested reported having been tested and given their HIV test results previously. Proportion of repeat testers rose from 17% in 2004 to 23% in 2005 and 26% in 2006. Repeat testing rate was higher among males (23%) than females (21%); p=0.0003. Leading reason for retesting was window period and only 36% of window period re-testers presented for VCT within four months; and by this time1.5% had already seroconverted. Clients retested beyond four months had 3% seroconversion. Clients retested for perceived personal risk had significantly higher serconversion rate than those retested for window period (7% vs. 3%); p<0.001.

Conclusions:

Retesting is progressively increasing among VCT clients and there is a high seconversion rate of 1.5% within window period. Most clients did not seek follow-up testing within the recommended time. Increased retesting for the window period is needed to enhance VCT program effectiveness. Studies are needed to determine reasons for high rates of seroconversion and triggers for risky actions by clients already aware of their seronegative status. Current gender disparities in HIV-risk perception and repeat testing need be studied.

A.34 Parent And Child Communication On Sexual And Reproductive Health Matters In Malawi

Towela Maureen Maleta

Current trends show that 60% of new infections occur among young people thus the family is assumed to be the proper institution to help children develop positive attitudes towards sexual behaviors such as delay of the sexual debut, abstinence, health seeking, family planning, condom use and fidelity. Hence, do parents provide guidance on sexual and reproductive health (SRH) values and choices to their children? In order to understand this, a survey was conducted whose objectives were: (i) to establish whether parents discuss sexual and reproductive health matters with their children; (ii) to identify the content of the discussions; (iii) to determine factors affecting SRH communication. Data was collected in two randomly selected urban locations of Ndirande and Chinyonga in Blantyre in 200-) using self administered questionnaires and focus group discussions with male and female parents of offspring aged between 12 and 24 years. Key findings of the study indicate that most parents arrange sex education for children at puberty. Sex educators vary: from parents to extended family/relatives, traditional camp sites, and parents' friends. Almost three-quarters of the parents admitted to having had SRH discussions with their children in the past twelve months. Overall, parental education and awareness of the severity of HIV risk in young people determines the likelihood of communicating SRH messages with children. General and less obscene SRH topics are more ably discussed than topics that seem to condone sexual relationships. Satisfaction with sex education at puberty, exposure of parents to groups promoting open discussions with young people, and loss of close relatives from AIDS related infections have a catalyst effect of increasing levels of parent-child communication on SRH matters in subsequent discussions. The study recommends recognizing parents as partners in communicating SRH messages to young people as a risk reduction strategy; strengthening awareness of parents' role parent-child SRH communication; and, further research to bridge interventions that facilitate SRH communication between parents and children and foster mutual understanding on the need for this health communication.

A.35 The Potential Of Secondary Information Items In Improving The Knowledge Base About The HIV And Aids In Malawi

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College of Medicine.

There is a lot of on going Social and Medical Research on HIV and AIDS both in Malawi and abroad but the challenge in the Malawian context has always been: To what extent is research information on HIV and AIDS repackaged for the benefit of the general public?. Further to this, is the information channelling model according to HIS conducive to management, retrieval, dissemination and general circulation of secondary information items such repackaged research items to the general public. Are there any challenges on ground?

The papers attempts to answer these question by using research surveys that were done in hospital libraries in Mzuzu, Machinga and Zomba between 2005 and 2006. The critical objectives of these surveys where to establish the functionality of hospital libraries in informing both clinical staff and the public on Health/Medical related issues including HIV and AIDS. Key findings were that the surveyed hospital libraries were inadequately stocked with items relevant for both management and the general public. There also appeared to be no deliberate effort to repackage research information on HIV and AIDS so as to disseminate it through the surveyed secondary information holding centres.

Despite this gloomy picture, Health Information literature suggests that secondary information items have a huge potential in increasing the knowledge base of ordinary people about HIV and AIDS. This paper highlights that potential and generally recommends that both the MOH and NAC should divert its attention towards research into the same.

A.36 Knowledge, Attitude And Practices Of People In Same Sex Relationships In Malawi

Dr P.Ntata, G.Trapence, W. Chibwezo D.Nyadani.

Background : Understanding the sexual behaviours of the populations vulnerable to HIV is an important component in the battle against the AIDS pandemic. Yet policy makers in Africa have often overlooked men who have sex with men (MSM) as vulnerable. This is because of stigmatization and denial of the existence of homosexual behaviour.

However, literature documents both the presence of this population in Africa and the importance of reaching them with HIV/STIs information and services.

MSM plays a significant role in HIV transmission in Africa, but relevant research in Malawi has been lacking. To fill this gap, Centre for the Development of People (CEDEP) conducted a research using a sample of 100 MSM from selected districts in Malawi in November 2007.

Objectives : The survey intended to understand the extent to which MSM are at risk of HIV and identify MSM sexual health needs in order to develop appropriate interventions.

Methodology: The study used qualitative research design, structured questionnaire and snowball-sampling method. The data was analysed using SPSS.

Key Results

-MSM exists in significant numbers.

-Sex with multiple partners is high.

-MSM sexual behaviour has implications on reproductive health of the general population.

-Low consistent use of condoms.

-59 percent of them went for VCT. Only 16.4 percent were asked about homosexuality.

-MSM are vulnerable to stigma, discrimination and violence.

Recommendations.

The results from the research indicate a considerable bearing MSM has on HIV/AIDS.

Therefore, interventions targeting this population are overdue. These could include:

-VCT that is confidential and sensitive to the HIV/STI prevention needs of MSM.

-Peer education on health sexual practices.

-Mapping exercise and HIV/AIDS prevalence study to explore the dynamics of HIV transmission between MSM and the general population.

A.37 Taking Counseling and Testing Services to the people

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BACKGROUND: Malawi AIDS Counseling and Resource Organisation (MACRO) initially in 1992 was in Lilongwe as LACE (Lilongwe AIDS Counseling Education) and in Blantyre as BACE (Blantyre AIDS Counseling Education). MACRO became an NGO in 1995 providing CT and other support services. Mzuzu Branch opened in 2001 June. To increase access, three other branches opened in semi-urban areas of Karonga, Kasungu and Zomba in 2005 June.

OBJECTIVES

- Increasing provision of CT services
- Increasing access to CT services
- Improving quality assurance system

METHODOLOGY: MACRO's Mission Statement is :
To provide quality Counseling and Testing services to individuals, families and communities for behaviour change in order to reduce transmission of HIV and impact of HIV and AIDS

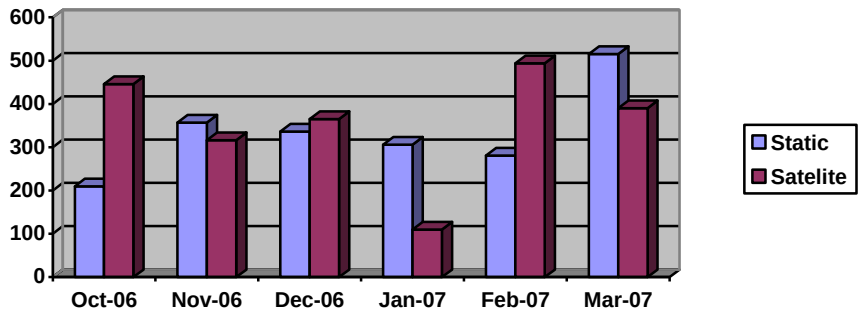
Strategies;

- Provide anonymous and confidential counseling and testing
- Providing behaviour change communication activities
- Imparting behavioural skills to prevent STI/HIV transmission
- Counseling individuals to cope and live positively

TYPES OF SITES

Static and satelite sites are operational at MACRO Karonga. The significance of taking the counseling and testing service to the people is obvious. See bar graph below.

Number of clients achieved at static and satelite



Total : Static = 2 005
Satelite= 2 121

Counseling and Testing is conducted at one (1) static site and eight (8) satellite sites in Karonga district. Before introducing the programme community sensitization is done.

RESULTS :

- From the graph above, there is increased access to CT services by the disadvantaged of distance
- Increased access of CT services by females compared to static sites

RECOMMENDATIONS:

- Satelite counseling and testing programmes should be adopted by Others.
- Support groups especially Post Test Clubs formation in communities where satellites have been conducted needs to be facilitated for referrals
- Conditions allowing camping for some days at satellite sites should be done.

A.38 Strengthening access to ART for eligible pregnant women at Martin Preuss Centre (MPC)

The Lighthouse Group

Objectives and Scope: Initiation of ART in eligible women during pregnancy is a priority. At ANC of Bwaila hospital, University of North Carolina (UNC) runs the country's largest pMTCT programme. MPC is ideally placed to examine linkages between pMTCT and ART.

Methodology: All HIV-infected women at ANC are clinically staged and CD4-counts are obtained. Clinically or immunologically eligible women are immediately referred to initiate ART for PMTCT. Clinical staging is repeated at presentation to the MPC ARV-clinic. Confirmed eligible women are invited to attend the ART education session and initiate ART at their 2nd visit.

Results/Lessons learnt: Between December and April, 99 pregnant and eligible women were referred for ART from ANC. By 31st of May, 67 pregnant and eligible women were registered, and 53 have started ART. 2 had already attended the ART education session, but did not start yet. 12 women came only for their initial registration and were lost to follow up.

Only 36% of the women started within the 1st week after registration. By the end of the 3rd week, 70% have started on ART.

Within the same period, additional 85 women were registered with referral slips from UNC's pMTCT programme. 78 were not pregnant any more, 25 out of 78 were eligible for ART and 18 started on ART finally.

Conclusions: 68% of referred pregnant and eligible women reached MPC, 53% finally started ART at MPC, the majority within 3 weeks after registration. 12% attended only once at MPC without starting and were lost to follow up. A proportion of women were registered after delivery, 32% were eligible for ART.

Recommendations: Referral systems between pMTCT and ART at Bwaila hospital must be strengthened. Operations at MPC need to ensure that women initiate ART without delay. Eligible pregnant women should be included into MPC's "back to care" programme at registration to limit loss to follow up.

A.39 *Group Pre-Test Education for HIV Testing and Counselling; a Time Study at Martin Preuss Centre*

The Lighthouse Group

Objectives and scope: HIV testing and counselling is a key element of Malawi's HIV National Response, providing both an opportunity to promote behavioral change, and an entry point to care and treatment. However, HTC is a labour-intensive process, and further scale-up may be hindered by HR constraints. Group PreTest Education (GPTE) is one possible way to reduce counsellors' workload.

Methodology: The MoH HIV Unit, with partners, developed a standardized approach to GPTE in 2005, and HEU designed a flip-chart to support this approach. Lighthouse designed the Martin Preuss Centre to facilitate GPTE. In March 2007, a short study was conducted to measure the impact of GPTE on the time spent in one-on-one counselling.

Results/Lessons Learnt: In the week of 26th March, 112 clients (53% men, 47% HIV positive) were counselled and tested at MPC. 81 clients (72%) went through GPTE, and 31 (28%) individual pre-test counselling. Average times spent in one-on-one HTC were 31.0 minutes for those pre-test counselled individually, and 26.5 minutes for those passing through GPTE. For HIV positive clients, average times were 31.2 minutes, and for HIV negative clients 24.6 minutes. Average times are reduced by approximately 15% ($p=0.06$).

Conclusions: Group Pre-Test Education can reduce on one-on-one counselling time and increase the potential number of clients seen by a counsellor per day. HIV negative clients take on average at least 5 minutes less counsellor time than HIV positive clients.

Recommendations: Group Pre-Test Education has the potential to increase the efficiency of HTC services. We consider that the GPTE protocol and flip-chart should be incorporated into HTC training, and its use encouraged through routine supervision.

A.40 How Does Learning Hiv Results Affect Condom Purchases? Evidence From A Field Experment

Rebecca L. Thornton, University of Michigan

Background:
One suggested intervention to alleviate the spread of the disease is HIV testing and some have even suggested that voluntary counseling and testing (VCT) is the missing weapon in the battle against AIDS". Under the assumption that HIV testing is an effective prevention strategy, many international organizations and governments have called for increased investments into counseling and testing, requiring large amounts of monetary and human resources.
Objectives and scope:
This paper evaluates an experiment in which individuals in rural Balaka, Rumphi, and Mchinji, Malawi were randomly assigned monetary incentives ranging from zero to 300 Kwacha to learn their HIV results. The results centers were also randomly placed in communities. Two months after HIV results were available, condoms were sold to individuals for a discounted price.
Results
39 percent of the participants attended clinics to learn their HIV status without any incentive. However, even the very smallest incentive increased the share learning their results by 50%. Living over a kilometer from the VCT center reduced learning HIV results by seven percent. HIV positives who learn their status are three times more likely to purchase condoms two month later. However, HIV positives purchase at most two additional condoms. There is no effect among HIV negatives learning they are HIV negative on condom purchases.
Conclusions:
Distance and small financial compensations for time make a big difference in motivating individuals to learn HIV results. Given the high costs of testing, these findings suggest that population-based HIV testing may not be as cost-effective as other prevention strategies.
Recommendations:
VCT policies should target their efforts to high risk groups, rather than overall rural populations. For groups where testing is seen as important – such as high risk groups or pregnant women – small financial compensation can be used effectively as well as mobile clinics.

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TRACK B: TREATMENT, CARE AND SUPPORT

The Track looks at basic clinical research into diagnosis and treatment of HIV-related infections, clinical course of HIV infection, antiretroviral therapy and all aspects medicine, program-linked studies that inform planning and treatment and care models emerging as good practice

B1. Randomized Controlled Trial Comparing The Impact Of Supplementary Feeding With Either Ready-To-Use Food Or Corn-Soy Blend Among Malnourished Anti-Retroviral Therapy Clients In Malawi.

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Rationale: Standard principles of nutritional support in chronic illness suggest that food supplements might hasten recovery and reduce complications. However, direct evidence of these benefits has not been documented for AIDS patients starting antiretroviral therapy (ART). With the advent of simple, programmatic, community-based ART in resource poor sub-Saharan Africa being offered to large numbers of individuals, a study of an effective supplementary feeding sustainable in these operational ART programs is urgently needed.

Objective: Compare the effectiveness of 2 supplementary foods, the ready-to-use therapeutic food (RUTF) and the corn/ soy blend (CSB), given to wasted patients beginning standard first line ART, in improving the nutritional and clinical outcomes after 3.5 months of intervention.

Site: The Queen Elizabeth Central Hospital ART clinic, Blantyre.

Methods:490 wasted (Body mass index [BMI] < 18.5) adults starting ART were randomized to receive isoenergetic amounts of RUTF or CSB as dry rations. Weight, fat free body mass measured by bioelectrical impedance, CD4 count and mortality were measured at monthly clinic visits. The primary outcomes were BMI and fat free body mass, while secondary outcomes were CD4 count and mortality. Outcomes were compared with Student's t-test for continuous parameters and Chi-Square test for dichotomous outcomes.

Results: On enrollment, subjects in the CSB (n=245) and the RUTF (n=245) groups, had similar mean BMI's (16.5±1.5 vs. 16.5±1.4), Fat-free mass % of body composition (94.4±5.4 vs. 94.4±5.0), and mean CD4 Count cells (131±140 cells x 10^6/L vs. 140±162 cells x 10^6/L), After 3.5 months of study participation, patients receiving RUTF had significantly more weight and BMI gains, than patients receiving CSB, 5.6 vs. 4.0kg ($p < 0.01$), and 2.2 vs. 1.7 kg/m^2 ($p < 0.01$), respectively, while the Fat-free mass % of body composition, the Loss of Fat-free body mass % of body composition and the mean CD4 Count cell gains, were not significantly different between the two treatment groups. Mortality was very high in both groups, 27% vs. 23%, respectively (p=0.), and both groups had similar defaulter rates, 9% vs. 7% (p=0.).

Conclusion:

Supplementary feeding with RUTF was associated with increased gain in weight and BMI compared to CSB, but there were no differences in the survival or immune recovery among wasted patients starting ART after 3.5 months of Nutritional intervention.

B2. Psychosocial Support Helps In Stigma Reduction And Promotes Positive Living

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Background:
With USAID funding, Save the Children Umoyo Network supports fifteen NGOs serving two million people of eighteen districts in Malawi. The NGOs provide HIV related services, such as prevention, counseling and testing, prevention of mother to child transmission and palliative care.

Objectives and scope:
To establish and expand counseling and testing sites, provide counseling, testing and on-going psychosocial support services.

Methodology:
Umoyo Network scaled up services from 3 to 123 sites, facilitated training of counselors, and training in psychosocial support and positive living to the NGOs. The NGOs provided HIV counseling and testing using rapid testing, provision of short regimen Nevirapine to all HIV infected mothers and their new born babies, referral of HIV positive clients for staging and ARV provision, management of opportunistic infections and post test support services. Umoyo Network and the NGOs management provided regular technical support for HIV counseling, testing services and post- test support services.

Results:
Increased number of people counseled and tested from 53,000 in 2003 to 111,174 by December 2006. Increased number of people who tested HIV positive joined post – test support groups and there is stigma reduction. NGOs have over 85 post test clubs with 4,887 members, 385 positive living clubs with 24, 662 members, 18 mother support groups and a total number of 120 faith leaders formed a faith leaders network.

Conclusion:
Provision of continuum of care through HIV counseling, testing and on-going psychosocial support is key to positive living by those infected and affected by HIV.

Recommendations:
Organizations and health facilities should help in building the capacity of service providers in continuum of care through counseling, testing and on-going psychosocial support and positive living services at all service delivery sites

B3. Food Supplementation Improves Nutritional Recovery In Malnourished HIV Infected Malawian Adults Starting Antiretroviral Therapy

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Background

The pathophysiology of wasting in HIV infected adults is only partially understood. Food insecurity probably plays an important role in Malawi. Wasting is a strong risk factor for mortality but the value of food supplementation in malnourished African adults starting antiretroviral therapy (ART) has not been studied.

Objectives and methods

To evaluate the effect of food supplementation in wasted Malawian adults starting ART, we compared 191 patients enrolled in a trial of two different food supplements (2006-7) with 110 patients enrolled in a cohort study not providing food supplements (2005-6). All patients were adults, ART naïve, had BMI's < 18.5 and started Triomune® at the ART clinic of Queen Elizabeth Central Hospital, Blantyre. Food supplementation was initiated concurrently with ART. Results after 14 weeks are presented.

Results

At baseline mean age, BMI, CD4 count, percentage severe wasting, and percentages in CD4 strata and WHO clinical stages were similar in both groups. The percentage of females in the intervention group was larger (60% vs. 48%; p=0.03). Mean weight gain (4.9 vs. 3.3 kg; p=0.012) and BMI increase (2.1 vs. 1.2; p=0.003) after 14 weeks was higher in the intervention group. Mortality was very high in both groups (23.2% vs. 18.4%; p=0.34).

Conclusion

Early mortality on ART was high despite food supplementation. Among survivors food supplementation led to significantly better short-term nutritional recovery than no nutritional intervention. Results after longer follow up need to clarify the clinical relevance of these findings as well as the influence of different food supplements.

B4. Promotion Of Nutrition Knowledge And Food Security In Rural Households Affected By HIV In Malawi .

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OBJECTIVES

To prevent nutritional deterioration in home-based care (HBC) clients through improved knowledge of nutrition and food utilisation, plus promotion of food security through low input horticultural methods

SITES

Target areas of FHI's partners in five districts: Dowa, Mangochi, Blantyre, Chikwawa and Nsanje.

METHODS

Nutrition training was conducted over five days for partners and government staff in their districts of operation. The training included basic nutrition, dietary diversity, food availability and preparation, with emphasis on energy/time saving methods, plus malnutrition, nutrition for PLWHA, and remedial use of herbal/ medicinal plants. Soil and plant health, water management and use of local resources for improved crop production in kitchen gardens were covered. Group discussion, cooking sessions and site visits were included to ensure maximum understanding. Partners trained community volunteers, local leaders and HBC caregivers. A simple baseline assessment was conducted using a random sample of HBC households in each district, to be followed by one at six, twelve and eighteen months.

RESULTS

In total, 45 partner staff, 48 government staff and approximately 320 HBC caregivers have been trained in the five districts. The six month assessment is currently underway. Anecdotally, partners report implementation of low input concepts introduced and an enthusiasm amongst households to improve their dietary intake and food preparation.

CONCLUSIONS AND RECOMMENDATIONS

It is too early to conclude that this approach to preventing nutritional deterioration in HBC households is effective. Application of the nutrition knowledge gained, understanding of health benefits and subsequent adoption of low input concepts of food preparation and crop production requires behaviour change in our traditional, rural communities. On-going encouragement and support from our partner community based organisations (CBOs) and government extension staff is essential.

B5. Risk Factors For High Early Mortality In Patients On Antiretroviral Treatment In A Rural District Of Malawi[16].

R. Zachariah, M. Fitzgerald, M. Massaquoi, O. Pasulani, L. Arnould, S. Makombe, A D. Harries

OBJECTIVES: Among adults started on antiretroviral treatment (ART) in a rural district hospital (a) to determine the cumulative proportion of deaths that occur within 3 and 6 months of starting ART, and (b) to identify risk factors that may be associated with such mortality.

DESIGN AND SETTING: A cross-sectional analytical study set in Thyolo district, Malawi.

METHODS: Over a 2-year period (April 2003 to April 2005) mortality within the first
3 and 6 months of starting ART was determined and risk factors were examined.

RESULTS: A total of 1507 individuals (517 men and 990 women), whose median age was 35 years were included in the study. There were a total of 190 (12.6%) deaths on ART of which 116 (61%) occurred within the first 3 months (very early mortality) and 150 (79%) during the first 6 months of initiating ART. Significant risk factors associated with such mortality included WHO stage IV disease, a baseline CD4 cell count under 50 cells/ml and increasing grades of malnutrition. A linear trend in mortality was observed with increasing grades of malnutrition (x^2 for trend =96.1, *P≤0.001*) and decreasing CD4 cell counts (x^2 for trend=72.4, *P≤0.001*). Individuals who were severely malnourished [body mass index (BMI)<16.0 kg/m² had a six times higher risk of dying in the first 3 months than those with a normal nutritional status.

CONCLUSIONS: Among individuals starting ART, the BMI and clinical staging could be important screening tools for use to identify and target individuals who, despite ART, are still at a high risk of early death.

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[16] **AIDS 2006, 20:2355 - 2360**

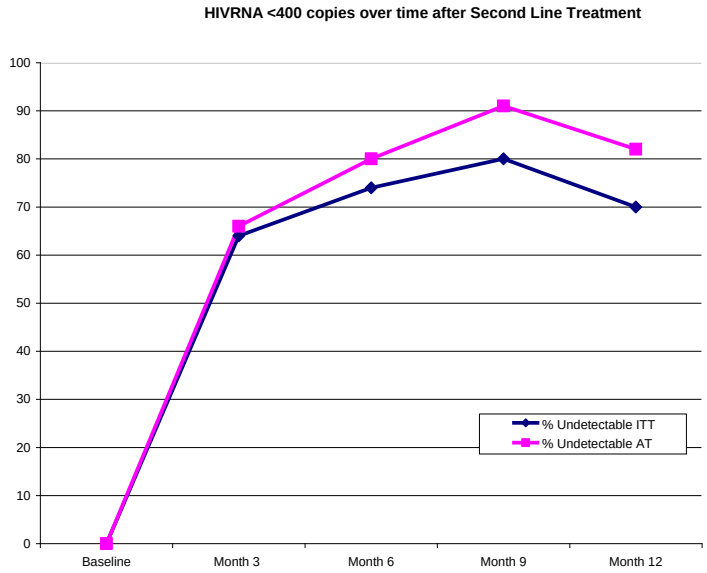
B6. Efficacy Of Second Line Regimen In Malawi: Preliminary Results From Lilongwe

Mina Hosseinipour, Ralf Weigel, Dalitso Mzingangira, Nasinuku Saukila, Clement Simunje, Sam Phiri Francis Martinson [fmartinson@unclilongwe.org.mw]

Introduction: The Malawi antiretroviral program currently restricts second line treatment (AZT/3TC/Tenofovir/Lopinavir/ritonavir) to Centres of Excellence. The efficacy and safety of the second line regimen in the Malawian population is not known. We report the preliminary results of patients initiating second line treatment at Lighthouse Clinic (LH).

Methods: This is a prospective observational trial of patients initiating second line treatment at LH. Patients with confirmed failure (HIVRNA detectable) are monitored monthly for clinical events and quarterly with safety, immunologic and virologic laboratory testing.

Results: To date, 64 patients have started second line treatment at LH through this study. The mean CD4 was 130 cells/ml (sd 115) and mean HIVRNA=37,597 copies/ml (sd 166,102). Thus far, 4 patients died after starting treatment (2 TB, 2 KS). Proportions with HIVRNA<400 copies is pictured below.



11 patients required modifications to second line due to toxicity and/or drug interactions (2 lactic acidosis, 3 renal insufficiency, 6 anemia, 5 for TB treatment) and 2 developed or had worsening diabetes.

Conclusions: Early results suggest the second line regimen is efficacious with regards to virologic suppression. Toxicity and drug modification is common and restriction to central locations remains warranted at this time.

B7. Validating Clinical And Immunological Definitions Of Antiretroviral Treatment Failure In Malawi

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Introduction: Malawi has scaled up a large national ART program using first line therapy (D4T/3TC/NVP). Patients who have been adherent on treatment > 6 months and present with a new WHO stage 4 condition (clinical failure) or a > 50% decline from peak CD4 count (immunological failure) are described as having failed ART in the Malawi National ART guidelines. Second line treatment (AZT/3TC/TDF/LPV/RTV) is limited to the Lighthouse Clinic in Lilongwe and the Queen Elizabeth Central Hospital in Blantyre. We evaluated the current definition of treatment failure in Malawi.

Methods: Patients meeting the Malawi National ART definition for treatment failure from December 2005 to January 2007 were evaluated. Blood was drawn for HIVRNA. Treatment failure was confirmed if HIV-RNA was > 400 copies/ml.

Results: 152 patients were identified as failures (75% Immunological, 21% Clinical, 4% Both) by the national definition. Mean age was 39 years, 51% were female, mean CD4 was182 cells/ml and mean duration on therapy was 28 months. Ninety patients (59%) were confirmed to have virological failure (Clinical 68% and Immunologic 58%). Confirmed virological failures were on ART longer (40 months vs. 25 months, $p<0.0001$) but CD4 counts were similar (162 cells vs. 212 cells, $p=0.08$). On multivariate analysis, confirmed failure was associated with ART >3 years (OR= 4.64 [2.4-13.3]) and KS (OR 0.24 [0.095-0.62]). Active TB and Chemotherapy for Kaposi's Sarcoma were identified as reasons for misclassification of immunologic failure. Excluding KS from the failure definitions improved correct identification of failure to 76% for clinical and 66% for immunologic.

Conclusions: Both immunological and clinical failure definitions misidentify patients as failures in approximately 40% of cases. Although ART failure definitions may be improved by including the duration of ART and the presence of KS, directed confirmatory HIVRNA testing will prevent misclassification of failure in resource poor settings.

B8. Implementation Of Routine Antenatal Cd4 Count Testing: Targeting Women Eligible For Art For Treatment

M Hosseinipour1, R Weigel2, I Mofolo1, E Kamanga1, D Kamwendo1, J Aberle-Grasse3, M Boxshall2, A Maida5, I Hoffman4, F Martinson1, and C van der Horst4 for the Call to Action Team.

1UNC Project, 2Lighthouse Clinic, 3CDC GAP, 4University of North Carolina, 5District health Office, Lilongwe.

Objectives: Identification of pregnant women eligible for Antiretroviral therapy (ART) will promote the health of the woman and reduce HIV transmission to the infant. UNC Project runs the largest PMTCT program in Malawi that provides HIV testing to 20,000 women annually at 5 clinics in Lilongwe. The Lighthouse Clinic is the largest government ART clinic in Malawi. These programs sought to determine how many HIV positive pregnant women in Lilongwe Malawi met eligibility for ART by using routine CD4 count testing and implement strategies to refer and start eligible women for ART.

Methods: Since July 17, 2006, all HIV + women identified through the PMTCT program have CD4 count testing (FACSCount) and WHO staging at the initial antenatal visit. Women with CD4 counts <250 cells or WHO stage 3 or 4 patients are referred to the nearest ART clinic. ART initiation for women referred to Lighthouse was facilitated through same day ART education and prompt initiation. Reporting is through Dec 31, 2006.

Results: 1416 HIV + women had CD4 count testing and WHO staging. The median CD4 was 409 [IQR 276-555] and 21% of the women had CD4 counts <250. Of these, 91% were Stage I, 7% stage II, and 3 % stage 3 or 4. Of the eligible women, 85% were referred and 70% started ART before delivery. Barriers identified to ART initiation included transport to the clinic and failure to return for CD4 results. In response, transport was provided twice per week for one PMTCT clinic and documentation that CD4 results were drawn alerted staff to instruct the client to return for results.

Recommendations: CD4 count testing can dramatically increase identification of pregnant women requiring ART treatment over clinical staging. Coordination between complementary programs can improve the care for pregnant mothers and their offspring.

B9. PMTCT Program Progress at University of North Carolina (UNC) Project, Lilongwe, Malawi.

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Background: The UNC Project began implementing a PMTCT program in 2002. The program is incorporated into existing maternal and child health care delivery systems. In collaboration with the Malawi MOH, EGPAF and UNICEF the program serves one central hospital and 3 health centers in the Lilongwe district. The program provides technical support to Mitundu Hospital PMTCT program. Home deliveries by traditional birth attendants are common in Malawi.

Methodology Every antenatal clinic day, a talk about the PMTCT program is given to all antenatal women. Newly registered antenatal mothers are oriented in groups of 8-12 followed by group pre-test counseling. Rapid HIV tests are used to determine HIV sero-status. HIV infected women are offered a single dose Nevirapine 200mg to take at the onset of labor and a single dose to infants within first 72 hours of life. CD4 testing is done for all HIV positive pregnant women. Women receive infant feeding and risk reduction counseling on follow-up visits. Co-trimoxazole prophylaxis is given to all HIV exposed infants from 6 weeks until their HIV sero -status is determined.

Results: In 2006 there were 21,135 new antenatal attendees; 99.5% (21,028/21,135) were counseled and 99.4 accepted testing. Among those who were tested, 15% (3,159) were HIV positive and all of these women received take home Nevirapine. However, only 50% (1,574/3,159) of mothers delivered their babies at a health facility and 54.6% (1,726/3,159) of eligible babies received a Nevirapine dose. The antenatal HIV prevalence has decreased in Lilongwe from 21.3% in 2002 to 15% in 2006.

Conclusion: We recommend that PMTCT programs be fully incorporated into all antenatal services in Malawi. Our program has demonstrated an increase in PMTCT, overall HIV risk reduction education, HIV VCT acceptance rate and Nevirapine uptake. All PMTCT programs should incorporate Traditional Birth Attendants since 45% of deliveries are outside hospital facilities. The program has started providing pre-packed infant Nevirapine syrup for dosing at home.

B10 HIV/AIDS And The Mental Health Of Young Malawians: Integrating Mental Health Into HIV And Interventions

M Mkandawire[17], *J Wright*[18], *F Lubben*[19].

Background:
Previous research has identified high levels of mental health problems amongst people affected by HIV. However, few studies have sought to uncover how these problems are experienced and understood by young people themselves and how this impacts upon their life choices and decision-making.

Objectives:
This study surveys specifically the voices of adolescents in Southern Malawi on their experiences of the impact of living with HIV and AIDS on mental health. At the same time, the study explores the perceived link between mental health problems and subsequent HIV-risk behaviour.

Methodology:
Everyday scenarios depicting symptoms of three mental health problems formed the basis of in-depth discussions in 12 existing groups of orphans and vulnerable children, teen-mothers, secondary school students and 'out-of-school' youth. They enabled the participants to describe the causes, consequences and ways of managing these problems. Group discussions were audio-taped, transcribed and analysed thematically.

Results:
Results indicate that the young people recognised the mental health sequelae of HIV/AIDS as impacting upon many aspects of their lives. The young people traced the 'interruptions' and 'disruptions' through deteriorating psychological and socio-economic conditions. They show awareness of a two-way interaction between HIV/AIDS and mental illness, the latter increasing the incidence of suicide and HIV risk-taking behaviour. More importantly, the young people identified a number of locally derived community interventions, which if supported by statutory health and education services, can significantly ameliorate their situations.

Conclusion & Recommendations:
The findings emphasise the significance of mental well-being to the overall health and decision-making of young people. The study also provides avenues for further research and for the practical integration of community-based mental health provision within HIV prevention, education and care initiatives.

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B.11. Developing A National Electronic Data System For Monitoring The National Hiv Treatment Program In Malawi

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Background:
Ministry of Health (MOH) in Malawi has recognized the need to maintain the efficiency and quality of data reporting for site monitoring and national level planning, including drug forecasting, during a rapid scale-up of antiretroviral therapy (ART). The national ART program currently uses a standardized paper-based patient monitoring system. This system has been demonstrated to provide reliable, high-quality data and generally to meet the objectives of MOH. However, as sites continue to enroll new patients, data collection and reporting using the paper based system is proving to be increasingly burdensome and error-prone.

Scope of Project:
In 2005, a national task force was convened to develop an electronic data system (EDS) to be piloted at public-sector ART sites. System specifications have been developed by the Task Force, taking into consideration some of the key issues for use of an EDS in typical public sector ART clinics in Malawi. These include: minimizing the burden of data collection for health care workers; providing quality, timely, and reliable information to system users; usability of system by health care staff with limited computer skills, ensuring system reliability in a setting with unreliable electricity and limited communications infrastructure, and the need to ensure system interoperability with other national EDS for health in Malawi. The dataset to be collected will follow national guidelines and be limited to the minimum data set for ART M&E data in Malawi.

Results and Conclusions:
The system is currently being piloted in four ART clinics, with a strong evaluation protocol to assess pilot outcomes, including data quality, user satisfaction, system reliability and preliminary results are available. Key characteristics of the system are a touch-screen interface for data entry, real time data entry by providers in the clinical settings, and adoption of internationally developed standards for data. The system has been designed tailored specifically to the needs of the ART program in Malawi; however, a thorough evaluation is essential to assess the feasibility of its use.

B.12 Early Warning Indicators For Hiv Drug Resistance In Malawi

BL Hedt1,2, N Wadonda-Kabondo3, S Makombe3, AD Harries3, EJ Schouten3, E Limbambala.4, M Hochgesang1, J Aberle-Grasse1, K Kamoto3

1 CDC/GAP, Malawi; 2 Rosenfield Global Health Fellow; 3 Ministry of Health, Malawi; 4WHO, Malawi

Objectives/Scope:
Malawi started rapid scale-up of ART in 2004 and by December 2006 has initiated over 85,000 patients on treatment. Under the guidance of the WHO, Early Warning Indicators (EWI) monitor programmatic factors associated with development of drug resistance. This report is one part of the Malawian approach to HIV Drug Resistance monitoring and surveillance activities, which is essential for continued success in the national ART program.

Methodology:
The first Early Warning Indicator Report for HIV drug resistance (HIV DR) has been compiled, reflecting outcomes for October – December 2006, based on data collected during routine quarterly supervision from 103 public sectors sites.

Results:
All sites successfully achieved the targets of prescribing standard first-line regimens 100% of new patients and having all patients on a standard (first-line or second-line) therapy. Also, 100% of sites had no drug stock-outs in 2006. 85% of sites achieved the WHO target for adherence and 84% achieved the target for minimizing treatment defaults. However, slightly less than half of all sites reach the WHO target for patient retention.

Conclusions/Recommendations:
These results emphasize the importance of default tracing and initiating treatment earlier in the course of HIV infection. As part of a comprehensive HIV DR monitoring program, the Ministry of Health plans for on-going tracking of these indicators, as well as special data collection from the private sector and for information on other recommended indicators that are not collected during routine supervision.

B.13. Malawi ART Programme: A Systematic Response to Tracking HIVDR

Malawi HIV Drug Resistance Task Force (for members see end of text)

Background: Malawi started rapid scale up of ART in 2004 and has initiated ART in >85,000 patients. As part of ARTscale-up, a national HIV drug resistance working group was formed to implement HIV drug resistance (HIVDR) prevention and assessment planning.

Methods: Using the World Health Organization's threshold survey approach to assess HIV drug transmission, we sequentially sampled HIV positive prima-gravida ANC clients aged <25 years in Lilongwe in 2006.

Results: Among 59 eligible specimens in the threshold survey, 54 (92%) were RT-PCR positive; 47 specimens were amplified for genotyping. Phylogenetic analysis using the NCBI genotyping tool. Indicated all were HIV-1 subtype C viruses No mutations on the WHO list for mutations associated with transmitted resistance were seen among the genotyped specimens; therefore transmitted drug resistance among the surveyed population in Lilongwe is classified as <5% for all relevant drugs and drug classes.

Conclusion: The finding of < 5% transmitted resistance in the capital city, where ART has been available longest, implies the current first line ART regimen can be used with confidence. Malawi is also implementing WHO's sentinel monitoring strategy to evaluate HIVDR emerging during ART in four clinics. The WHO strategy can be effectively implemented in resource-limited countries and critically inform ART scale up. Malawi's HIVDR prevention strategy will be further informed by HIVDR monitoring and subsequent annual assessments.

<u>Malawi HIV DR Task Force (and co-opted members):</u>

Nellie Wadonda-Kabondo2, John Aberle-Grasse4, Bethany Hedt4, Kundayi Moyo2, George Bello2, Diane Bennett6, Ben Chilima2, Anthony Harries1, Mina Hosseinipour7, Kelita Kamoto1, Eddie Limbambala6, David Lowrance5, Simon Makombe1, Blackson Matatiyo3, Amanda McNulty5, Erik Schouten1, Kassim Sidibe5, Ralf Weigel8, Chunfu Yang5

1 HIV Unit, Ministry of Health, Malawi
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3 National AIDS Commission, Malawi
4 CDC-GAP Malawi
5 CDC- Atlanta
6 WHO
7 University of North Carolina, Malawi Project
8 Lighthouse Trust, Malawi

B.14 Assessing the Quality of Data Aggregated by Antiretroviral Treatment Clinics in Routine Settings in Malawi

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Background. As national ART programs scale-up, complete, timely, and accurate information is essential for site monitoring and national planning, including drug forecasting and procurement. However, the level of accuracy and completeness of reports compiled by ART-facilities is not known.

Objectives. We conducted an operational study to: i) determine the completeness and accuracy of key case registration and outcome data compiled by ART clinics, ii) compare national data summarized from site reports versus totals based on supervision reports and iii) analyze characteristics associated with sites' capacity to compile quality data.

Methods. We assessed the quality of data reports compiled by sites prior to routine supervisory visits. Using data from April to June 2006, we compared the facilities' own quarterly aggregates (*"site report"*) to the data that had been compiled independently by the Ministry of Health supervision team *("supervision report").* Completeness and accuracy of key case registration and outcome variables was compared. Data were considered inaccurate if variables from the *site reports* were missing or more than 5% different from the "gold standard" of the *supervision reports*. Additionally, we compared the national summaries obtained from the two data sources.

Results. Most sites had complete case registration (70%) and outcome data (72%); however some critical data fields were not well-reported. The national summary using the *site reports* resulted in a 12% undercount in the national total number of persons on first-line treatment. A number of facility-level characteristics were associated with data quality.

Conclusions/Recommendations. While sites are generally doing well in completing data, the accuracy of these data is not yet in an acceptable range for some sites. MOH and its partners should continue to identify interventions such as regular supportive supervision to build capacity to maintain and compile quality data to ensure that accurate information is available for site monitoring and national planning.

B.15 Health care workers and antiretroviral therapy in Malawi

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11 London School of Hygiene and Tropical Medicine, London, UK

Setting: All public sector and private sector facilities in Malawi providing antiretroviral therapy (ART) to HIV-positive patients, including health care workers.
Objectives: To determine a) the proportion of the health care workforce being used for ART in the public sector, and b) the uptake of ART by health care workers and their outcomes while on treatment.
Design: Cross-sectional survey of health worker staffing at all public health facilities providing ART services between July and September 2006. Retrospective cohort study using ART patient master cards and ARV patient registers with data and treatment outcomes censored on June 30th 2006.
Results: Up until June 2006, 57,366 HIV-positive patients started free ART from 95 public sector sites and 2,225 patients started subsidised ART from 28 private sector sites. In the public sites, an average of 2.4 days per week was allocated to providing ART services, and the proportion of clinician, nurse and ward clerk time allocated to ART service delivery was 10%, 5% and 33% respectively. There were 1,024 health care workers started on ART (1.8% of all patients ever started on ART), with 84% assessed in WHO Clinical Stage 3 or 4 and 16% in WHO Clinical Stage 1 or 2 with a low CD4-lymphocyte count. By June 30th, 2006, 793 (77.6%) were alive and on ART at their registration facility. The probability of being alive and on ART at 6-months, 12-months and 18-months was 85.1%, 81.3% and 78.2% respectively.
Conclusion/Recommendation: Currently, a large number of patients are managed very efficiently in Malawi's free national ART programme, requiring only a small proportion of the total health care workforce. A considerable number of HIV-positive health care workers themselves have started on ART with good treatment outcomes. This intervention alone may help to mitigate some of the shortages of skilled personnel in resource-poor countries.

B.16 HIV Drug Resistance Surveillance in a National ART program

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Ministry of Health, National AIDS Commission, CDC-GAP, WHO, University of North Carolina, Lighthouse, Mzuzu Central Hospital, Taiwan Medical Mission, Queen Elizabeth Central Hospital, College of Medicine, Thyolo District Hospital, Medicines Sans Frontiers

Background: Malawi is implementing a rapid scale up of antiretroviral therapy (ART) nation-wide by focusing principally on 1 first line regimen. As of December 2006, 85,481 patients started ART, 59,980 were alive and on treatment, with 3% on alternative therapy and <1% on second line. Since ART is lifelong and HIV has a high mutation rate, development of some HIV drug resistance (HIVDR) is inevitable. Individual patient monitoring is not feasible given Malawi's limited resources and current infrastructure. Intensive group and individual counselling, a patient guardian support mechanism, and routine pill counting has been implemented to support adherence. The Malawi ART Treatment Guidelines and Scale-Up Plan recognize surveillance for HIVDR as a vital component of national ART delivery.

Approach: Malawi is implementing a multi-pronged approach to HIVDR monitoring based on the WHO Guidelines. An HIVDR threshold survey will assess HIVDR in persons recently infected (prima-gravida ANC clients aged <25 years). The other component, HIVDR monitoring will assess the national ART program and estimate patients on standard first-line ART achieving viral suppression 12 months after starting therapy. Specimens not achieving viral suppression will be genotyped to identify specific HIVDR.

Outcomes/Challenges: Results from the newly infected cohort showed no HIV DR transmission. Collection of cohort monitoring specimens was initiated in March 2007. Testing is being conducted at WHO designated reference laboratories and results will follow collection by 4 months. Implementation will be described focusing on national and site requirements and challenges, along with available results.

Recommendations: HIVDR monitoring is critical for Malawi to assess the HIVDR mutations and individual/programmatic associations for complete ART program evaluation and public health action where decisions on ART regimens are made on a population basis. Knowledge about resistance in patients failing first line ARVs is important given the current limited choice of cheap, fixed dose combinations.

B.17 DEVELOPING A NATIONAL ELECTRONIC DATA SYSTEM FOR MONITORING THE NATIONAL HIV TREATMENT PROGRAM IN MALAWI

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Background:
Ministry of Health (MOH) in Malawi has recognized the need to maintain the efficiency and quality of data reporting for site monitoring and national level planning, including drug forecasting, during a rapid scale-up of antiretroviral therapy (ART). The national ART program currently uses a standardized paper-based patient monitoring system. This system has been demonstrated to provide reliable, high-quality data and generally to meet the objectives of MOH. However, as sites continue to enroll new patients, data collection and reporting using the paper based system is proving to be increasingly burdensome and error-prone.

Scope of Project:
In 2005, a national task force was convened to develop an electronic data system (EDS) to be piloted at public-sector ART sites. System specifications have been developed by the Task Force, taking into consideration some of the key issues for use of an EDS in typical public sector ART clinics in Malawi. These include: minimizing the burden of data collection for health care workers; providing quality, timely, and reliable information to system users; usability of system by health care staff with limited computer skills, ensuring system reliability in a setting with unreliable electricity and limited communications infrastructure, and the need to ensure system interoperability with other national EDS for health in Malawi. The dataset to be collected will follow national guidelines and be limited to the minimum data set for ART M&E data in Malawi.

Results and Conclusions:
The system is currently being piloted in four ART clinics, with a strong evaluation protocol to assess pilot outcomes, including data quality, user satisfaction, system reliability and preliminary results are available. Key characteristics of the system are a touch-screen interface for data entry, real time data entry by providers in the clinical settings, and adoption of internationally developed standards for data. The system has been designed tailored specifically to the needs of the ART program in Malawi; however, a thorough evaluation is essential to assess the feasibility of its use.

B.18 EARLY WARNING INDICATORS FOR HIV DRUG RESISTANCE IN MALAWI

Authors:
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Objectives/Scope:
Malawi started rapid scale-up of ART in 2004 and by December 2006 has initiated over 85,000 patients on treatment. Under the guidance of the WHO, Early Warning Indicators (EWI) monitor programmatic factors associated with development of drug resistance. This report is one part of the Malawian approach to HIV Drug Resistance monitoring and surveillance activities, which is essential for continued success in the national ART program.

Methodology:
The first Early Warning Indicator Report for HIV drug resistance (HIV DR) has been compiled, reflecting outcomes for October – December 2006, based on data collected during routine quarterly supervision from 103 public sectors sites.

Results:
All sites successfully achieved the targets of prescribing standard first-line regimens 100% of new patients and having all patients on a standard (first-line or second-line) therapy. Also, 100% of sites had no drug stock-outs in 2006. 85% of sites achieved the WHO target for adherence and 84% achieved the target for minimizing treatment defaults. However, slightly less than half of all sites reach the WHO target for patient retention.

Conclusions/Recommendations:
These results emphasize the importance of default tracing and initiating treatment earlier in the course of HIV infection. As part of a comprehensive HIV DR monitoring program, the Ministry of Health plans for on-going tracking of these indicators, as well as special data collection from the private sector and for information on other recommended indicators that are not collected during routine supervision.

B.19. The 2006 Situational Analysis of HIV Services in Malawi

P. Moses, L. Ngomangoma, M. Eliyah, P. Chibuye, R. Chimzizi, J. Odoyo, M. Hochgesang, The Lighthouse Group, A. Harries, K. Kamoto

Background

National surveys of HIV Services have been conducted annually since 2002.

Objectives and scope

To obtain a complete inventory of medical HIV-related services in Malawi for 2006 and to measure utilization of these services.

Methodology

Between March-May 2007, 155 health facilities were visited to collect data on practices and utilization of HIV-testing, PMTCT, TB/HIV and blood transfusion services at these and associated sites on a structured form.

Results/Lessons Learnt

A total of 600,000 testing encounters were recorded at 359 static and 287 outreach HTC sites. The HIV-testing week was estimated to have motivated an additional 60,000 persons who accessed HTC during one week in July 2006 over and above the monthly average. There were 112,000 HIV-positive HTC encounters.

Out of 132 facilities that provided HTC for antenatal women, 80 had tested >50% of women attending. Overall 58% of the 250,000 ANC clients included in the survey (out of 550,000 pregnant women had accessed HTC and 55% of the 17,700 HIV-positives received the maternal dose of NVP at ANC. HIV-status was recorded for 25% of the 170,400 deliveries in the survey and 77% of the 6,850 HIV-positive women and 87% of their babies received NVP perinatally.

The survey recorded 25,537 TB cases at the 43 TB-registration facilities. Of these, 68% had accessed HTC and 11,460 TB patients (66% of those tested) were HIV-positive. There were 46,351 new ART registrations in 2006 and 6,868 of these started ART due to TB. This is equivalent to 60% of the known HIV-positive TB patients.

Conclusions

HIV services continued to scale up during 2006. There was a particularly encouraging increase of HIV-testing and dispensing of NVP in the PMTCT program.

Recommendations

The standard M&E systems for HIV-related services are currently being revised to improve completeness and accuracy of data. This will support the strategic planning of continued scale-up of services.

B.20 *Gender Differences in CD4 Levels and Trends and Mortality in Lighthouse ART Patients*

The Lighthouse Group

Objectives and scope:

To examine the gender differences in the distribution of immunological and clinical stages in ART-patients and their outcomes.

Methodology:

Lighthouse offers routine CD4-counts to all clinically eligible patients before ART-initiation and 6-monthly thereafter to monitor immunological response to treatment. Samples are analysed using FacsCount or EPICS, respectively.

Results/Lessons Learnt:

Between November 2004 and April 2007, 2,891 baseline and 7,692 follow-up CD4-results from 4,826 adult patients were obtained (1,991 men and 2,835 women). Median baseline CD4-counts were 104, 136 and 143 cells/µl in 2005, 2006 and 2007, respectively. Significantly more men started ART in WHO clinical stage 4 (25% vs. 18%). Overall median CD4-counts were 128, 126 and 105 in clinical stage 2, 3 and 4, respectively. Men in stage 2 and 3 had significantly lower baseline CD4-counts than women, but both had similar values in stage 4. After 6, 12, 24 and 36 months on ART, 39%, 45%, 63% and 68% of women had regained a CD4-count of ≥350cells/µl, respectively. Significantly fewer men had passed this threshold at these intervals (28%, 33%, 38%, 40%). Overall mortality was significantly higher in men (7% vs. 5%). Patients with a baseline CD4-count <100 cells/µl had a 12% mortality vs. 4% in those with 100-250 cells/µl. After adjusting for immunological stage at baseline, the gender difference in mortality disappeared.

Conclusions:

Men started ART in clinically and immunologically more advanced stages and had poorer outcomes in terms of immune-reconstitution. Higher mortality rates in men were consistent with these findings. More recently, fewer patients initiated ART in advanced stages of immunosuppression. There was an indication that the proportion of men who initiated treatment in advanced stages has become more similar to that of women in 2007.

Recommendations:

Gender-specific barriers to timely access of ART should be identified to improve long-term outcomes and reduce mortality.

B.21 Early Active Follow-Up Of Art-Patients Who Are Overdue For Their Appointment: The 'Back-To-Care' Project At The Lighthouse Clinic, Malawi.

The Lighthouse Group

Background: Between the start of the free ART-program in June 2004 and the end of 2006, 6,852 patients had received ART at Lighthouse and 2,909 (42%) of these had subsequently stopped visiting (20% lost to follow-up, 14% transferred, 7% died, 1% stopped ART). ART-visits are scheduled monthly for the first 6 months and 2-monthly thereafter.

Objectives and Scope: To test a simple intervention designed to improve long-term retention in treatment and adherence to ART.

Methodology: Routine early follow-ups are scheduled to minimize ART-interruptions and defaults. Visits are recorded in real-time by clinic staff using a touch-screen computer system. Overdue patients are identified based on the date when they are due to run out of ARVs. Details of the follow-up have been recorded since September 2006, showing the reasons why patients have failed to return to the clinic at the expected time.

Results: Between September 2006 and January 2007, 410 cases were identified in which patients were calculated to have run out of ARVs for 3 weeks or more. Follow-up failed in 104 cases (102 untraced, 2 refusals; 25% loss to follow-up). Out of the 306 cases successfully followed, 98 (32%) had died, 70 (23%) had moved to another clinic, 61 (20%) had obtained ARVs from an irregular source and were on uninterrupted therapy, 40 (13%) had stopped and 37 (12%) reported treatment gaps. In 97 cases (47% of all cases where the patient was found alive) the patient promised to return to Lighthouse and in 75 cases (77%), the patient actually returned.

Conclusions: Patients have complex reasons for falling overdue. The growing density of ART clinics in Malawi is likely to increase uncontrolled patient mobility between clinics and will pose a growing challenge to clinical monitoring.

Recommendations: Early active follow-up has the potential to improve adherence and retention in treatment.

B. 22 Integrated TB and HIV services at Martin Preuss Centre – Initial Findings

The Lighthouse Group

Objectives and scope: The Martin Preuss Centre (MPC) at Bwaila hospital was designed to integrate TB and HIV care and treatment. MPC offers TB screening, diagnosis, registration and treatment, HIV Testing and Counselling (HTC), and HIV care and treatment including ART. First patients were seen in December 2006.

Methodology: All patients registering for TB treatment at MPC are offered HTC using a standardized protocol. Testing is on an opt-out basis, and HTC takes place in dedicated rooms within the TB registry. HIV positives are referred to the HIV clinic at their 8 week TB treatment visit, where they are fast-tracked into ART. Protocols and monitoring tools have been developed with the NTP.

Results/Lessons Learnt: The protocol for HTC of TB patients has been successful – in the first quarter of 2007, 90% of 779 new TB patients at MPC knew their HIV status (28% had a positive result before reaching MPC, 32% tested positive at MPC, 25% tested negative, and 5% had a previous negative result.)

However, initiation of TB patients onto ART at the centre has been disappointing. As of the end of April, only 119 (47%) of 252 HIV +ve TB patients managed at MPC had registered at the HIV clinic, and of these only 44 (17%) had started ART.

Conclusions: New protocols for provider initiated HTC of TB patients, coupled with well staffed, nearby counselling rooms, can reach a high proportion of patients. Nevertheless, barriers still exist to getting eligible patients on to ART.

Recommendations: Lighthouse and the NTP will continue to investigate reasons for our failure to effectively initiate ART for TB patients. Our current priorities are a) ensure that patients who have no written test results are routinely re-tested b) develop protocols for adding HIV status to health passports and c) review TB and referral protocols and d) review patient education options.

B.23 Outcomes of children and adolescents on ART at the Lighthouse, Lilongwe.

The Lighthouse group

Objective and Scope:
Since 2002, ART for HIV infected children and adolescents <15years follows a protocol and is integrated into the adult clinic. One day a week caregivers, either on ART or not, with their children get a priority by counsellors, clinicians and nurses. The programme has not been comprehensively reviewed so far.

Methodology:
Review of the ART database and patients' charts. Patients with missed appointments were traced by phone or in field when consent has been given and contact information was available. Retention in treatment was analysed using the Kaplan-Meyer function.

Results/Lessons learnt:
By end of Q1, 2007, 558 children started ART; 51% were female, the median age at ART initiation was 8 years (0.3-14). Only 3% were children <2 years.. The outcomes were as follows: 58% were alive and on ART, 19% were transferred out (77% "presumed alive"), 17% defaulted, 5% died, and 1% stopped. The median observation time was 17 months (range 0.03-47 months). The probability of survival at 6, 12 and 24 months was 88%, 82% and 74% respectively.
Clinical and immunological responses to ART will be presented.

Conclusions:
Paediatric ART was successfully integrated into an adult programme where adult patients recruit their children and act as caregivers. The survival in this group was better than in the national ART cohort.

Recommendations:
Integration of paediatric ART in an adult ART clinic requires a family centred approach. Young children can be reached with a strong link to the pMTCT programme.

B.24. Assessing the Quality of Data Aggregated by Antiretroviral Treatment Clinics in Routine Settings in Malawi

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Background. As national ART programs scale-up, complete, timely, and accurate information is essential for site monitoring and national planning, including drug forecasting and procurement. However, the level of accuracy and completeness of reports compiled by ART-facilities is not known.
Objectives. We conducted an operational study to: i) determine the completeness and accuracy of key case registration and outcome data compiled by ART clinics, ii) compare national data summarized from site reports versus totals based on supervision reports and iii) analyze characteristics associated with sites' capacity to compile quality data.
Methods. We assessed the quality of data reports compiled by sites prior to routine supervisory visits. Using data from April to June 2006, we compared the facilities' own quarterly aggregates (*"site report"*) to the data that had been compiled independently by the Ministry of Health supervision team *("supervision report").* Completeness and accuracy of key case registration and outcome variables was compared. Data were considered inaccurate if variables from the *site reports* were missing or more than 5% different from the "gold standard" of the *supervision reports*. Additionally, we compared the national summaries obtained from the two data sources.
Results. Most sites had complete case registration (70%) and outcome data (72%); however some critical data fields were not well-reported. The national summary using the *site reports* resulted in a 12% undercount in the national total number of persons on first-line treatment. A number of facility-level characteristics were associated with data quality.
Conclusions/Recommendations. While sites are generally doing well in completing data, the accuracy of these data is not yet in an acceptable range for some sites. MOH and its partners should continue to identify interventions such as regular supportive supervision to build capacity to maintain and compile quality data to ensure that accurate information is available for site monitoring and national planning.

B.25. Health Care Workers And Antiretroviral Therapy In Malawi

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Setting: All public sector and private sector facilities in Malawi providing antiretroviral therapy (ART) to HIV-positive patients, including health care workers.
Objectives: To determine a) the proportion of the health care workforce being used for ART in the public sector, and b) the uptake of ART by health care workers and their outcomes while on treatment.
Design: Cross-sectional survey of health worker staffing at all public health facilities providing ART services between July and September 2006. Retrospective cohort study using ART patient master cards and ARV patient registers with data and treatment outcomes censored on June 30th 2006.
Results: Up until June 2006, 57,366 HIV-positive patients started free ART from 95 public sector sites and 2,225 patients started subsidised ART from 28 private sector sites. In the public sites, an average of 2.4 days per week was allocated to providing ART services, and the proportion of clinician, nurse and ward clerk time allocated to ART service delivery was 10%, 5% and 33% respectively. There were 1,024 health care workers started on ART (1.8% of all patients ever started on ART), with 84% assessed in WHO Clinical Stage 3 or 4 and 16% in WHO Clinical Stage 1 or 2 with a low CD4-lymphocyte count. By June 30th, 2006, 793 (77.6%) were alive and on ART at their registration facility. The probability of being alive and on ART at 6-months, 12-months and 18-months was 85.1%, 81.3% and 78.2% respectively.
Conclusion/Recommendation: Currently, a large number of patients are managed very efficiently in Malawi's free national ART programme, requiring only a small proportion of the total health care workforce. A considerable number of HIV-positive health care workers themselves have started on ART with good treatment outcomes. This intervention alone may help to mitigate some of the shortages of skilled personnel in resource-poor countries

B.26.HIV Drug Resistance Surveillance in a National ART program

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Ministry of Health, National AIDS Commission, CDC-GAP, WHO, University of North Carolina, Lighthouse, Mzuzu Central Hospital, Taiwan Medical Mission, Queen Elizabeth Central Hospital, College of Medicine, Thyolo District Hospital, Medicines Sans Frontiers

Background: Malawi is implementing a rapid scale up of antiretroviral therapy (ART) nation-wide by focusing principally on 1 first line regimen. As of December 2006, 85,481 patients started ART, 59,980 were alive and on treatment, with 3% on alternative therapy and <1% on second line. Since ART is lifelong and HIV has a high mutation rate, development of some HIV drug resistance (HIVDR) is inevitable. Individual patient monitoring is not feasible given Malawi's limited resources and current infrastructure. Intensive group and individual counselling, a patient guardian support mechanism, and routine pill counting has been implemented to support adherence. The Malawi ART Treatment Guidelines and Scale-Up Plan recognize surveillance for HIVDR as a vital component of national ART delivery.

Approach: Malawi is implementing a multi-pronged approach to HIVDR monitoring based on the WHO Guidelines. An HIVDR threshold survey will assess HIVDR in persons recently infected (prima-gravida ANC clients aged <25 years). The other component, HIVDR monitoring will assess the national ART program and estimate patients on standard first-line ART achieving viral suppression 12 months after starting therapy. Specimens not achieving viral suppression will be genotyped to identify specific HIVDR.

Outcomes/Challenges: Results from the newly infected cohort showed no HIV DR transmission. Collection of cohort monitoring specimens was initiated in March 2007. Testing is being conducted at WHO designated reference laboratories and results will follow collection by 4 months. Implementation will be described focusing on national and site requirements and challenges, along with available results.

Recommendations: HIVDR monitoring is critical for Malawi to assess the HIVDR mutations and individual/programmatic associations for complete ART program evaluation and public health action where decisions on ART regimens are made on a population basis. Knowledge about resistance in patients failing first line ARVs is important given the current limited choice of cheap, fixed dose combinations.

B.27 Health care worker (HCW) access to HIV treatment, care and support services in Malawi: Lessons learned.

Grace Bongololo, Lot Nyirenda, Ann Phoya, Sam Phiri, Mindy Hochgesang, Sally Theobald Ireen Makwiza.

Introduction
Antiretroviral therapy (ART) has been provided free of charge since June 2004. Shortage of human resources is one of the major challenges to ART scale up. It is estimated that 10% of the deaths in the Ministry of Health are caused by HIV and AIDS. HCWs risk to HIV is increased through occupational exposure. Since HCWs are critical to the expansion and delivery of ART, and are themselves affected by the epidemic, it is important that they take up HIV testing and counselling (HTC) and ART. This study aimed to understand challenges HCWs face to access HIV and AIDS treatment care and support services.

Objectives
- To explore HCWs knowledge, attitudes and perceptions about HTC, ART and post exposure prophylaxis (PEP)
- To determine the extent of access and utilisation of HTC, ART and PEP and the factors leading to utilisation or underutilisation.

Methods
In-depth semi-structured questionnaires were conducted with HCWs in 2 districts. A survey based on the qualitative findings to determine representativeness of findings was conducted in 8 districts across the country (Results for the survey will be available in July, 2007).

Findings
Most respondents had not gone for HCT as of the time of the interview. Use of lower cadres as HIV counsellors was reported to be a barrier to accessing HTC by HCWs of higher cadres. The fear of being perceived as failed role models and stigma was a barrier to accessing HTC and consequently ART. Limited knowledge about PEP, unavailability and HIV testing were reported as challenges to accessing PEP. Most HCWs showed preference to have their own clinic for HIV and AIDS services as opposed to mixing with the general public.

Conclusion: HCWs face a myriad of challenges to access HTC, PEP and ART. There is an urgent need to recognise the dilemma that HCW face to access HIV related services especially where they are expected to mix with the general public. Providing them with tailor made services can help to improve HCW access instead of the ‘one size fits all’ approach.

B.28 A Qualitative Study To Explore Barriers Faced By Patients In Adhering To Antiretroviral Therapy At Lighouse Clinic

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Background

The success of the antiretroviral therapy (ART) depends on maintaining high adherence levels among patients on ART. Lighthouse operates the largest ART clinic in Lilongwe District with currently 4,000 patients on ART.

Methodology

The study used in depth interviews, key informant interviews and participant observation. Study participants included 42 patients who were identified during routine active defaulter tracing (Back2Care Programme) as having missed doses and appointments. Key informant interviews with 11 clinic staff were conducted to explore the providers' perceptions.

Results

The study revealed several impediments to ART adherence. Financial problems were reported as a major challenge leading to patients missing appointments or stopping treatment. Patients reported that they sometimes do not have money for transport to travel to and from the hospital. Financial constraints also led to problems in sourcing food in the home hence patients' failure to strict observation of their dose time and appointment dates. Patients' financial problems were aggravated as a result of loss of income and employment due to long illness. Travel outside Lilongwe for purposes of business and work for instance truck drivers and business people, also contributed to missing of doses and appointments. Some patients believed that they could be cured through traditional medication and prayers which caused them to stop treatment.

Conclusion

Early recognition of risk factors for poor adherence could help to communicate targeted health messages to these groups to encourage treatment adherence and retention in the ART programme. There is also a need to emphasize that there is still no cure to HIV and AIDS to the patients. Follow up of patients is important to promote patients' adherence to antiretroviral therapy.

B.29 Experiences With Provision Of Nutrition Care, Support And Treatment As Part Of The Malawi Art Program.

C. Mkangama[1], T. Ngulube[2], R. Mathisen[3], N. Nutma[4], S. Thurstans[4], E. Some[3]

Background: Acknowledging the importance of integrating nutrition care, support and treatment in the National HIV/AIDS response, the Ministry of Health and partners developed in 2004 a Nutrition package for people living with HIV which was piloted in 6 sites and has been scaled up to 60 ART sites.

Objectives and scope: Facilitate adoption of appropriate nutrition practices and provision of nutrition treatment.

Methodology: Nutrition education and counseling is provided to all clients visiting ART clinics, TB patients and guardians. Clients' nutrition status is assessed. Defined admission and discharge criteria have been set for the treatment component of the program. Ready to Use Therapeutic Food (RUTF) and F75 and F100 (milk formula) are used for nutrition treatment in either an in- or out-patient setting, depending on complications and appetite.

Results: Program acceptance by health workers and patients is very high. Prevalence of malnutrition in people starting ART is around 19%, accumulating to 7,600 clients per year being eligible for treatment. All clients on ART benefit from nutrition education and counselling. Challenges include shortage of staff and suitable storage space, high staff turnover, high costs, inadequate allocation of funds from GFATM and Health SWAPs for coordination, basic equipment and supplies, absence of a comprehensive monitoring and evaluation system and delays in transfer of GFATM funds resulting in stock-outs.

Conclusions and Recommendations: Strong commitment from government and partners, adequate institutional capacity at central, zonal and district levels, and effective coordination is essential for the success of this program. Monitoring and evaluation, including operational research, is vital for further programme modification. To improve quality of care, a functional referral system, linking clients with food security interventions, social protection and HIV services, is needed. Integration of nutrition and HIV into the District Implementation plans, SWAPS, MGDS and pre-service training and local production and procurement of RUTF are vital to sustain the programme.

1 OPC
2 Ministry of Health, Nutrition Unit
3 UNICEF
4 Action Against Hunger

B.30 Uptake Of HIV Testing And Counselling In Nutritional Rehabilitation Units And Stabilization Centres: Experiences And Data From 46 NRU/SC In Malawi.

N. Nutma[20], F. Pensulo[21], A. Yarparvar[1], S. Thurstans[1]

Background: From 2003 to 2007, AAH has supported 46 Nutrition Rehabilitation Units (NRU) and Stabilization Centres (SC) to improve inpatient management of Severe Acute Malnutrition, as part of an EU and ECHO funded program. With financial support from NAC (2004-2006), AAH promoted HIV testing and counselling (HTC) and referral to HIV care as integral part of the NRU/SC care package, with the objective to improve care for HIV infected malnourished children.

Objectives and scope: To evaluate uptake of HTC amongst children admitted to 46 NRU/SC in Malawi between September 2005 and February 2007.

Methodology: NRU/SC survey census data concerning admissions, discharges, outcomes, as well as number of children tested for HIV, was analysed. Additionally, data from 2 questionnaires (2004/2006), done in the 46 NRU/SC to asses factors that potentially influence uptake of HTC, was analysed.

Results: The overall uptake of HTC amongst children admitted to the NRU/SC increased from around 30% to around 50% between 2005 and 2007, with considerable variations between NRU/SC. NRU/SC with a high uptake of HTC have a staff member trained in HTC, provide HTC in the NRU/SC and offer HTC on admission. In NRU/SC with a low uptake, HTC is not easily/always available, HTC is offered by medical staff only and there is a general staff shortage

Conclusions: Uptake of HTC in NRU/SC seems to be higher when HTC is offered routinely on admission, preferably by a trained staff member.

Recommendations: With the high prevalence of HIV in NRU/SC and paediatric HIV care becoming more widely available, offering of HTC should become routine in all NRU/SC. Lessons can be learnt from NRU/SC that have a high HTC uptake. A national strategy to improve uptake of HTC in NRU/SC should be developed by MoH and involved stakeholders, and could include development of protocols, tools and skills for routine offering of HTC.

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1 Action Against Hunger
2 Ministry of Health Malawi, Nutrition Unit

B.31 CD4% And Mortality In Hiv Infected Severerly Malnourished Children In Nutrition Rehabilitation Units In Malawi.

J. Chinkhumba, A. Tomkins, T. Banda, C. Mkangama, P. Fergusson

Background: HIV prevalence is high in severely malnourished children. The relationship between HIV, CD4% and mortality is unknown.

Objectives and scope: To investigate the relationship between CD4% and mortality in HIV infected and uninfected children with severe malnutrition.

Methodology: In this observational cohort study, 454 severely malnourished children were recruited at 3 nutrition rehabilitation units (NRUs) in Malawi. All children were tested for HIV and CD4% with carer consent and monitored until achieving nutritional recovery through therapeutic feeding in the NRU. Antiretroviral therapy was not available at the time of the study.

Results: 17.4% of the children were HIV infected. The overall mortality was 13.7%. 35.4% (28/79) of HIV infected children died, while 10.4 % (39/375) of HIV uninfected children died in the NRU. HIV infected children had a relative risk of mortality of 3.41 (CI 2.24 – 5.20) when compared to the HIV uninfected children.

CD4 % of <14.9%, 15 – 19.9% , 20 – 24.9% and >25% respectively were found in 57.1%, 28.6%, 4.8% and 9.5% of HIV infected children.
40% (18/45) of HIV infected children with a CD4% <20 died, in contrast to 15% (3/20) of HIV infected children with a CD4%>20.

Conclusions: The majority of HIV infected children have low CD4%**.** Low CD4% is a risk factor for mortality in HIV infected children.

Recommendations: HIV testing and treatment should be a part of routine care in severe malnutrition. Increased availability of CD4% monitoring in severely malnourished children will assist guiding decisions for ART initiation.

B.32 Oedema And Risk Of Mortality In Hiv Infected And Unifected Severely Malnourished Children In Malawi.

P. Fergusson, J. Chinkhumba, C. Demenezes, T. Banda, C. Mkangama, A. Tomkins

Background: There is a high prevalence of HIV amongst severely malnourished children in Malawi. Little is known about the characteristics of these children and the implications of HIV for nutrition rehabilitation. One common complicating factor in severe malnutrition is oedema.

Objectives and scope: To investigate prevalence of oedema in HIV infected and uninfected children, and the implications of oedema for mortality.

Methodology: In this observational cohort study, 455 severely malnourished children were recruited at 3 nutrition rehabilitation units (NRUs) in Malawi. All children were monitored for oedema and tested for HIV and CD4% with carer consent and monitored until achieving nutritional recovery through therapeutic feeding in the NRU. Antiretroviral therapy was not available at the time of the study.

Results:
(384/455) 86.3% of all severely malnourished children in our sample had oedema. HIV prevalence among the children was (77/455) 17.3%. HIV positive children were significantly less likely to be oedematous (54/77) (70%) than HIV negative children (330/368) (89.7%) ($p < .000$). Oedema in HIV negative children had no effect on risk of mortality (RR= 1.0 CI .39 – 2.75) Within the HIV infected children, however, presence of oedema increased the risk of mortality (RR=1.56) (CI=.73–3.3)

Conclusions: While presentation with oedema is common in severe malnutrition for both HIV infected and uninfected children, in HIV infected children the risk for mortality is increased.

Recommendations: Further research examining the aetiology of oedema in these children is necessary to determine if the oedema is attributable to HIV or to malnutrition, and the implications for best care and treatment.

TRACK C: IMPACT MITIGATION: SOCIAL, ECONOMIC AND PSYCHO-SOCIAL

This Track highlights areas of scientific investigation into social, economic and cultural dimensions of the epidemic and its impacts and cases of programs and interventions that address these challenges with high impacts and benefits to the target groups.

C1. Psychosocial Support For Grandmothers A Means For Psychosocial Wellbeing For Children Under Their Care

A. C. Chapomba - Consol Homes Care of Miriam Kaluwa alfchapomba@yahoo.co.uk

Background (Prompting Issues):

Grandmothers':

- Shock & grief from own losses
- Unexpected resumption of parenting duties when they need to be cared for
- Struggling with adjustment to absorb childcare demands while sickly & weak
- Poor parenting methods as take over guardians
- Social exclusion by younger generation
- Accusations of witchcraft while struggling with hardships of care-giving

Objectives of the Intervention:

- Strengthen guardian/child relations & extended family systems
- Enhance problem solving skills & competencies in guardians.
- Provide psychosocial support for guardians & OVCs under their care
- Create/ provide alternative social support structures
- Provide a supportive and freer environment for adjustment

Methodology:

Conduct sessions on:

- Problem sharing and solving through group processes
- Social support and network building in view of sickness & bereavements
- Free play, joke and humor story sharing
- Nutrition lessons and cooking demonstration
- Better parenting.
- Income Generation mechanisms & provision of startup capital

Results:

- Guardians free and relieved to share their stories after hearing stories of peers being aware they are not the only one
- Improved concentration & constructiveness on issues
- Positive approach of daily challenges
- Improved child/granny relations leading to enhanced school attendance/performance

Conclusion(s):

- Most abuse by takeover guardians is due to personal psychosocial problems
- Healing from pains of losses and grief is rapid
- Personal healings translate into productive thinking and planning for better parenting
- Group approaches offer non-threatening methods for resolving guardian/child conflicts besides providing free, non-stigmatizing atmosphere for correction & adjustment.

Recommendations:

- Programs working with OVCs need to include their guardians as well
- Inclusion of the elderly in planning activities that affect them for relevance & responsiveness
- Need for perseverance and patience while respectful, culturally sensitive & confidentiality conscious.
- Apply cultural appropriate approaches
- IGAs should form part of core activities

C2. "The Prevalence Of Psychological Distress And Associated Factors Among People Living With Aids Attending Antiretroviral Therapy Clinics In Mzuzu, Malawi: A Cross Sectional Descriptive Study."

Masulani-Mwale, C. G. Charles Masulani [cgmasulani@yahoo.co.uk]

Background:
There are no much statistics of the extent of mental and psychosocial problems among people living with AIDS (PLWAs) in Malawi. However, studies of these problems in neighboring countries show that at least 10% of the general population is affected. With this backdrop, this study determined the prevalence of psychological distress and associated factors among PLWAs attending anti-retroviral (ARV) clinics in Mzuzu.
The study aimed at enlightening health care providers and policy makers on the extent of the problems and guide interventions to ensure that PLWAs receive a complete and comprehensive "health" package as recommended by WHO.

Objectives of the study:
The objective of this study was to determine the prevalence of psychological distress and associated factors among PLWAs attending ARV clinics in Mzuzu City.

Methods:
A cross-sectional survey was done among PLWAs attending ARV clinics at Mzuzu Central and St. John's Hospitals, in Mzuzu. 440 clients were sampled using systematic sampling. The "Self Reporting Questionnaire" (SRQ) a measure of psychological distress, was administered verbally to the participants. Ethical clearance, institutional authority and consent for the study were sought from COMREC, medical directors of the two institutional sites and participants of the study respectively. SPSS and STATA were used to analyze data to address research objectives of the study.

Findings:
Young age, being female, low education, joblessness, and poor social economical status were associated with high psychological distress. It was also found that **14.4%** of this sample had psychological distress, while 4.5 % had suicidal feelings. On the clinical part, shorter duration on ARVs, non-availability of psychological support were some of the factors that were significantly predictive of psychological distress. Outcome of logistic regression did not give any statistically significant interaction or confounding brought by age, sex and social-economic status in the significant relationships. The associated factor for the suicidality was sex with females being more likely to be suicidal than men (P=0.05).

Recommendation:
It is recommended that health care providers do thorough assessments to address co-occurring psychological problems for PLWAs comprehensively.

C3. Assessing The Influence Of Gender Related Violence And Discrimination On The Susceptibility Of Young People To Hiv/Aids In Central Malawi. Options For Public Health Policy Interventions In Southern Africa

A.Kabuli[1] & S. Scheewe[2]

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This study focused on assessing the influence of gender related violence and discrimination on the vulnerability of young people to HIV/AIDS in Central Malawi. The study built on previous assessments that have mainly focused on investigating the role of information, education and communication in influencing behavior change amongst young people. Recent studies have all shown that gender based power relations between men and women influence the susceptibility of young men and women to HIV/AIDS. Gaps have also been identified in the amount of knowledge and information amongst young people with regard to their gender roles and sexual and reproductive health. The study helped to identify these gaps and make recommendations that influenced public health policy on how to mitigate the effects of such gender based violence on young people. Using a combination of both qualitative and quantitative research tools on a sample of 150 youths in Lilongwe's semi-urban and rural areas, the study found that deepening poverty and limited sources of income were some of the major causes of girl's vulnerability to HIVAIDS. Additionally, the study also found that although boys and girls were vulnerable to both sexual and other physical forms of violence, there was a general consensus that girls were more often victimized by sexual abuse and exploitation than boys. The study recommends that government and non governmental organizations put in place strategies to create more economic opportunities for the youth and particularly economic empowerment activities that directly target young girls.

C4. "HIV/AIDS Impact Mitigation through Behavioural Change Content Inclusion in the First Year Students' Curriculum of Health Academic Institutions in Malawi"

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(Lecturer: Malawi College of Health Sciences; Blantyre Campus)

This is a descriptive study geared towards examining behavioural change content inclusion in the first year students' curriculum of health's academic institutions in Malawi. It examines practical application of Psychology and Sociology knowledge by health institutions' candidates in identifying medically deviant cultural practices responsible in the spread of HIV/AIDS as well as in proposing mitigation means.

The major objective of this study is to find out health graduants' Psychology and Sociology knowledge level in order to bring about positive behavioural change in them and their society prior to and after they graduate.

For methodology, the study uses a case study design and employs content analysis to examine the psychology and sociology text books and high level question assignments on HIV/AIDS cultural content. Only five textbooks were used for the case study in order to make an in-depth examination. The study used a checklist to collect data. Data was analyzed using descriptive statistical techniques and the results were shown on frequency tables and bar graphs.

The findings of the study show that the health academic institutions' Psychology and Sociology textbooks have some technical HIV/AIDS information. They however have inadequate textbooks with medically deviant African cultural sexual practices that promote the spread of HIV/AIDS. Furthermore the research revealed the most first year health candidates (98%) are aware of such practices.

It is recommended that Malawi's medically deviant cultural practices that promotes HIV/AIDS and mitigation means be included in textbooks and other IEC materials utilized in Psychology and Sociology instruction in health academic institution.

C5. *INTERGRATING SPRITUALISM IN HIV/AIDS ADVOCACY AND BEHAVIOUR CHANGE AMONG YOUTH - A CASE STUDY IN MALDECO AREA, MANGOCHI*

Saukani Andrew; Project Coordinator, Maldeco Catholic Youth Organization Behaviour Change and VCT Awareness Project. [saukaniandrew@yahoo.co.uk]

BACKGROUND;

Malawi is one of the 10 poorest nations in the world with 52.4% of its population livings below the poverty line.
HIV/AIDS prevalence rates are estimated at 14% among the 15 to 49 years age group (2005 Sentinel Surveillance Survey). HIV prevalence continues to increase in rural areas where 85% of the population live.

In Malawi, the issues to do with HIV/AIDS have mainly been considered as a health issue even though the epidemic is cross cutting, hence requiring intervention beyond the health sector.
The central focus is the need to intervene and influence positive behaviour change among the youth who according to statistics are the worst victims. It is always argued to say what the future of the nation will be if the youth are being badly affected by the pandemic.
The Youth are prone to numerous myth and beliefs related to sex and sexuality such that if not properly counseled and get informed there is a possible danger of having a completely doomed youth society. Studies have shown that youth could grasp an issue better if talked about by fellow youth in a youth friendly approach (peer education and awareness).
However, messages being disseminated need to be designed so that they do not send contradicting signals to the receiving audience.

The Impact area; Maldeco in Mangochi is multi – racial, culturally different and economically diverse, evident by different tribes with different moral and cultural understanding on issues. On the economic and tourism front, the area is a hub of fishing business and a tourism hot bed with numerous hotels and resorts.

With these factors in place, strange, weird and loose morals among the youth became a thing of great concern needing an argent awareness intervention that would translate into positive behaviour change in the view of the HIV/ AIDS pandemic.

Realizing that the pandemic does not know religious borders, Maldeco Catholic Youth Organization embarked on a program whose aim was to assist youth grow spiritually and embrace to sound moral and cultural attitudes including an awareness on HIV/ AIDS.
An intervention of instilling positive behaviour change among the youth with a peer friendly approach that emphasizes on religious teaching was assumed to bear considerable positive impact, To this end, the organization sought funding from National Aids Commission (N.A.C) for 9 months long Behavior Change and VCT Awareness Project at a tune of MK1.2 million.
The project catchments area had been 20 km radius from MaldecoTrading Centre.

OBJECTIVE /SCOPE

1. Translate awareness into behaviour change among the youth from different religious backgrounds as in the process create an effective youth to youth dialogue on HIV/ AIDS in the area.

2. Integrate concepts of Hope (extracts from different religious beliefs) in delivering lectures and discussions among the youth.

3. Disseminate messages on behaviour change among youth of the ages 12-25+ from a multi - section of religious denominations in the area so as to achieve a

harmonized understanding on HIV/AIDS among youth regardless of differences in religion.

4. Establish, build capacity and analyze the impact of the youth trainings on multi-and mono faith-based approach.

METHODOLOGY

This was a qualitative study deploying a focus group discussion, narratives, observations and video documentaries.

First step was to create dialogue through training sessions on HIV/ AIDS awareness among the youth of the ages 12 – 25 + from different religious denominations. (Maximum intake per session in an area was 30 with 5 members from each of the available denomination).

Five training sessions designed in a manner that youth participants deliberates on what their religions beliefs says about ways of preventing the pandemic were conducted. Youth from other denominations felt that the programme was part of an evangelization process since they were not in the facilitation team neither coordinating the project. Upon evaluation, it was felt of the need to refocus the approach if a desired outcome would be achieved.

Then training sessions took a new dimension by only involving youth from the same denomination of the age range 12 -25 + (Maximum intake per session 30, only to be selected at random from different youth groupings of a particular church)

In the new approach, Youth patrons and Chairmen attended the three day training.

The youth participants are emphasized upon on behaviour change with a religious touch and complementary use of audio visuals and E.I.C materials as take home packages.

RESULTS

The results became so interesting and gave a food for thought to those implementing youth HIV/AIDS awareness programs for an effective impact.

It was discovered that in the training sessions where there was a mixture of participants from different religious beliefs, it was virtually difficult to agree on certain religious connotations that would assist in shaping a proper behaviour change among the youth in view of the HIV/ AIDS pandemic.

This is justified on a point that the main stream Pentecostals and Moslems upheld the use of condom, divorce and polygamy in strong terms while the Catholic counterparts strongly opposed to these and spoke highly on **A** and **B** (Abstinence and Being faithful to ones opposite sex partner) approach in avoiding the pandemic as a basis of their religious foundations.

In an inter (multi) denomination youth training sessions, it became impossible to compromise on different religious beliefs for a common understanding as each party was defensive to its doctrines, hence a achieving contrally objectives of the program.

It also emerged difficult for youth of other denominations to clearly understand the essence of the program claiming it was part of evangelization by it being initiated and facilitated by youth of a same denomination.

In sessions where youth of the same denominations were grouped together, it was easy to reach to an understanding as far as integration of some religious teachings and doctrines mattered. This gave desired results. The number of youth convinced to undergo a V.C.T was known and their results assisted in building confidence for

behaviour change. Further more cohesion among the youth of the same religion trained at a particular session was improved and monitoring and evaluation became so easy.
It is easy and effective enough to launch other initiatives with such groups since they have a similar agenda unlike the other ones.

RECCOMMENDATIONS
There is need of breaking deep rooted religious beliefs that pose an outright challenge in dealing with some social –cultural norms (polygamy, concubines, divorce) in dealing with HIV/ AIDS advocacy. This will make inter- denominational understanding and partnership on the matter easy as the fight against the pandemic requires concerted and harmonized efforts.

Authority (by provision of resources to youth groups) and coordination among youth socialization institutions need to be strengthened in order to bring about change in the behaviors that predispose the youth to HIV infection.

Denominational level advocacy training that promotes testing and counseling, empowering of religious leaders with knowledge and skills of disseminating messages of mutual faithfulness, engaging youths to respond positively to prevention efforts, and skill-building them to reject intergenerational sexual advances.

Establish a standardized, comprehensive and effective IEC strategy that will reduce the spread of HIV and cope with the impact of the epidemic based on the "Theology of Hope"

C6. Small Scale Rainwater Harvesting For Combating Water Deprivation At Orphan Care Centres In Peri-Urban Areas Of Lilongwe City, Malawi

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Background. It is observed that the premises for roof rainwater harvesting has not captured the imagination and action of institutions beset with peri-urban poverty reduction programs of which water deprivation remains paramount. Various roofed infrastructures in peri-urban areas provide surfaces that generate substantial amount of water. Yet these areas are not well served with tap water. Instead, water is sold through kiosks or obtained from boreholes and shallow wells. Of concern is the realisation that there are resident vulnerable groups that comprise the HIV/AIDS affected and infected, and the orphaned. Over and above pursuit of daily sustenance, they have to contend with purchasing water or prevail over the drudgery associated with fetching it.

Objectives and scope. The objectives of the project were to construct roof rainwater harvesting systems to augment water resources at orphan care centres and to strengthen the capacity of communities in designing and implementing rainwater harvesting systems.

Methodology. Extensive consultations were made to learn about provision of water at orphan care centres in Lilongwe City. A baseline study was conducted at three orphan care centres. Rainwater storage tanks were constructed at each centre using local artisans and cost-sharing partnerships with communities.

Results. The study determined that peri-urban populations were using between 18-27 litres of water per person per day during the critical dry months. Following construction of tanks, rainwater stored lasted up to 12 weeks and households were drawing between 16-24 litres per person per day. A financial analysis showed that the technology was financially viable. The systems provided equity where men and women, able-bodied and afflicted individuals drew water without social complexes and stigmas.

Recommendations. Development partners and government ought to implement roof rainwater harvesting technology particularly for households and communities whose access to water is constrained in varying ways by HIV/AIDS.

C7. Poverty As A Risk Factor For HIV/AIDS

S Bignami-Van Assche[♣] (Université de Montréal), A Van Assche (HEC Montréal), P Anglewicz (University of Pennsylvania) simona.bignami@umontreal.ca

Objectives and scope: Evidence from recent Demographic and Health Surveys in Malawi and other countries indicates that, contrary to common beliefs, poverty is not associated with a higher risk of HIV infection. The main limitation of these analyses is that cross-sectional data only allow identifying associations, and not causal linkages, between wealth and HIV infection. With only cross-sectional data, one cannot know, for example, if a household became poor because an adult member was HIV+ or if the household was poor before the infection occurred. Similarly, cross-sectional data does not permit taking behavior change into account. To properly address the association of poverty and HIV, it is necessary to use longitudinal data. In this paper, we take advantage of behavioral and biomarker data from a large-scale panel survey to evaluate the causal linkages between poverty and HIV infection in rural Malawi.

Methodology: The data for the study were collected by the Malawi Diffusion and Ideational Change Project, a household panel survey that has completed four survey waves (1998, 2001, 2004 and 2006). In this paper we use longitudinal data from the two most recent waves (2004 and 2006), since they included testing for HIV antibodies. Like the well-known Demographic and Health Surveys (DHS), the MDICP does not include questions on income or expenditure, but collects information on several items that measure household ownership of consumer durables, (e.g. bicycles; materials used for housing construction). We use these survey items and a standard procedure (Filmer and Pritchett (2001)), we construct a "wealth index" to quantify differences in household economic status. In order to evaluate the causal relationship between poverty and HIV for the MDICP longitudinal sample, we proceed in two steps. First, we compare the economic status of MDICP respondents infected with HIV in 2004 with respondents who were seronegative. Then, we assess the changes in their economic status and individual HIV serostatus between 2004 and 2006. We use multivariate analysis to assess whether changes in household wealth between the two survey waves are significantly related to changes in individual serostatus.

Results: We do not find evidence that asset ownership, and changes thereof between survey waves, is significantly different between seropositive and seronegative MDICP respondents. Yet the short interval between the two survey waves and the small rate of seroconversions limit the generalizability of these results.

Conclusions: In rural Malawi, as well as is most other countries in sub-Saharan Africa, HIV infections are concentrated among the wealthiest segments of the population. In addition, we find no evidence that households are impoverished by AIDS, at least in the short run.

Recommendations: Further research and analysis are needed at the micro-level to investigate the specific mechanisms through which poverty affects and is affected by HIV infection in Malawi.

C8. Children's School Participation And Hiv/Aids In Rural Malawi: The Role Of Parental Risk Perceptions

Monica J. Grant and C. Mbewe

Objectives and scope

Studies on the relationship between HIV/AIDS and children's educational attainment largely focus on the direct impacts of parental illness and death, overlooking the potential indirect impact that parental perceptions of the HIV epidemic may have on children's school enrollment. This paper examines the potential association between women's perceptions of the probability that they are infected with HIV and the likelihood that their children are enrolled in school.

Methodology
I combine analysis of the 2004 and 2006 survey rounds of the Malawi Diffusion and Ideational Change Project (MDICP) with findings from qualitative interviews with parents collected in summer 2006. The analysis uses nested logistic regressions to examine whether there is a relationship between children's school enrollment and their mother's knowledge of her HIV infection status, her perceived likelihood of infection, and her perception of the future of the HIV epidemic.

Results/Lessons learnt
Findings suggest that a woman's uncertainty about her HIV risk is associated with lower levels of school participation for both older and younger children. Furthermore, if a woman learned her HIV infection status in 2004, her children aged 11-16 are significantly more likely to be enrolled in school in 2006 than the children of women who were not tested. Analysis of the qualitative data reveals that parents use education as a strategy for protecting their children's futures, in particular evoking themes of inheritance and insurance in case a child is orphaned.

Recommendation(s)
Interventions that target risk uncertainty, such as HIV testing programs, may make a significant contribution to maintaining children's educational attainment in communities affected by HIV/AIDS.

Study period
2004-2006

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C9. Enhancing Food Availability Among Plwha Households. The Case Of Ta Msakambewa, Dowa District, Malawi

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Background: Actionaid has been working in partnership with Msakambewa Farmers Association and other CBOs in TA Msakambewa, Dowa district, to support PLWHA groups, women groups and local subsistence farmers in order to improve household availability of food and income, so as to reduce malnutrition and other hunger related diseases.

A brief justification/rationale: Many children are being made vulnerable and orphaned due to HIV and AIDs related illness and death. Women and children have been vulnerable to hunger during some periods of the year when they used to experience food gaps of up to 4 months and could stay for two to three days without food.

Objectives and scope: To improve access to food by women and children made vulnerable by HIV and AIDS.

Methodology: ActionAid mobilised PLWHA groups, women groups and local subsistence farmers to organise themselves and form associations/clubs. A total of 74 farmer clubs and 7 farmer co-operatives have so far been established. ActionAid supported them with a number of interventions as follows: farm inputs (seed, fertiliser); training in small scale irrigation skills; funds to buy materials for construction of village grain banks (warehouses) in 10 villages; initial start up capital for buying maize to stock the grain banks; material support to women groups in 69 villages to grow and market mushrooms as a supplementary source of nutrition and an alternative source of income; and trained women in business management and marketing so that they should take farming as a business in order to get adequate income from the surplus of their crop production.

Results: This helped PLWAs, women and other local farmers to harvest adequate food for their households which has been lasting them through to the next harvesting period. Around 90% of the people provided with farm inputs realised good yields. In addition, stocking of food in grain banks has reduced walking distance in search of food from 11 km to 4km. As a result, women, PLWHA and people with disabilities (3,508 households in and around 12 villages) are able to access food within easy reach. This has led to improved wellbeing of orphans and HIV infected people. Malnutrition and other hunger related diseases are no longer a problem. This has in turn helped orphans and other children to attend school regularly (reduced absenteeism and drop out) because of food sufficiency at household level. This has further helped to improve household income from sale of surplus food which they have been using to buy drugs and other basic necessities. This also helped to strengthen linkage among local community groups (PLWHA, women and youth groups), health facilities and others institutions/NGOs such as NASFAM, FUM, MSF and Concern Worldwide.

Recommendation

There is need to: promote further livelihood interventions for women living with HIV in order to improve food availability and access to income among PLWHA households; strengthen linkages/collaboration between women living with HIV and other institutions, in order to effectively advocate for their right to food and enhance programme continuity and sustainability.

C10. Reasons For Loss To Follow Up Among Mothers Registered In A Prevention Of Mother To Child Transmission In Rural Malawi.

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[4] *HIV Unit, Ministry of Health, Lilongwe, Malawi & Management Sciences for Health,* ***USA***

SETTING: *Thyolo district, rural Malawi.*

OBJECTIVES: To identify reasons for progressive loss to follow up among HIV-positive mothers registered within a Prevention-of-Mother-To-Child HIV Transmission (PMTCT) program at a district hospital.

DESIGN: Qualitative study.

METHODS: Focus group discussions with antenatal and post-natal mothers and nurse midwives.

RESULTS: A total of 25 women (median age 39 years, range 22-55 years) were involved in three focus-group discussions. The main reasons for loss to follow up included a) not being prepared for HIV-testing and its implications prior to the antenatal care visit b) fear of stigma, discrimination, house-hold conflict and even divorce on disclosure of HIV status d) lack of support from husbands who do not want to undergo HIV testing e) the feeling that one is obliged to rely on artificial feeding which is associated with social and cultural taboos f) long waiting times at the antenatal services, g) inability to afford transport costs related to the long distances to the hospital.
CONCLUSIONS: This study reveals a number of community and provider related operational barriers hindering the overall acceptability of PMTCT that need to be urgently addressed. Mothers attending antenatal services need to be better informed and supported both at community and health provider level.

Contact details:
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C11. Intergrating Spritualism In Hiv/Aids Advocacy And Behaviour Change Among Youth - A Case Study In Maldeco Area, Mangochi

Saukani Andrew; Project Coordinator, Maldeco Catholic Youth Organization Behaviour Change and VCT Awareness Project.

BACKGROUND;

Malawi is one of the 10 poorest nations in the world with 52.4% of its population livings below the poverty line.
HIV/AIDS prevalence rates are estimated at 14% among the 15 to 49 years age group (2005 Sentinel Surveillance Survey). HIV prevalence continues to increase in rural areas where 85% of the population live.

In Malawi, the issues to do with HIV/AIDS have mainly been considered as a health issue even though the epidemic is cross cutting, hence requiring intervention beyond the health sector.

The central focus is the need to intervene and influence positive behaviour change among the youth who according to statistics are the worst victims. It has always been argued as to what future the nation will have if youth continue to be badly affected by the pandemic?
The Youth are prone to numerous myth and beliefs related to sex and sexuality such that if not properly counseled and get informed there is a possible danger of having a completely doomed youth society. Studies have shown that youth could grasp an issue better if talked about by fellow youth in a youth friendly approach (peer education and awareness).
However, messages being disseminated need to be designed so that they do not send contradicting signals to the receiving audience.

The Impact area; Maldeco in Mangochi is multi – racial, culturally different and economically diverse, evident by different tribes with different moral and cultural understanding on issues. On the socio - economic and tourism front, the area is a hub of fishing business and a tourism hot bed with numerous hotels and resorts.

With these factors in place, strange, weird and loose morals among the youth became a thing of concern needing argent awareness intervention that should translate into positive behaviour change in the view of the HIV/ AIDS pandemic.

Realizing that the pandemic does not know religious borders, Maldeco Catholic Youth Organization embarked on a program whose aim was to assist youth grow spiritually and embrace to sound moral and cultural attitudes including an awareness on HIV/ AIDS.
An intervention of instilling positive behaviour change among the youth with a peer friendly approach emphasizing on religious teachings was assumed to bear considerable positive impact, To this end, the organization sought a MK1.2 million funding from National Aids Commission (N.A.C) for 9 months long Behavior Change and VCT Awareness Project.
The project catchments area had been 20 km radius from MaldecoTrading Centre.

OBJECTIVE /SCOPE

1. Translate awareness into behaviour change among the youth from different religious backgrounds in the process create an effective youth to youth dialogue on HIV/ AIDS in the area.

2. Integrate concepts of Hope (extracts from different religious beliefs) in delivering lectures and discussions among the youth.

3. Disseminate messages on behaviour change among youth of the ages 12-25+ from a multi - section of religious denominations in the area so as to achieve a

harmonized understanding on HIV/AIDS among youth regardless of differences in religion.

4. Establish, build capacity and analyze the impact of the youth trainings on multi-and mono faith-based approach.

METHODOLOGY

A qualitative study approach, deploying focus group discussion, narratives, observations and video documentaries was employed.

First step was to create dialogue through training sessions on HIV/ AIDS awareness among the youth of the ages 12 – 25 + from different religious denominations. (Maximum intake per session in an area was 30 comprising 5 members from each of the available denomination).

Five training sessions each lasting for 3 days were designed in a manner that youth participants deliberates on what their religions beliefs says about the HIV/AIDS and ways of preventing it were conducted. Youth from other denominations felt that the programme was part of an evangelization process since they were not in the facilitation team neither coordinating the project. Upon evaluation of the first five training sessions, it was felt of the need to refocus the approach if a desired outcome would be achieved.

Then training sessions took a new dimension by only involving youth from the same denomination of the age range 12 -25 + (Maximum intake per session 30, only to be selected at random from different youth groupings of a particular church)

In the new approach, Youth patrons and Chairmen attended the three day training.

The youth participants are emphasized upon on behaviour change with a religious touch and complementary use of audio visuals and E.I.C materials as take home packages.

RESULTS

The results became so interesting and gave a food for thought to those implementing youth HIV/AIDS awareness programs for an effective impact.

It was discovered that in the training sessions where there was a mixture of participants from different religious beliefs, it was virtually difficult to agree on certain religious connotations that would assist in shaping a proper behaviour change among the youth in view of the HIV/ AIDS pandemic as each party considered its views and opinions as superior over the other, and this lead to difficulties in reaching a common understanding.

This is justified on a point that the main stream Pentecostals and Moslems upheld the use of condom, divorce and polygamy in strong terms while the Catholic counterparts strongly opposed to these and spoke highly on **A** and **B** (Abstinence and Being faithful to ones opposite sex partner) approach in avoiding the pandemic as a basis of their religious foundations.

In an inter (multi) denomination youth training sessions, it became impossible to compromise on different religious beliefs for a common understanding as each party was defensive to its doctrines, hence a achieving contrally objectives of the program.

It also emerged difficult for youth of other denominations to clearly understand the essence of the program claiming it was part of evangelization by it being initiated and facilitated by youth of a same denomination.

In sessions where youth of the same denominations were grouped together, it was easy to reach to an understanding as far as integration of some religious teachings and doctrines mattered. This gave desired results. The number of youth convinced to undergo a V.C.T was known and their results assisted in building confidence for behaviour change. Further more cohesion among the youth of the same religion trained at a particular session was improved and monitoring and evaluation became so easy.
It is easy and effective enough to launch other initiatives with such groups(mono religious) since they share a similar agenda unlike a multi religious grouping.

RECCOMMENDATIONS
There is need of breaking deep rooted religious beliefs that pose an outright challenge in dealing with some social –cultural norms (polygamy, concubines, divorce) in dealing with HIV/ AIDS advocacy. This will make inter- denominational understanding and partnership on the matter easy as the fight against the pandemic requires concerted and harmonized efforts.

Programming and coordination among youth socialization institutions need to be strengthened in order to bring about change in behaviors that predispose the youth to HIV infection.

Denominational level advocacy training that promotes testing and counseling, empowering of religious leaders with knowledge and skills of disseminating messages of mutual faithfulness, engaging youths to respond positively to prevention efforts, and skill-building them to reject intergenerational sexual advances.

Establish a standardized, comprehensive and effective IEC strategy that will reduce the spread of HIV and cope with the impact of the epidemic based on the **"Theology of Hope"**

This would be a solo presentation once considered for the conference all correspondences be emailed to saukaniandrew@yahoo.co.uk

C12. Poverty As A Risk Factor For HIV/AIDS

S Bignami-Van Assche[♣] (*Université de Montréal*), A Van Assche (*HEC Montréal*), P Anglewicz (*University of Pennsylvania*)
Objectives and scope: Evidence from recent Demographic and Health Surveys in Malawi and other countries indicates that, contrary to common beliefs, poverty is not

associated with a higher risk of HIV infection. The main limitation of these analyses is that cross-sectional data only allow identifying associations, and not causal linkages, between wealth and HIV infection. With only cross-sectional data, one cannot know, for example, if a household became poor because an adult member was HIV+ or if the household was poor before the infection occurred. Similarly, cross-sectional data does not permit taking behavior change into account. To properly address the association of poverty and HIV, it is necessary to use longitudinal data. In this paper, we take advantage of behavioral and biomarker data from a large-scale panel survey to evaluate the causal linkages between poverty and HIV infection in rural Malawi.

Methodology: The data for the study were collected by the Malawi Diffusion and Ideational Change Project, a household panel survey that has completed four survey waves (1998, 2001, 2004 and 2006). In this paper we use longitudinal data from the two most recent waves (2004 and 2006), since they included testing for HIV antibodies. Like the well-known Demographic and Health Surveys (DHS), the MDICP does not include questions on income or expenditure, but collects information on several items that measure household ownership of consumer durables, (e.g. bicycles; materials used for housing construction). We use these survey items and a standard procedure (Filmer and Pritchett (2001)), we construct a "wealth index" to quantify differences in household economic status. In order to evaluate the causal relationship between poverty and HIV for the MDICP longitudinal sample, we proceed in two steps. First, we compare the economic status of MDICP respondents infected with HIV in 2004 with respondents who were seronegative. Then, we assess the changes in their economic status and individual HIV serostatus between 2004 and 2006. We use multivariate analysis to assess whether changes in household wealth between the two survey waves are significantly related to changes in individual serostatus.

Results: We do not find evidence that asset ownership, and changes thereof between survey waves, is significantly different between seropositive and seronegative MDICP respondents. Yet the short interval between the two survey waves and the small rate of seroconversions limit the generalizability of these results.

Conclusions: In rural Malawi, as well as is most other countries in sub-Saharan Africa, HIV infections are concentrated among the wealthiest segments of the population. In addition, we find no evidence that households are impoverished by AIDS, at least in the short run.

Recommendations: Further research and analysis are needed at the micro-level to investigate the specific mechanisms through which poverty affects and is affected by HIV infection in Malawi.

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C.13. Children's School Participation And Hiv/Aids In Rural Malawi: The Role Of Parental Risk Perceptions

Monica J. Grant and C. Mbewe

Objectives and scope

Studies on the relationship between HIV/AIDS and children's educational attainment largely focus on the direct impacts of parental illness and death, overlooking the potential indirect impact that parental perceptions of the HIV epidemic may have on children's school enrollment. This paper examines the potential association between women's perceptions of the probability that they are infected with HIV and the likelihood that their children are enrolled in school.

Methodology
I combine analysis of the 2004 and 2006 survey rounds of the Malawi Diffusion and Ideational Change Project (MDICP) with findings from qualitative interviews with parents collected in summer 2006. The analysis uses nested logistic regressions to examine whether there is a relationship between children's school enrollment and their mother's knowledge of her HIV infection status, her perceived likelihood of infection, and her perception of the future of the HIV epidemic.

Results/Lessons learnt
Findings suggest that a woman's uncertainty about her HIV risk is associated with lower levels of school participation for both older and younger children. Furthermore, if a woman learned her HIV infection status in 2004, her children aged 11-16 are significantly more likely to be enrolled in school in 2006 than the children of women who were not tested. Analysis of the qualitative data reveals that parents use education as a strategy for protecting their children's futures, in particular evoking themes of inheritance and insurance in case a child is orphaned.

Recommendation(s)
Interventions that target risk uncertainty, such as HIV testing programs, may make a significant contribution to maintaining children's educational attainment in communities affected by HIV/AIDS.

Study period
2004-2006

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C.14 Effectiveness Of A Peer Group Intervention For Health Workers And Rural Adults In Malawi

Symposium Overview

Moderator: Chrissie P. N. Kaponda,

HIV prevention is still a priority strategy in Malawi and other sub-Saharan African countries, especially in rural areas where over 80% of the population resides. However, few rural HIV prevention interventions have been offered. Barriers include lack of trained personnel, transportation difficulties, and rural residents' limited influence on health policy.

This symposium presents results of a National Institute of Health (NIH) funded research project testing the impact of a peer group intervention for HIV prevention in rural Malawi. The study was conducted in Central region using Ntcheu as an intervention and Dedza as a control district. Trained volunteer health workers from Ntcheu and community residents collaborated to provide the intervention. We also expanded the intervention to health workers at Kamuzu Central Hospital, an urban Central hospital where patients from central region hospitals are referred.

This symposium presents six related papers describing the impacts of the *Mzake ndi Mzake* intervention on the personal HIV-related knowledge, attitudes and behaviors of rural health workers, rural adults, and urban health workers. Occupation-related HIV prevention activities of the rural health workers are also described. The peer group intervention had positive impacts for all three of these groups.

Health workers have the potential to be HIV prevention leaders in their workplace and communities. Peer group intervention based on social-cognitive learning can enhance their capacity to be role models and leaders. Collaboration of rural health workers and communities provides an effective, affordable and acceptable way to deliver HIV prevention interventions to rural Malawi, overcoming many barriers to rural HIV prevention programs.

Symposium Presentations

1. MZAKE NDI MZAKE – IMPLEMENTING A PEER-GROUP INTERVENTION FOR MULTIPLE TARGET GROUPS WITH INTERVENTION FIDELITY AND OVERVIEW OF OUTCOMES, C. P.N. Kaponda, K. F. Norr, D.L. Jere, S. I. Kachingwe, M. M. Mbeba, L. L. McCreary.

2. THE EFFECT OF A PEER-GROUP INTERVENTION ON PERSONAL HIV PREVENTION AMONG RURAL HEALTH WORKERS, D. L. Jere, M. M. Mbeba, S. I. Kachingwe, M. L. Talashek, J. L. Norr, K. F. Norr, C.P.N. Kaponda.

3. THE EFFECT OF A PEER-GROUP INTERVENTION ON HIV RISK FACTORS AMONG RURAL ADULTS, L. L. McCreary, M. M. Mbeba, C. P.N. Kaponda, K. F. Norr, S. I. Kachingwe,

4. THE EFFECT OF A PEER-GROUP INTERVENTION ON HIV RISK FACTORS AMONG RURAL ADOLESCENTS, S. I. Kachingwe, B. L. Dancy, C. P. N. Kaponda, K. S. Crittenden

5. THE EFFECT OF A PEER-GROUP INTERVENTION ON PERSONAL HIV PREVENTION AMONG URBAN HOSPITAL WORKERS, J. L. Chimango, A. Chimwaza, C. P N. Kaponda, K. Norr, K. Crittenden, D.L. Jere.

6. IMPACT OF PEER-GROUP EDUCATION FOR UNIVERSAL PRECAUTIONS AND CLIENT TEACHING AMONG URBAM AND RURAL HEALTH WORKERS, K. F. Norr, J. L. Norr, C. P. N. Kaponda, J. Chimango, A. Chimwaza, D.L. Jere, S. I. Kachingwe, M. M. Mbeba

Acknowledgement for Entire Symposium: Funding for this research was provided by the National Institute for Nursing Research (NR 08085) and the World AIDS Foundation.

C.15. Mzake Ndi Mzake – Implementing A Peer Group Intervention For Multiple Target Groups With Intervention Fidelity

C. P.N. Kaponda, K. F. Norr, D.L. Jere, S. I. Kachingwe, M. M. Mbeba, L. L. McCreary
Kamuzu College of Nursing, U. of Malawi and University of Illiniois at Chicago

Background: Effective HIV prevention interventions are needed, especially in rural areas. Peer group interventions are effective, but not widely implemented in these communities.

Objectives and scope: The Mzake ndi Mzake peer group intervention integrates the social cognitive learning behavioral change model and the WHO primary health care model. This presentation describes implementation, participants reached, and the process evaluation used to document the fidelity of the intervention.

Methodology: Using a community participatory approach, we trained 350 health workers (clinical and non-clinical) and 32 community leaders. Using trained health worker and community volunteers as facilitators, the project offered a 6 session peer group intervention for HIV prevention to 2200 adults and a 10-session peer group intervention to 350 Health workers in Ntcheu and offered a delayed intervention to over 300 health workers at Dedza district hospital, the control district. Also, the project, health workers and community members adapted the peer group intervention for HIV prevention for adolescents. Respected adults and health workers offered the intervention to 1500 adolescents in Ntcheu. We also offered the 10 -session intervention to 855 health workers at Kamuzu Central Hospital, an urban referral hospital. To ensure intervention fidelity, we observed randomly selected groups using a structured observation forms.

Results: Process evaluation documented high group engagement, peer leader facilitative techniques, accurate content, and a peer group atmosphere. Knowledge, attitudes toward condoms and HIV testing, self-efficacy and community HIV prevention activities increased for all groups and condom attitudes increased for all three adult groups. Risky sexual behaviors decreased for district health workers and adults. Condom use increased among sexually active adults and adolescents. Only urban health workers showed no safer sex improvements. Urban and district health workers showed increases in universal precautions and client teaching about HIV AND AIDS.

Conclusion: Health worker-community collaboration is a feasible, effective and low cost way to bring HIV prevention to rural areas. Trained volunteers can facilitate a peer group intervention with fidelity.

Recommendations: The Mzake ndi Mzake model is accessible, affordable, acceptable, and sustainable with local resources, and should be expanded to other communities. Intervention fidelity when using volunteers can be documented through structured observation.

Acknowledgement: Funding was provided by the National Institute for Nursing Research (NR 08085) and the World AIDS Foundation.

C.16 The Effect Of A Peer-Group Intervention On Personal Hiv Prevention Among Rural Health Workers

D. L. Jere, M. M. Mbeba, S. I. Kachingwe, M. L. Talashek, J. L. Norr,
K. F. Norr, C. P. N. Kaponda Kamuzu College of Nursing, U. of Malawi and University of Illinois at Chicago

Background: Health workers can play a major role as HIV prevention leaders but previous research shows that they have the same misconceptions, negative attitudes and risky behaviors common among the general public.

Objectives and Scope: To examine the impact of a peer group intervention on rural health workers' personal knowledge, attitudes and behaviors.

Methodology: A quasi-experimental design tested the intervention in two districts randomly assigned to the intervention (I) or control (C) condition. Independent samples of clinical and non-clinical health workers from both district hospitals and 10 rural health centers were interviewed at baseline [n: C-148, I-188], mid-term 15 months post-intervention (n: C-93; I-99), and final evaluation 30 months post-intervention (n: C-196; I-221). Over 40 health workers volunteered to be community peer group facilitators.

Results: At midterm and final, intervention district health workers had higher HIV knowledge and more positive attitudes, including less blaming of persons with HIV, more positive views about HIV-status disclosure and casual contact, more positive attitudes toward condoms and HIV testing, higher self-efficacy for safer sex and discussing HIV, and more reported discussion of safer sex with partner(s). At midterm risky sexual behaviors did not differ, but at the final evaluation health workers in the intervention district had fewer risky sexual behaviors (5-item index) and were less likely to be sexually active. They did not report more condom use. They were more likely to have had a recent HIV test at the final evaluation, and engaged in more community HIV prevention activities at midterm and final.

Conclusion: Peer group education positively affects rural health workers' HIV-related knowledge, attitudes, personal behaviors, and work-related practice of universal precautions and HIV prevention teaching.

Recommendations: Peer groups for HIV prevention should be made available to district health workers. Increasing health workers' knowledge, positive attitudes and personal behaviors has the potential to reduce their HIV-related mortality and morbidity and to increase their ability to be role models to others.

Acknowledgement: Funding was provided by the National Institute for Nursing Research (NR 08085) and the World AIDS Foundation.

C.17. The Effect Of A Peer-Group Intervention On Hiv Risk Factors Among Rural Adults

L. L. McCreary, M. M. Mbeba, C. P.N. Kaponda, K. F. Norr, S. I. Kachingwe
Kamuzu College of Nursing, U. of Malawi and University of Illinois at Chicago

Background: Rural adults need HIV prevention interventions. Peer groups have been found to be effective, but few such programs have been available for rural residents.

Objectives and Scope: To examine the impact of a peer group intervention on rural adults' personal knowledge, attitudes and behaviors.

Methodology: A quasi-experimental design tested the intervention in two districts randomly assigned to the intervention (I) or control (C) condition. Independent random samples of adults from communities in both districts were interviewed at baseline (n: C-523; I-625), mid-term 15 months post-intervention (n: C-176; I-180), and final evaluation 30 months post-intervention (n: C-419; I-415). This method gives a picture of changes throughout the community, not just for participants. Also, many adults volunteered to be community peer group facilitators for other adults and for adolescents.

Results: Intervention district adults had higher HIV knowledge and expressed more positive views about HIV-status disclosure. They expressed less blaming of persons with HIV and more acceptance of casual contact at midterm, but not at the final (because the control district improved). Intervention district adults also had higher self-efficacy for safer sex and general HIV discussion, more reported discussion of safer sex with partner(s), fewer risky sexual behaviors (5-item index) and more reported condom use among those who were sexually active at both midterm and final evaluations. More intervention district adults had an HIV test at the final evaluation. They engaged in more community HIV prevention activities at both the midterm and final evaluation.

Conclusion: The Mzake ndi Mzake peer group intervention was supported by rural communities and leaders. The intervention positively affected rural adults' HIV-related knowledge, attitudes, safer sex and community prevention behaviors.

Recommendations: Peer groups for HIV prevention should be made available to rural communities. The Mzake ndi Mzake intervention is acceptable to rural communities and feasible for rural areas if local health workers are engaged in the program as peer group facilitators.

Acknowledgement: Funding was provided by the National Institute for Nursing Research (NR 08085) and the World AIDS Foundation.

C.18 The Effect Of A Peer-Group Intervention On Hiv Risk Factors Among Rural Adolescents

S. I. Kachingwe, B. L. Dancy, C. P. N. Kaponda, K. S. Crittenden
Kamuzu College of Nursing, U. of Malawi and University of Illiniois at Chicago

Background: Adolescents are especially vulnerable to HIV and many adolescents tend to rely on peers for information and guidance. Therefore, community-based HIV prevention for adolescents is needed.
Objectives and Scope: To identify the impacts of a peer group intervention for rural adolescents' personal knowledge, attitudes and practices.
Methodology: A six session adolescent intervention, designed collaboratively with community leaders and parents, was facilitated by community-approved adults. A quasi-experimental design tested the effectiveness in two rural districts randomly assigned to the intervention (I) or control condition. Independent random samples of adolescents (10-19) were interviewed in both districts at baseline (n: C-211; I-315) and at the final evaluation 12 months post-intervention (n: C-404; I-415). Parents did not want explicit content on sexuality or condoms to be discussed with adolescents under 16 and details of this content were excluded.
Results: Adolescents in the intervention district had higher knowledge of HIV AND AIDS and prevention strategies. They did not differ in their blaming of persons with HIV, but intervention adolescents had greater acceptance of HIV status disclosure and contact with persons with HIV, more positive attitudes toward HIV testing, higher self-efficacy for talking about HIV prevention in the community and practicing safer sex, and more discussion of safer sex with partners. Adolescents' positive condom attitudes did not differ after the intervention but were more positive than adults in both districts. There was no difference in whether currently sexually active or risky sexual behaviors, but sexually active adolescents in the intervention district reported more condom use (45% always vs. 20%). Intervention adolescents were more likely to have an HIV test and reported more community HIV prevention activities.
Conclusions: A peer group intervention for HIV prevention was effective for rural adolescents. Community restrictions hampered full teaching for younger adolescents, potentially decreasing impact, but after the intervention parents became more comfortable with the content for younger adolescents.

Recommendations: Community-based peer groups are an important HIV prevention strategy for rural youth. Community collaboration is important to provide acceptable and effective interventions.

Acknowledgement: Funding was provided by the National Institute for Nursing Research (NR 08085) and the World AIDS Foundation.

C.19 The Effect Of A Peer-Group Intervention On Personal Hiv Prevention Among Urban Hospital Workers

A. Chimwaza, J. Chimango, K. Norr, K. Crittenden, C.P.N. Kaponda, D.L. Jere,
Kamuzu College of Nursing, U. of Malawi and University of Illiniois at Chicago

Background: Health workers often have negative HIV knowledge, attitudes and behaviors similar to the general public, but rarely receive interventions focused on personal HIV prevention. A peer group intervention used for rural health workers was introduced for urban health workers at Kamuzu Central Hospital.
Objectives and Scope: To describe the impact of the intervention on personal HIV prevention for urban health workers.
Methodology: Trained volunteer health workers and project staff provided a 10-session peer group HIV prevention intervention to 855 workers at all levels at a large urban hospital. Random surveys of workers before (n=366) and 8 months after the intervention (n=541) assessed the impact of the intervention on their personal behaviors.
Results: After the intervention, the health workers had significantly higher AIDS knowledge and attitudes more favorable to HIV prevention, including less blaming of persons with HIV, greater acceptance of disclosure of HIV status, and more positive attitudes toward condom use and HIV testing. However, acceptance of contact with persons living with AIDS was already at the top of the scale at baseline. Safer sex behaviors did not increase, although other HIV-prevention related behaviors were more favorable after the intervention, including more partner communication about safer sex, more HIV testing, and greater reported involvement in community HIV prevention activities.
Conclusions: A peer group intervention improved urban workers' HIV-related knowledge, attitudes, and some personal behaviors. Unlike rural health workers, urban workers did not change their safer sex behaviors. Urban workers may have had fewer behavior changes because the project was shorter, more emphasis was placed on in-hospital prevention than personal change, or because urban workers did not become community peer group facilitators.

Recommendations: Peer groups for HIV prevention should be made available for health workers in all hospitals, but the focus on personal safer sex behaviors needs to be strengthened for urban health workers.

Acknowledgement: Funding was provided by the National Institute for Nursing Research (NR 08085) and the World AIDS Foundation.

C.20 Impact Of Peer- Group Education For Universal Precautions And Client Teaching Among Urban And Rural Health Workers

K. F. Norr, J. L. Norr, C. P. N. Kaponda, J. Chimango, A. Chimwaza, D. L. Jere, S. I. Kachingwe, M. M. Mbeba. M. L. Talashek Kamuzu College of Nursing, U. of Malawi and University of Illiniois at Chicago

Background: Health workers in Africa and elsewhere use universal precautions inconsistently and do not use opportunities to teach HIV prevention. Peer group training focused on skill-building can help health workers practice HIV prevention at work in the health care system.

Objectives and Scope: To describe changes in universal precautions and HIV prevention client teaching for urban health workers at Kamuzu Central Hospital (KCH) and rural district health workers after they received the Mzake ndi Mzake peer group intervention.

Methodology: Health worker interviews, observations and client satisfaction interviews were used to evaluation the impact of this intervention. District heath workers were compared to a control district at baseline, midterm, and 30 months after the intervention. A pre and post intervention evaluation was used for KCH because potential contamination made a control group difficult.

Results: Observed and reported hand washing increased for both groups after the intervention. Workers did not report more glove use but had higher observed glove use. Reported and observed HIV teaching increased for both groups. At KCH, observed overall teaching, respectful treatment and use of demonstrations for more effective teaching also increased. The district client satisfaction interviews at midterm found no difference in HIV teaching but clients rated health workers as more respectful. Final district satisfaction interviews have not yet been analyzed. For KCH, clients reported more positive ratings of services and more frequent discussion of HIV AND AIDS topics with health workers.

Conclusions: Universal precautions and HIV prevention teaching to clients increased after district health workers and KCH workers received a peer group intervention for HIV prevention. Use of observations, self-reports, and client reports enhance data quality.

Recommendations: Peer groups for HIV prevention should be made available for health workers to enhance the overall quality of health services, including use of universal precautions, HIV teaching to clients, and improved client satisfaction with services.

Acknowledgement: Funding was provided by the National Institute for Nursing Research (NR 08085) and the World AIDS Foundation.

C.21.**Tiwoloke Project: An Hiv/Aids Behaviour Change Initiative For Teachers In Malawi's Primary Schools.**

Khonyongwa Lawrence (Project Coordinator)

Objectives and scope

The purpose of the project is "To empower primary school teachers and their partners with necessary knowledge and skills to reduce vulnerability to HIV/AIDS and promote a healthy life." The promotion of behaviour change and health seeking behaviour aims to reduce the number of new HIV infections, and improve access to treatment, care and support for those infected and affected by HIV/AIDS. The following were the objectives of the project:

1. To strengthen the capacity of primary school teachers and their partners for positive HIV/AIDS behaviour change.
2. To develop Behaviour Change Communication materials for behavioural change among teachers.
3. To strengthen the capacity of the Ministry of Education to manage HIV/AIDS programmes district and zone level.
4. To monitor and analyse informative data from programme management and implementation to inform programme direction and achieve planned impact.

Methodology

Using stepping stones training methodology equal numbers of male and female participants selected by Education districts are trained during a residential Training of Trainers workshop that lasts 10 days. These trainers one male and one female selected from each zone then organise and conduct Tiwoloke sessions with teachers and their spouses in their zones with support from Primary Education Advisors and the District Education Managers. In the interactive workshop sessions the teachers analyse sexual and reproductive health issues, communication and relationship skills and ways to change behaviour in the face of HIV/AIDS. During the workshops participants develop action plans that are then implemented. All workshops take place during the holidays.

Results

In the period the project has been in operation about 7,000 teachers and their spouses have been trained with noticeable positive results. One of the immediate outcomes of the workshops is the increase in the number of people going for HIV Counselling and testing and those declaring their HIV status. This has resulted in the formation of a network of teachers living with HIV/AIDS. Teachers and spouses that have participated in the programme also report of increased openness in their families and a greater understanding of their sex and sexuality. Increased sexual satisfaction has contributed to a reduction in risky sexual behaviour. Teachers and their spouses have also reported improved management of family resources and better resolving of family conflicts. Tiwoloke has managed to break some cultural barriers that have prevented women from availing their potential in the family.

C.22 Coverage and equity of HIV counselling and testing among mothers in Mchinji district

T. Phiri [†]; S. Jale [†]; S. Lewycka [†]*; M. Rosato [†]*; H. Chapota[†]; C. Mwansambo ^; P. Kazembe [#]; and A. M de L. Costello *

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[#] *Baylor College of Medicine Children's Foundation, Malawi*
* *Centre for International Health and Development, Institute of Child Health, University College London*

Background: VCT has been available to people in Mchinji district since 2005 in four locations – the district hospital, Kapiri mission hospital, Mkanda health centre, and St. Gabriels mission hospital (in Lilongwe district).

Objectives and scope: An assessment of the absolute coverage and equitable coverage of VCT among mothers in Mchinji district

Methodology: A prospective surveillance system for pregnancies, births and maternal and newborn deaths was established, by MaiMwana Project, in a rural population of 150,000 in Mchinji district. Mapping and census of 48 population clusters identified 30,000 households with 35,000 women of child-bearing age. 5729 live births were reported in the baseline period of January 2005 to December 2005 and followed up with a one-month postnatal questionnaire administered to mothers to identify birth outcomes, morbidities and utilization of key interventions including VCT.

Lessons learnt: Over one quarter (28%) of mothers reported having gone for VCT with the highest proportion of these going to St Gabriels mission hospital (26.4%) and the majority during an antenatal visit (75.7%). Low uptake of VCT may in part be related to lack of knowledge of available services as only 59.1% of mothers knew a location where it was available and only one third (32.9%) of women knew that it was offered at the district hospital. Less than one quarter (24.6%) of mothers who accessed VCT had done so with their partners and this may in part be due to a lack of confidence to discuss these issues within the family as only half (49.5%) of mothers had discussed HIV issues with their husbands. Over three quarters (79.1%) of mothers who accessed VCT received their results. There is no clear difference between the poorest and the least poor in terms of discussing HIV with their partners, whether they go with their partners and whether they collect their results. However, there is a marked difference between the poorest and least poor quintile in relation to knowledge of where to get VCT and actually going for VCT (knowing where to get VCT – poorest 47.2%, least poor 66.6%; going for VCT – poorest 23.4%, least poor 37.2%).

Conclusions: The data suggests that in this population of mothers there is still a lack of knowledge of availability of VCT despite it being offered in 4 locations. This is contributing to low uptake by this population particularly amongst the poorest quintiles.

Study period: January 2005 – December 2005 **Track:** C

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C23. Economic And Subjective Well-Being Effects Of Hiv Testing

Rebecca L. Thornton, University of Michigan

Background:
If individuals are unsure about their infection status, receiving an HIV positive or negative diagnosis may affect their subjective life expectancy, which could lead to important economic and psychological consequences of HIV testing.
Objectives and scope:
This paper measures the effects of learning HIV test results using data from Balaka, Rumphi, and Mchinji. Individuals were given randomized benefits and costs to learn their results, creating an experimental treatment and control group of those who learned and who did not learn their HIV status. Two years after testing, respondents were re-interviewed.
Results
Using an instrumental variables technique, HIV negatives who learned their status saved significantly *more* and HIV positives who learned their status saved significantly *less* than those who did not learn their status. There were no other significant impacts on time use, expenditures, income, or assets. However, HIV positives who learned their status were significantly more happy, had higher levels of self-reported health, and less likely to be depressed than those who did not learn their HIV status. Consistent with these results, HIV positives who knew their results spent significantly less on medical expenditures. On the other hand, there is evidence that these HIV positives may have begun to deny that they were infected with the disease, as measured by subjective likelihoods of infection.
Conclusions:
Savings rates after learning HIV results were substantially altered among HIV positives and negatives but there were few persistent economic effects of HIV testing suggesting functioning informal insurance networks which could be helping to mitigate the economic effects of the disease. Learning HIV positive test results significantly increased subjective well-being suggesting either psychological gains to learning results, or that these individuals have started ARV therapy.

Recommendations:
If one of the objectives of HIV testing is to change individuals' posterior beliefs of infection to increase investments in health and economics, more frequent testing might be necessary. HIV positives should be counseled so that regardless of increases in health due to ARV therapy, that they are still infected and can infect others.

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TRACK D: ORGANIZATION DEVELOPMENT AND CAPACITY BUILDING

The Track focuses on research-based lessons on effective organizational set up and development support initiatives, organization of responses and issues of capacity to respond effectively at all levels. It also seeks to draw lessons on the best models and designs as well as strategies for capacity development support..

D1.Good Use Of Data Helps Scale Up Quality Services

C. Osborne, and R. Tolani

Background:
With USAID funding, Save the Children Umoyo Network supports fifteen NGOs serving two million people of eighteen districts in Malawi. The NGOs provide HIV related services, such as prevention, counseling and testing, prevention of mother to child transmission, and palliative care.

Objectives and scope:
To help NGOs develop strong monitoring systems with good use of data.

Methodology:
Umoyo Network facilitated baseline assessments to check the quality of the NGOs work and the integrity of their management information systems. The NGOs used the outcome of those assessments to build their capacity through training, technical assistance and on-site mentoring from Umoyo staff. The NGOs developed their management information systems to collect disaggregated data and monitor changes over time. That helped them to make decisions about expanding the program and improving the quality of work.
Together the NGOs and Umoyo Network regularly assessed the quality of data collected by all volunteers and staff at all levels of the system.

Results:
Through analyzing data the NGOs identified that women were less served by counseling and testing services; so they opened outreach sites in rural areas attached to the maternal and child health clinics and women's attendance increased.
Young adults were using the services less; the NGOs focused on improving youth friendly services and more young adults attended.
Assessments of quality showed gaps in infection prevention and counseling practices; the NGOs set up quality improvement teams and focused on failing areas. That enabled the NGOs to work towards national standards.
Managers and donors had more confidence in the data because of this thorough approach.

Conclusions:
Good management information systems are essential for planning the scale up of services

Recommendations:
Support agencies should assist organisations to build their capacity in monitoring systems as well as providing resources for service delivery. Program managers should actively use data to improve the quality of their work.

D2. Counting The Costs Of HIV/AIDS

R. James, B. Katundu and J. Mbuna

Background Information

Most of the research that were done on effects or impact of HIV/AIDS in the work place, focused on enumerating the costs that organizations incur when employees passes on because of HIV/AIDS. These costs were mainly enumerated in expenses organizations incur in medical (treatment), training of employee or funeral expenses. Very few researches had made attempts to go beyond what other costs organization incur because of HIV/AIDS. This research done in 10 civil society organizations in Malawi and whose findings were compared regionally (Uganda and Tanzania) was done to fill that gap.

Objectives

The research was done with the following major objective: to assess the economic costs of HIV/AIDS infection on the organisational capacities of selected CSOs.

Methodology

The research methodology involved developing tools which included a developing leadership Impact Questionnaire which all sampled CSOs were supposed to fill. In every CSOs that was sampled the questionnaire was administered to about 3-4 senior staff members. Interviews were conducted asking for any relevant documentation and interviews. (preferably on one particular day with the same organization.)

The data that came up was analyzed for each sampled CSOs. From these results, a synthesis was made and it is this synthesis that gave a national report.

Results

The results showed that in the sampled CSOs HIV/AIDS affects productivity by about 8-20%. The findings further showed that organizations are not very keen in counting the costs of HIV/AIDS. The findings also revealed the lukewarm response that CSOs are taking towards devising strategies to combat HIV/AIDS in the work place.

Recommendations

Several recommendations were made following the findings. These recommendations go to CSOs, donor agencies and capacity building providers. Among other recommendations is need to properly enumerate the costs and come up with practical and organic strategies to contain HIV/AIDS in the work place.

D3. "Adam, where are you?"

J. Mbuna

Background Information

Recently there have been attempts to mainstream HIV/AIDS and gender in the workplace. That approach has been done on the basis that women are more vulnerable to HIV/AIDS. But what is the situation in CSOs? Does the picture hold that men (Adam) are not as much affected as women when it comes to HIV/AIDS work place policy?

Objectives

The research was done with the following major objective:

- to assess the impact of HIV/AIDS on gender in the work placed

Methodology

The research methodology involved developing tools which included a developing leadership Impact Questionnaire which all sampled CSOs were supposed to fill. In every CSOs that was sampled the questionnaire was administered to about 3-4 senior staff members. Interviews were conducted asking for any relevant documentation and interviews. (preferably on one particular day with the same organization.)

The data that came up was analyzed for each sampled CSOs. From these results, a synthesis was made and it is this synthesis that gave a national report.

Results

The results showed that HIV/AIDS affects men and women differently. Further organizations that are women led are not keen to push for HIV/AIDS workplace policy.

Recommendations

In order to effectively and equitably deal with HIV/AIDS in the workplace, organizations need to develop and implement policies that should cater for the needs of the two groups. Policies that organizations develop should have a human face and recognize the diverse impact that HIV/AIDS has on gender.

D4. Patient Triage In A Super High Burden Art Clinic Improves Art Delivery

C.A.Foncha, O. Pasulani, I.Y. Zulu, B. Mwagomba, M. Massaquoi, Zachariah R.

BACKGROUND: In April 2003, MSF began initiating patients on ART in Thyolo District hospital. As the sole site providing ART in the district, congestion at the ART clinic became unavoidable.

SETTING: Thyolo District Hospital

OBJECTIVES: To describe the impact of patient triage on the management of patient flow in a super high burden ART clinic.

METHODS: All patients visiting the ART clinic either for routine drug refill, management of opportunistic infections, ART initiation or follow up, are split into various categories as a function of the estimated contact time at a consultation. The patients are either placed into a fast track, medium track or slow track. It is worth mentioning that the average contact time per patient remains the same as it was before the triage system was introduced.

The infrastructure of the clinic was rearranged, no additional buildings were required. Without employing additional staff, the work of the existing staff was reorganised into semi specialised units to tally with the category of the patient.

RESULTS: With new system in place, we moved from an average daily consultations of 115 to 250 at our clinic within the normal working hours without compromising the quality of care. The number of ART initiations per month moved from averagely 130 to 250. In a nut shell, we moved from an activity of a high burden to one of a super high burden clinic without increasing staff, and without compromising quality of care. No burn outs have been reported by the staff.

CONCLUSSION: Up to 5000 patients are consulted at our clinic monthly with acceptable quality. We think therefore that clinic organisation and task definition or triage system, is key to achieving a proper patient flow for improved ART delivery, maintain quality and avoiding staff burnout in the context of shortage of human resources.

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D5. Deploying Htc Counselors – A Model To Maximise Hiv Testing Uptake In Sti Clinic At Kch, Lilongwe, Malawi?

Duncan Kwaitana, *Gift Kamanga, Samuel Mbera, Hilex Kamzati, Cecilia Massa, Julita Kenala, Hellen Milonde, Naomi Bonongwe, Edward Jere, Seveliano Phakati, David Chilongozi, Francis Martinson* ***fmartinson@unclilongwe.org.mw***

Issues

Regardless of the availability of a well articulated HIV policy in Malawi, HIV Testing and Counseling (HTC) testing in STI service delivery areas have not registered appreciable success in Malawi. Comparably the same service has shown remarkable uptake among antenatal mothers and TB patients. This has been attributed to shortfall of capacity to implement the HTC strategy and lack of perceived benefits by STI patients unlike in PMTCT programme where patients are appealed to get tested in order to have their babies receive interventions.

Description

The practicality of HIV testing and post test counseling done by STI providers and at the same time ensure the desired quality of HTC services is subject to debate especially with busy clinics. Kamuzu Central Hospital STI clinic has used a different approach that works. Patients are assembled in one waiting area (reception) where group sensitization talk on HTC and general STI is conducted. One by one, patients go to the exam rooms for their STI services after which a finger prick for HIV and syphilis test is done by the STI service provider. The patient will then proceed to the counselor's room for results and detailed individual post test counseling. In some cases the client will first get HTC services in a counselor's room and finish up with STI services in the exam room.

The clinic has communicating device of an alarm and flash lights directing which room is available for the next patient. There is an excellent electronic database where patients' information entered from the patient folders.

Results

Before the deployment of counselor there was negligible HIV testing done at the STI clinic. Since the deployment of HTC counselors to the STI clinic, the number of clients accessing HTC has increased from less than 10% to over 60%. The clinic is now testing over 320 clients per month.

Conclusion

Generally STI providers (nurses/clinicians) do not have enough time to adequately implement HTC in the clinics. In this experience it is clear that HTC counselors have greatly contributed to increase the uptake of HIV testing services.

Recommendation

MOH should consider deploying a new cadre (HTC counselors) in STI clinics to complement the work of STI providers.

D6. The Sexually Transmitted Infection (Sti) Clinic At Kamuzu Central Hospital, Lilongwe - A Model Of High Quality Sti Treatment Centre.

Gift Kamanga[1], *Clement Mapanje*[1], *Happiness Kanyamula*[1], *Ida Khombe*[2], *Beatrice Ndalama*[1], *Cecelia Massa*[1], *Charles Wemba*[1], *Debora Kamwendo*[1], *Kim Powers*[3], *Hajj Juma*[2], *Amon Nkhata*[2], *Hans Katengeza*[2], *David Chilongozi*[1], *Francis Martinson*[1], *Irving Hoffman*[3]

Affiliation: *UNC Project, Lilongwe*[1]*; Kamuzu Central Hospital, Ministry of Health, Lilongwe*[2]*, UNC-Chapel Hill, NC, USA*[3]

Background:
The STD clinic has been operating as a stand alone clinic in the KCH OPD since 1993. Recent improvements in the physical infrastructure, health education package, personnel, electronic database and the institutionalization of HIV counseling and testing has enhanced services.

Methods:
Beginning in April 2006, demographic, clinical and laboratory data relevant to the management of the patients STD has been entered into an access database on a daily basis. Prior to that time, monthly reports were compiled by hand from clinic log books.

Results:
In 2005 there were 8082 patient visits to the STI clinic. Following service improvements, for the year from April 2006 until March 2007, there were 11,777 patient visits. 59% women, median age 28, 50% with ≤ a primary education, 20% single, 83% had their symptoms >1 week, and only 19% used a condom the; last time they had sex. 19% of the men and 10% of the women had genital ulcer disease, 22% of the men had a urethral discharge, 31% of the women presented with a vaginal discharge and 40% had lower abdominal pain. For the 6 months from Nov 2006-April 2007, 1600/2499 (64%) of new patients were HIV tested and 468 (29.3%) tested HIV positive of which 7 had acute HIV and were negative by standard antibody testing.

Conclusion:
Improving STI services increased the demand by 46%. This is a high volume clinical setting of high risk behavior men and women with a high prevalence and incidence of HIV. It is an ideal setting for HIV prevention programs targeted at both HIV infected and uninfected groups. The first goal is to increase the uptake of HIV counseling and testing.

D.7 C I S P

CISP is an Italian non-governmental organization set up in 1982 and recognized by the Italian ministry of foreign affairs and the European Union. It is a longstanding stakeholder in international cooperation, operating in many countries worldwide, and carries out, in close collaboration with local partners, development rehabilitation humanitarian and research activities. CISP started its activities in Malawi in September 2002. In 2005, CISP implemented a NAC- grant project, in Zomba rural. Since August 2005, CISP has been implementing the project 'Local development and income generation to mitigate the impact of HIV/AIDS on poor households of Blantyre district funded by Banca Intesa. The project aims to reinforce the capacity of HIV affected communities to cope with the consequences of the diseases in terms of poverty reduction and countering the destruction of economic resources. The HIV/AIDS baseline survey for CISP was conducted from 5- 19 November 2004 with the express aim of generating information to analyze knowledge levels of communities in relation to HIV/AIDS an to provide baseline information for the development of an appropriate HIV/AIDS program targeting the communities in Blantyre rural. Quantitatively, structured questionnaires were used to capture general information about the respondent's knowledge on HIV/AIDS and related issues. Qualitatively, focus group discussions were conducted. Knowledge of HIV/AIDS among women and men was found to be universal in that nearly half of women and six in ten men could identify ways of HIV transmission, Voluntary counseling and testing. By ranking the impacts of HIV/AIDS in their households, the following were the problems mentioned in their rank order: Increased number of orphans, Poverty, VCT sites. Based on the findings, CISP started a project namely 'Income generation to mitigate the Impacts of HIV/AIDS on poor households of Blantyre district' in August 2005, targeting households directly affected by HIV/AIDS. CISP, with the support of local authorities and project partners, identifies targets needy groups of people taking care of orphans and PLWHA female heads of households and vulnerable youths, train them in the selected IGA and finally provide them with start up materials.

D8. Title: Monitoring Aids-Related Cbos In Rural Malawi--Track D

S. Watkins, University of Pennsylvania and California Center for Population Research, University of California-Los Angeles, J. Browning (MDICP), J. Phiri (MDICP)

Background: Community-based organizations are thought to be an effective way to deliver HIV prevention and AIDS-mitigation services to the poor. CBOs are thought to operate in a democratic manner, to be more transparent, and, because they are closer to the people in need, to represent the needs of the community. Yet monitoring them from a distance is difficult. In 2003, NAC issued a call for proposals for support for CBOs engaged in caring for orphans and the critically ill and/or in HIV prevention, and set up a M&E system to review the proposals and to provide accountability for the funds to be dispersed. Funded CBOs were to be monitored by one of five international NGOs (Umbrella Organizations): these UO's received regular reports from the CBOs and were to make regular site visits to verify these reports. In 2006, a consultant's report to NAC criticized the UOs for inadequate monitoring.

Objectives: This paper reports the outcome of our effort to track NAC's CBO initiative. We assumed that CBOs would have incentives to exaggerate their activities and that neither the UOs nor the consultants evaluating the UOs would have sufficient time to collect data from those who were not members of CBO committees. Our primary question was whether the CBO was active, and our secondary question concerned the activities of the CBOs. Our data did not permit us to evaluate the impact of the CBOs.

Methods: We used two methods of gathering data on CBOs. The first was to include questions about the CBOs in a survey of a sample of approximately 4000 randomly selected respondents that the Malawi Diffusion and Ideational Change project fielded in three districts (Mchiji, Rumphi and Balaka) in 2006. The questions simply asked about the existence in the respondent's community of groups conducting AIDS-related activities. Our assumption was that if the CBO was active, village members would know it. The second was more informal and occurred primarily in Mchinji: to have project field personnel (~40 interviewers and 5 supervisors) simply chat with people as they were walking around the site, or taking a break for lunch.

Results*:* Both methods of data collection showed that in almost all villages there was disagreement as to whether a CBO was active in their village. In Mchinji, members of the CBO committee or relatives of these members said the committee was active; others said either there had never been such a CBO or that there had been but it was no longer active. Since the villagers typically did not know who funded a CBO, we were unable to identify reliably the NAC-funded CBOs.

Conclusions: Despite the availability of two types of unusual data on CBOs, we were unable to conclude that NAC-funded CBOs, or indeed any CBOs, were actively engaged in HIV prevention and AIDS-mitigation. As a consequence, we conclude that many were not. We were not able to evaluate the impact of CBO activities on AIDS prevention or mitigation.

Recommendations: Monitoring funded CBOs requires new approaches that on sources other than the CBO's own reports as well as systematic approaches to evaluate the impact of the CBOs.

D.9 Is Quality HIV Counseling And Testing Achievable With An Ever Increasing Client's Patronage? Experience From Save The Children Umoyo Network Partner Ngos' Static HIV Testing Centers.

ENEUD S. GUMBO – Quality Assurance Specialist, JHPIEGO-Malawi/Umoyo Network
2. CARRIE OSBORNE – Chief of Party and Program Manager, Umoyo Network.

Objectives and scope

To improve the quality of HIV counseling and testing in all the USAID-funded counseling and testing (CT) sites supported through Save the Children Umoyo Network, despite an increase in the number of clients seeking services.

Methodology

HIV counseling and testing has rapidly gained momentum in most counseling and testing centers. This raises concern about the quality of counseling and testing due to pressure of work. Save the Children Umoyo Network, with its International partner JHPIEGO, embarked on improving the quality of counseling and testing among the 13 NGOs implementing HIV related activities throughout the country. There were 28 static HIV-testing sites observed. JHPIEGO and Umoyo Network introduced quality improvement using Standard Based Management after training counselors and supervisors. The activities included setting up of performance quality improvement (PQI) teams, developing monitoring tools, conducting baseline assessments for the quality of CT, observing services and monitoring. In all the sites observed, each counselor saw an average of 15 clients per day with a range of 10 to 20 per day, against the recommended of 8-10. Sit-in observations and peer observations, combined with quality improvement assessments, continued through-out the four year period. Subsequent assessments were compared with baseline and previous results.

Results/Lessons Learnt

The results showed that with continued monitoring, the quality of counseling improved with each assessment despite an increase in the number of clients patronizing the CT centers. The baseline assessments ranged from 27% to 41% performance. The quality improved to a range of 64% to 96% performance with some NGOs registering more improvements than others. It was also noted that the busier the clinic became, the better the quality of CT as in MACRO sites, Namasalima and Word Alive Ministries International.

Conclusion(s)

Quality HIV CT is achievable using the SBM approach with approved CT standards for monitoring quality.

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D.10 The Role Of Nutrition In Hiv/Aids Interventions –The Integrated Approach

D Phiri and C Chimombo

1. **BACKGROUND:** World Vision Malawi, has been implementing an integrated Food Security project called Malawi Smallholder Food Security Project in T/A Ntchema in Chiradzulu District from 2002. One of the components of the project was Nutrition and HIV/AIDS which was incorporated in 2004 with deliberated effort to improve household food and nutrition security, access to care and support for the vulnerable groups such as children under five years old, women and people living with HIV/AIDS.

2. **OBJECTIVES AND SCOPE:**The overall project goal is to improve the food security of the rural inhabitants of T/A Ntchema in Chiradzulu District. The two outcomes for the nutrition and HIV & AIDS component were:

- ❖ to improve the nutritional status of the vulnerable members of the community such as Orphans and Vulnerable Children, people Living With HIV & AIDS and chronically ill
- ❖ to increase and strengthen the community capacity to provide care and support to OVC, PLWHA and chronically ill.

3. **METHODOLOGY/STRATEGIES:** The project which was community based and was implemented village extension multipliers in collaboration with government stakeholders and local leaders. WV staff provided the technical support though development facilitators. The following strategies were used to achieve the objectives:

- ❖ Capacity building for staff (project and government) and village extension through training in HIV/AIDS (prevention, Care and Support) Nutrition, crop and livestock production and proposal development
- ❖ Facilitating sharing of ideas and experience through exchange visits for the village extension multipliers
- ❖ Facilitating field demonstrations on food processing, preservation, utilization and storage

RESULTS

- ❖ The under five children growth monitoring exercises done periodically indicated a gradual improvement in number of malnourished children from 30% in Jan 2006 to 4% in Jan 2007.

Table 1 showing nutrition status trends for the u5 children

Date monitored	**Total # of U/5s**	**# Malnourished**	**% malnourished**
Jan 06	1807	540	30%
Jan 07	1016	42	4%

- ❖ The Homebased care patients recovered at a rate of 14% and 15% 2005/2006 and 2006/2007 respectively.

Table 2 showing recovery rates for homebased care patients

Year	**2005**	**2006**	**2007**
Number registered	**148**	**96**	**82**
Number	**52**	**14**	**82**

recovered			

CONCLUSION

Food security and Nutrition play a major role in the recovery of process for homebased care patients. An integrated approach to HIV & AIDS interventions can be an appropriate and cost effective means of mitigating HIV/AIDS problem.

RECOMMENDATIONS

- Collaboration with stakeholders is very important since HIV & AIDS needs cooperate effort

- Project implementers should directly work with The PLWA groups which should have almost 80% of the members living with HIV & AIDS inorder to identify the actual needs of the participants.

- Local leaders should take active roles in HIV & AIDS projects. Youths should be actively involved in HIV and AIDS activities for them to be able to make informed decisions.

- HIV & AIDS projects should be evaluated at least after three years for better results. This is because behaviour change as regards HIV & AIDS issues is a gradual process.

TRACK E: PARTNERSHIP, NETWORKING AND COORDINATION

In this Track attention is on forms of partnerships, mechanisms for networking and coordination emerging at various levels to guide and facilitate responses and what lessons can be learnt to accomplish mechanisms that ensure inclusiveness and drive a truly coordinated multi-sector response

E1.

Mac Geofrey Thompsonie Mwale Macgeofrey Mwale [macgeo4@yahoo.com]
Society for Holistic Approach (SHA) Blantyre Malawi.

OBJECTIVE AND SCOPE: There are a lot of organizations on the grounds who are currently involved in the fight against HIV/ADS. However, the impact of these players has not been effective due to lack of networking in order to guide and facilitate responses from the general public. There are disastrous consequences to be experienced if networking, partnerships, newsletters, letters, email links, workshops and informal contacts are not made accordingly, the process of inclusiveness and mechanism to coordinate a viable multi-sector approach will become non- existent.

METHODOLOGY

A Questionnaire was circulated among the organizations who are involved in the fight against HIV/AIDS in Nkhata-Bay, Nkhota-kota, Lilongwe, Blantyre, Mwanza and Thyolo. The key indicators were: the Source of Funding, Newsletters, Letters, Email links, Partners and Informal Contacts. The questionnaire brought in an element of why they don't network and the consequences of their actions.

RESULTS:

- The awareness of one another is missing due to lack of interaction on the day to day basis.
- Many organizations are not aware of the benefits they can obtain for their projects through networking and partnership.
- Many projects are competing for limited resources particularly donor funding.
- The popular misconception is that in order to justify what they are doing, they must be the only ones doing it
- The source of finding does also contribute to create competitions, duplications between projects and the fear to know each other: we can cite religions Groups, Political inclined Groups and the professionals.

RECOMMENDATIONS;

The issue of HIV/AIDS needs a strong Networking, Partnership and Coordination order to succeed because the benefits of co-working so far outweigh these perceived set backs. Some of these duplications and fears can easily be dealt with.

E2. EMPOWERING COMMUNITIES IN THE FACE OF HIV AND AIDS THROUGH STAR

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Background: STAR is a comprehensive integrated and innovative participatory methodology evolved from experiences of implementing Stepping Stones and REFLECT both pioneered by ActionAid.

Objectives and Scope: STAR aims to develop an integrated approach to individual and community empowerment in the face of HIV and AIDS with particular emphasis on gender and rights. Women, girls, poor and excluded people including People Living With HIV and AIDS are mostly sidelined in decision making even on issues affecting their own lives. STAR enables them to reflect, plan and act on HIV and AIDS integrating with other related development issues.

Methodology Implemented through peer or adult learning circles of about 15 to 25 participants. Facilitators lead proceedings in STAR circles. These are context specific and should be literate. Facilitators undergo an initial STAR training focusing on, adult learning skills, facts about HIV&AIDS, literacy, learning materials development, and facilitation skills. Circle participants meet regularly to a maximum of four days a week for not more than two hours a day at their convenience. Participants with the help of the facilitators use Participatory Learning Action / Participatory Rural Appraisal tools to critically analyze and discuss pertinent issues affecting them, learn reading, writing, numeracy and draw action points. Participants share their learnings and action points, and engage with the wider community to get support, critic the issues and reach consensus in a group meeting. Circle facilitators meet once a month to share experiences, capture emerging issues and adapt the issues for improving the process. A committee manages a circle, which among others monitors circle attendance. In village setting, STAR circles link up with the village leadership through circle committees to solicit support for the implementation of action points. Action plans that are feasible and contribute to the development of sustainable livelihoods at different levels are presented for support.

Results
Communities are demanding services (VCT, ARTs) closer to them; improved literacy skills; a lot of people are going for VCT; PLWHA support groups have been formed; and there is reported stigma reduction on HIV and AIDS among others.

Recommendations :Document and share learnings, case studies and best practices with the national level stakeholders.

E.3 Systemwide Effects Of The Global Fund (SWEF) In Malawi

B. Mtonya, S. Chizimbi

Background: The report presents the follow-up findings to a 2005 baseline study to assess effects of GF support on health systems in Malawi.

Objectives and scope: The overarching objective of the research is to assess how the GF support has interacted with the Malawi health system focusing on four areas; the policy environment, human resources, the public/private mix, and pharmaceuticals and commodities.

Methodology: The Malawi study focuses on the qualitative interviews and literature review.

Results: The majority of constraints to implementing the GF supported programs relate to weaknesses in Malawi's health system. It is recommended that Malawi ensures that any future proposals to the GF clearly consider health systems constraints and opportunities, and identify HSS activities to ensure the effective delivery of services.

The follow up report revealed that the GF malaria grant is fully integrated both financially and programmatically into the SWAp. The same applies to the HSS component with its support to the human resource component of the health SWAp. This trend of integration of GF programs in the context of integrated service delivery and SWAp has positive implications in terms of sustainability of GF activities after GF funding ends.

A new development in terms of effects of the GF on the policy environment and in terms of encouraging new and innovative partnerships among stakeholders is the formation of the Malawi Partnership Forum on HIV/AIDS. Key lessons could be learned from the forum as an innovative mechanism for ensuring broad stakeholder engagement in planning, implementation and coordination.

Recommendations: The SWEF research reveals useful interactions between the Global Fund and recipient country health systems. Understanding such findings is critical for country policymakers and global stakeholders to better plan and implement large-scale disease-specific interventions.

E.4 The Lighthouse Ndife Amodzi Enrollment Program

The Lighthouse Group

Background:

The Lighthouse Ndife Amodzi program is designed to promote health through psycho-social care and support to HIV positive clients who are generally well enough to continue their daily activities.
During monthly home visits, Home Based Care (HBC) volunteers provide psycho-social support, promote positive living, assess the client's health and ARV adherence, discuss health issues and make appropriate referrals.

Objectives and Scope:

The target is to enroll 1,000 Lighthouse patients into the program by the end of 2007. Enrolment procedures have been revised to increase uptake.

Methodology:

All patients are encouraged by the nurses to enroll into the program. Two volunteer coordinators meet all interested patients in the clinic waiting area and advertise the programme and discuss details. Patients are shown a list of volunteers with photographs who operate in their residence area to make a personal selection. Detailed directions how to find the patients home are sent to the chosen volunteer who then visits the client at home.

Results:

The enhanced enrolment procedures were implemented in July 2006 and have proven successful. Between July 2006 and April 2007, a total of 350 patients have been enrolled into the programme, which is equivalent to an average recruitment of 35 patients per month. This is a considerable increase to the average of 15 patients per month, who were enrolled before the implementation of the enhanced procedures.
As of May 2007, 62% of all eligible patients who were resident in the programme catchment area have been enrolled.

Conclusion:

The Ndife Amodzi Enrollment program has enrolled 661 clients as of the end of May 2007 and it is expected that the goal of enrolling 1000 by the end of 2007 will be surpassed.

Recommendation:

We believe that the Ndife Amodzi Enrollment process can be a pillar supporting effective rollout of Home Based Care programs nationally.

E.5 Offering HIV Testing At Outreach Activities: The Experiences From A Partnership Between Action Against Hunger And Macro In Kasungu District.

N. Nutma[1], C. Nashire[2], P. Escudero[1], T. Nkhana[1]

Background: Action against Hunger is implementing a food security, health and nutrition program in 3 Traditional Authorities in Kasungu district. Since February 2007, collaboration has been established with Malawi Aids Counseling and Resource Organization (MACRO), whereby MACRO joins the Action Against Hunger team when going into the field for public health and nutrition talks, and additionally offers HIV testing and counseling to the communities.

Objectives and scope: Evaluation of the joint outreach activities.

Methodology: Review of data of the field visits, number of clients receiving health and nutrition (including HIV) information and number of clients accessing HIV testing and counseling at these occasions.

Results: Between February and April 2007, a total of 10 joint field visits were made. During these trips, Action Against Hunger provided transport and organized public health and nutrition talks, while MACRO provided HIV testing and counseling. A total of 728 people attended the health and nutrition sessions (64% were men, 36% were women), of which 345 accessed HIV testing and counseling (52% of men and 40% of women).
Coordination between the organizations proved to be crucial in order to effectively collaborate and make optimal use of limited resources, including human resources, time and transport.

Conclusions: Collaboration between organizations offering HIV testing and counseling and organizations doing outreach activities can increase availability of HIV testing and counseling.

Recommendations: Organizations that conduct outreach activities and organizations offering specific HIV programs like HIV testing and counseling should actively explore possibilities for partnerships, as it can improve availability of HIV services in the communities. Good coordination and communication between involved parties is essential to make optimal use of scare resources.

1 Action Against Hunger
2 MACRO

TRACK F: GRANTS MANAGEMENT

The Track seeks to learn lessons from grants management models and experiences especially as Malawi intensifies grants to expand and decentralize the response to lower levels. Lessons may be leant from the design of the facility, channels for movement of resources and monitoring performance.

F1. Sub-Granting To Nascent CBOs – SAT's Experiences

Dr. Tiwonge Loga

OBJECTIVES: Southern African AIDS Trust (SAT) exists to provide financial grants and technical support to emerging CBOs to manage sustainable responses to HIV and AIDS.

METHODOLOGY:
SAT has core funding from CIDA, SIDA and RNE and carefully selects emerging CBO to partner with. This involves profiling and institutional capacity and community competence assessments. SAT then facilitates participatory proposal development involving SAT, CBO and community. Grants are awarded annually, although the partnership is 3-7 years. 60% is for the first 6 months and 40% for the remainder. Financial reports are given on a monthly basis with supporting documents. Upon contracting a 5-day financial management workshop takes place. Renewal of contracts is based on full liquidation and acceptable programme delivery. Any breach of contract results in termination and return of assets. Financial monitoring visits are conducted once a year and on a need basis. Other tailor made assistance includes study and mentoring visits.

RESULTS: Partnership with CBOs which would otherwise not meet most donor criteria; Working with rural and underserved communities; A grant relevant to community needs; Reduced delays in disbursement due to participation of donor in proposal development; Community transparency related to scope of work; Tailor-made financial trainings; Ability to detect financial problems in infancy.

RECOMMENDATIONS: 1) More systematic selection of CBOs to fund is required 2) Community must be involved in determining scope of work to avoid fraud 3) Capacity building must be tailor-made to CBO needs 4) On-site financial monitoring visits are more useful than mere documentation which can be misleading. 4) Donors and CBOs must be partners with room for dialogue 5) When all else fails, the option for termination should be utilized to prevent further abuse of valuable and scarce resources.

F2. Channels for movement of resources.

Mary Ng'ambi, Carrie Osborne

Background:
With USAID funding, Save the Children Umoyo Network supports fifteen NGOs serving two million people of eighteen districts in Malawi. The NGOs provide HIV related services, such as prevention, counseling and testing, prevention of mother to child transmission and palliative care.

Objectives and scope:
To help NGOs develop good Financial monitoring systems that ensures achievement of objectives.

Methodology:
Umoyo Network facilitated baseline assessments to check how best to administer financial resources to the NGOs to ensure good financial monitoring systems and accountability of financial resources. Umoyo used the outcome of these assessments to come up with the Advance method of administering funds. That has helped the NGOs to stick to the activities planned and to liquidate their advances in good time ready for the subsequent month activities. To check activities planned and achieved. To develop short term plans for activities planned but not achieved.
Together the NGOs and Umoyo Network have regularly reconciled their statement of affairs in terms of funds requested and funds liquidated.

Results:
Through this method of administering funds to the NGOs there has been greater improvement in the way coordination is done between Finance staff developing the cash requests and program staff developing the work plan. This has also ensured that the activities in the proposal are adhered to and there by promoting the achievement of the objectives of the organization. There has been timely liquidation of the advances to ensure the activities for the subsequent month are carried out as per plan. There has been greater tracking of funds utilized from the side of the NGOs and the Donor.

Conclusions:
Advance systems are essential for achieving the objectives and efficiency of the organization.

Recommendations:
Agencies should help the NGOs to achieve their objectives by designing systems that motivate management in promoting coordination across the organization, instills discipline to stick to their targets..

F3. Using Financial Information In Monitoring Performance

Siggie Undi Mary Ng'ambi [mngambi@scusbtmw.org]

Background:
Save the Children, Umoyo Network with funding from USAID has provided funding to 15 local Malawian NGOs for Capacity Building of HIV /AIDS related Service.

Objectives and scope:
To build Capacity of NGO in use financial information in monitoring of project activities in order to achieve the results in the most dynamic economic environment.

Methodology:
Umoyo Network carried out pre-award assessment of NGOs to assess financial systems for NGOs with aim of obtaining baseline data to be use in the measure of capacity building of NGOs in financial management. The exercise also revealed the gaps that NGOs had in monitoring their financial performance and also how the financial information could b used to make decision on future plans on project implementation. This was achieved through training to both finance and non-finance managers so that all should understand and interpret the information and review their work plan and activities for next quarter based on the understanding of the financial information. Desk reviews were also conducted, the team comprising of finance and program staff with an aim to review activities accomplished against planned activities for the quarter as well as review of targets, review of expenditure against budget in order to match and st up milestones to complete late activities with the financial resources available due to under expenditure.

Results:
Through NGOs were able to re-planned late activities using the financial resources available due under expenditure which resulted in those activities not being done in time .The NGOs were able to planned additional activities using the money under spent due to lower costs incurred in implementing originally planned activities. NGOs were able to discuss budget reallocation as the project years were coming to end to move money to areas that required more financial resources. NGO spent money within the approved budget line parameters due to monitoring trend in expenditure /

Conclusions:
Budget more helps to implement more with the same resources as funds could be reallocated and activities being done based on real issues on the ground .

Recommendations:
Donor Agencies should equip organizations with skills to monitor expenditure against budget in order to smoothen program implementation with understanding of both program staff and finance staff.