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S1.1. THE CLINICAL ASSESSMENT OF MSM

Darren Russell

Clinical assessment and screening for STIs presents challenges in MSM populations, particularly in those 80 countries where homosexuality is illegal. In 5 countries, homosexual acts are still punishable by death. Even in those countries where homosexuality is legal and widely accepted, men may not reveal details of their sexuality to their health care providers for fear of judgemental attitudes or homophobic attitudes. This can negatively impact on the ability of these men to receive appropriate medical assessment and care.
Guidelines for screening MSM for STIs have been produced in several countries, including the United Kingdom, USA, and Australia and differ somewhat between jurisdictions. As with heterosexuals, the majority of bacterial STIs affecting MSM have minimal or no symptoms, but can lead to significant morbidity if not treated in a timely manner. Nucleic Acid Amplification Tests (NAATs) are generally the tests of choice for gonorrhoea and Chlamydia trachomatis, and are also used to test the lesions of genital herpes and primary and secondary syphilis. There are, however, some limitations associated with NAAT testing, especially regarding gonorrhoea PCR tests and cross-reactivity with other Neisseria species.
Patient self-collected NAATs at anorectal and pharyngeal sites may be performed, and this has high acceptability for both patient and practitioner.
Screening for Herpes simplex virus (HSV) infections in MSM is controversial, but most authorities would agree that screening of populations is not currently appropriate. HSV type-specific serology has its place in the diagnosis of first episode HSV, in atypical infections, and in seroprevalence surveys, however.
'New' infections such as anorectal (and, more recently described genital ulceration and inguinal syndrome) LGV in MSM, and Mycoplasma genitalium will also be discussed.

S1.2. HOMOPHOBIA AND SEXUAL RISK IN SOUTH AFRICAN MSM

Theo Sandfort *- HIV Center for Clinical and Behavioral Studies (New York State Psychiatric Institute and Columbia University, New York, USA), 2: Vasu Reddy - Policy Analysis and Capacity Enhancement Department, Human Sciences Research Council (Pretoria, South Africa), 3: Huso Yi - HIV Center for Clinical and Behavioral Studies (New York State Psychiatric Institute and Columbia University, New York, USA), 4: Senkhu Maimane - OUT LGBT Well-being (Pretoria, South Africa), 5: Curtis Dolezal - HIV Center for Clinical and Behavioral Studies (New York State Psychiatric Institute and Columbia University, New York, USA)*

Background
In countries where acceptance of same-sex sexuality is low, men who engage in sex with other men (MSM) are likely to experience discrimination as well as negative feelings about their sexual orientation. This external and internal homophobia might interfere with their attempts to practice safer sex. The aim of this study was to test whether homophobia in MSM affects sexual risk behavior, and if so, through which pathways. Homophobia could affect sexual risk behavior directly via the motivation to practice safer sex or indirectly via depression, anxiety, and substance use (motivation to practice safer sex includes: information, social norms, self-efficacy, and intentions to practice safer sex).
Methods
Data for this study were collected via computer-assisted self-interviewing in a group of 300 men who met the following eligibility criteria: (1) living in the greater Pretoria metropolitan area ("Tshwane"); (2) 18 to 40-years old; (3) having had oral, anal, or masturbatory sex with a least one man in the preceding year (regardless of involvement with women and including men who self-identify as gay); and (4) being conversant in English. To promote diversity in the sample three groups were recruited: White men, and resourced and under-resourced Black men (respectively living in Pretoria proper and the townships around Pretoria; these townships are characterized by low levels of education, high unemployment and poverty).
Results
As expected, homophobia was related to sexual risk practices: MSM who reported higher levels of homophobic stress reported more frequently engaging in sexual risk practices. Homophobia, both internal and external (in the form of discrimination experiences), was related to mental health problems (including problematic alcohol and recreational drug use). The relationship between homophobia and sexual risk behavior was mediated by motivation to practice safer sex, suggesting that sexual minority stress lowers the motivation to practice safer sex. Alcohol and drug problems are also independently related to sexual risk behavior; it is likely that such problems interfere with the use of condoms, despite one's motivation to practice safer sex.

Conclusions
Our study findings have several implications for HIV prevention directed at MSM: (1) First of all, attention for alcohol/drug problems should be integrated in further prevention efforts; (2) an exclusive focus on safer sex knowledge, skills, social norms, and intentions is likely to result in behavior change that is unsustainable, if sexual minority stress is not addressed. This involves processing past trauma due to homonegative experiences and supporting the development of skills to cope with future homonegative experiences; (3) long term health behavior improvements in the MSM population would benefit from addressing homonegativity in the global community.

S1.3. HIGH HIV PREVALENCE AMONG MEN WHO HAVE SEX WITH MEN IN SOWETO: PRELIMINARY RESULTS FROM THE SOWETO MEN'S STUDY.

Tim Lane *- University of California, San Francisco, Center for AIDS Prevention Studies, San Francisco, USA, 2: H. Fisher Raymond - San Francisco Department of Public Health, San Francisco, USA, 3: Sibongile Dladla - Anova Health Institute, Johannesburg, South Africa, 4: Joseph Rasethe - Anova Health Institute, Johannesburg, South Africa, 5: Helen Struthers - Anova Health Institute, Johannesburg, South Africa, 6: Willi McFarland - San Francisco Department of Public Health, San Francisco, USA, 7: James McIntyre - Anova Health Institute, Johannesburg, South Africa*

Background
The epidemiological literature has shown that men who have sex with men (MSM) in the developing world have an elevated risk of HIV infection compared to the general population. However, prevalence data for MSM populations in sub-Saharan Africa are rare. Here, we present preliminary results from an HIV prevalence study of MSM in Soweto, South Africa.
Methods
Participants were recruited using respondent-driven sampling (RDS). Men presenting a valid study coupon, over age 18, who live, work, or socialize in Soweto, and had sex with another man in the prior six months were eligible to participate. Interviewers administered a behavioral questionnaire to participants, after which they were offered HIV VCT.
Results
We recruited 378 MSM, including 15 seeds, in 30 weeks. All results are adjusted per RDS methodology. Ninety-nine percent were black South African residents of Soweto; 16.1% self-identified as gay, 34% as bisexual, and 43% as straight. Among their last 5 partners, 61% reported at least one female, and 36% percent reported recent unprotected anal intercourse (UAI) with men. HIV prevalence was 13.2% overall, with 33.9% among gay-identified men. Increased risk of HIV infection was associated with being older than age 25 (Adjusted Odds Ratio [AOR] 3.8, 95% Confidence Interval [CI] 3.2, 4.6); self identifying as gay (AOR 2.3, 95% CI 1.8-3.0), reporting 3-5 male partners in the prior six months (AOR 1.9, 95% CI 1.4, 2.6), reporting unprotected receptive sex with men (AOR 4.4, 95% CI 3.5-5.7), and purchasing alcohol for male partners (AOR 3.9, 95% CI 3.2, 4.7). Decreased risk of HIV infection was associated with having a regular female partner (AOR 0.2, 95% CI 0.2, 0.3), and being circumcised (AOR 0.2, 95% CI 0.1, 0.3). Sixty percent of MSM had never tested; 30% percent of those who had not tested in the last year were HIV-positive, and 29% of new HIV diagnoses declined to receive VCT results.
Conclusions
HIV prevalence among Soweto MSM is high. UAI with men is common, and many MSM are unaware of their status. HIV prevention and treatment programs must be expanded to include appropriate HIV medical and social support services for MSM.

S2.1. TYPING OF NEISSERIA GONORRHOEAE

Etienne Müller *- STI Reference Centre, NICD, NHLS*

Gonorrhoea, caused by Neisseria gonorrhoeae, is still one of the major sexually transmitted infections worldwide. Characterisation of these organisms can provide valuable information on circulating gonococcal strains in a community and the emergence of particular clones. It can also provide an adjunct to contact tracing for reconstructing sexual networks. Gonococcal typing methods must meet several criteria in order to be broadly useful. Firstly all organisms within the species must be typeable by the method used and produce reproducible results. It must also be able to clearly differentiate unrelated strains, such as those that are

geographically distinct from the source organism, and at the same time demonstrate the relationship of all organisms isolated from individuals infected through the same source. Several phenotypic and genotypic typing methods have been described for N. gonorrhoeae. Most of the phenotypic typing methods, such as auxotyping, serovar classification and antimicrobial susceptibility testing have been replaced by molecular based typing methods, which offer better reproducibility and discrimination. Of these, pulse-field gel electrophoresis-based methods, porB gene sequencing, multilocus sequence typing (MLST) and the opa gene typing method are generally used. However, these methods are now also being replaced by DNA sequencing methods. One of the most extensively used molecular typing techniques currently available is the Neisseria gonorrhoeae Multi Antigen Sequence Typing (NG-MAST) technique and is the latest improvement in DNA-based gonococcal typing. The NG-MAST technique is based on the sequencing of the internal fragments of two highly polymorphic antigen-encoding loci, por and tbpB, thereby generating a simple numerical sequence type (ST) from the combined sequence data of the two genes by means of an internationally accessible Internet based data analysis system. This method is now frequently being used for national and international comparison of data, global gonococcal surveillance, molecular epidemiology studies and interpreting transmission patterns of N. gonorrhoeae.

S2.2. TYPING OF TREPONEMA PALLIDUM

Allan Pillay *- Division of STD Prevention, Centers for Disease Control and Prevention, Atlanta, USA.*

Syphilis remains a major public health problem in many developing countries, particularly in sub-Saharan Africa. The causative bacterium, T. pallidum cannot be cultured on routine laboratory media and therefore, strain typing has to depend on PCR amplification of DNA from clinical specimens. An added complication is that the number of T. pallidum organisms available for study varies depending on clinical stage of the disease. Despite these challenges, a molecular typing system has been developed in our laboratory at CDC and, this method has subsequently been used in a number of studies. The original typing system is based on PCR amplification of the treponemal repeat protein (tpr) and acidic repeat protein (arp) genes. A segment of the tpr genes (tprE, G, and J) are simultaneously amplified by PCR followed by restriction with the endonuclease MseI. PCR primers for the arp gene amplify a 60-bp tandem repeat region within this gene. The restriction fragment length polymorphism (RFLP) patterns and arp amplicons are either analyzed on a 2% agarose gel or on an automated instrument such as an Agilent 2100 Bioanalyzer. Application of the typing system in several studies have identified 14d as the predominant strain, with “14” representing the number of tandem repeats within the arp gene and “d” representing the RFLP pattern within the tpr genes. To further delineate strains, a subtyping method has subsequently been introduced, which entails PCR amplification and sequencing of a homonucleotide tandem repeat within the rpsA gene. The number of homonucleotide tandem repeats identified ranges from 8 to 15 G residues and represents the second numerical value in the strain designation (e.g., 14d10). The subtyping system has been applied to specimens obtained from a syphilis outbreak in Vancouver, Canada where 14d9 was initially identified as the outbreak strain. In addition, this method has been used to characterize strains from the United States carrying the A2058G mutation that confers resistance to azithromycin. It appears that azithromycin resistance is not clonally spread in the US. The typing system is a promising tool for use in further molecular epidemiological studies on syphilis.

S2.3. Typing of Chlamydia trachomatis

Sarah Alexander *- Sexually Transmitted Bacteria Reference Laboratory, Health Protection Agency, London.*

Chlamydia trachomatis is considered to be genetically highly conserved and consequently developing typing methods for this agent has proved to be challenging. Typing has been historically performed by first culturing the organism, followed by full serotyping employing monoclonal antibodies, which target the major outer membrane protein (MOMP). Clearly serotyping has limitations, the method requires both a viable isolate and the use of precious monoclonal antibodies. Therefore with the evolution of molecular techniques, serotyping has been superseded by ompI Restriction fragment Length Polymorphism (PCR-RFLP) and/or ompI DNA sequencing, where both methods, can be performed directly from clinical samples. Ultimately however whilst ompI based typing systems have proved invaluable for isolate characterisation, they can not provide the high level of discrimination that is require for the investigation of medico-legal cases, sexual network studies or to differentiate re-infection from persistence.

Over time other typing systems for C. trachomatis have also been described including: Pulse Field Gel Electrophoresis (PFGE), Random Amplified Polymorphic DNA (RAPD), and Amplified Fragment Length Polymorphism PCR (AFLP). However the lack of transferability, discrimination and the technical complexity of these techniques has meant that these typing methods have never been widely used.
Recently two typing systems: Multi-Locus Sequence Typing (MLST) and Variable Number Tandem Repeats (VNTRs) have been described that are able to provide more discrimination within C. trachomatis serovars than had previously been possible. It is hoped that such methods may have the potential to play an important role in advancing our understanding of transmission patterns of chlamydia infections.

S3.1. MICROBICIDES – A DISAPPOINTING FIELD ON THE TURN?

Helen Rees

The need to develop a female controlled method of HIV prevention remains urgent and unanswered more than ten years after the release of the first Phase III trial results for Nonoxynol-9. About half of the 33 million people living with HIV are women. The large majority of these women are infected through heterosexual intercourse, mostly through unprotected sex with their husbands or long-term primary partners. Young women aged 15 to 24 years old, are particularly vulnerable, yet frequently these women are unable to negotiate condom use. A second risk group requiring HIV protection are men who have sex with men (MSM), in whom HIV rates remain high and for whom additional prevention technologies are urgently needed. For both these populations, the development of an effective microbicide would be a major step forward.
This talk will reflect on where the field has got to in the development of microbicides. It will consider the product pipeline and the approaches now being taken in the development of new microbicide candidates including those containing ARVs. The talk will review current trials and outline the findings from completed clinical trials in women and in MSM participants. Highlights from the related social science studies will also be reviewed. Finally the talk will consider some of the challenges in the field including how to design shorter, smaller trials that will indicate potential efficacy, and the role of biomarkers as surrogates for safety and effectiveness.

S3.2. ELIMINATION OF CONGENITAL SYPHILIS: TIME TO SUPPORT THIS ACHIEVABLE GOAL

Mary L. Kamb *- MD, MPH Chief, International Activities Unit, Division of STD Prevention National Center for HIV, Viral Hepatitis, STD and TB Prevention US Centers for Disease Control and Prevention (CDC)*

Congenital syphilis has dropped off the STI, reproductive health and maternal and child health (MCH) agendas in many countries. Nonetheless, WHO estimates that this year between 715,000 and 1,575,000 pregnant women were infected with syphilis, and up to 80% suffered a serious adverse pregnancy outcome. Syphilis remains the most common infection associated with stillbirth, occurring in up to 40% of pregnancies among inadequately treated women. Syphilis can also cause preterm delivery, affecting 20-33% of infants born to untreated mothers and a substantial contributor to early neonatal death in settings with limited infrastructure for antenatal care. The global perinatal mortality associated with syphilis is estimated at about 327,000 cases per year, exceeding the perinatal deaths estimated for HIV, malaria or tetanus.
In October 2007 WHO launched a new global initiative for the “Elimination of Congenital Syphilis” with signatories from more than 60 nations, international health agencies and academic institutions around the world. The initiative seeks to bring this neglected, but continuing health issue back on the public health agenda, promoting elimination as a means of supporting basic reproductive health services. Over the past decade, advances in syphilis testing, program monitoring and logistics along with the renewed world focus on women and children’s health provide a basis for progress. In addition, attention to integrating MNCH systems can support congenital syphilis elimination while improving overall maternal and infant health outcomes. But advocacy and awareness are needed to ensure syphilis screening and prompt treatment of positives is available for all pregnant women.

S3.3. GLOBAL STRATEGY FOR THE PREVENTION AND CONTROL OF SEXUALLY TRANSMITTED INFECTIONS 2006-2015

Francis J. Ndowa *- Coordinator, STI Team, Department of Reproductive Health and Research, World Health Organization, Geneva.*

The global strategy for the prevention and control of sexually transmitted infections, 2006–2015 was developed after a series of regional and global consultations and endorsed by the World Health Assembly (WHA59.19) in May 2006. The document provides the rationale for countries to adopt the control of sexually transmitted infections as one of the cost-effective public health interventions. An array of old and new approaches to achieve key strategic goals are laid out in the document and emphasis is given on the importance of STI control as one of the key interventions for the prevention of HIV infection.
The two most important principles of STI control, namely, prevention of infection and the prompt detection and treatment of established infection are emphasised. The strategy presents arguments for a coherent and effective programme requiring a sound policy environment and an efficient system of commodity procurement and distribution. Five specific activities that are feasible and, based on available evidence, provide the most promising prospects of significant STI and HIV reduction at the national level are outlined in the document. The presentation will discuss some of the key features of the global strategy for the prevention and control of STIs, including targeted interventions and approaches for genital ulcer disease control and elimination.

S4.1. HIV TREATMENT: STATE OF THE ART

David Hawkins*, London*

Recent studies suggest that antiretroviral therapy leading to durable control of HIV can lead to relatively normal life spans. This of course requires drugs with improved tolerability and few long term adverse reactions. Fortunately such agents are becoming available. Newer antiretrovirals such as integrase and entry inhibitors, when adequately supported with active drugs, can lead, even in patients with 2 to 3 class resistance, to similar high levels of undetectability at 48 weeks and beyond when compared to treatment in naive populations. Treatment strategies with boosted PIs alone or with other nucleoside/nucleotide sparing regimens are being further explored.
Unfortunately drugs which cause significant toxicity such as thymidine analogues are still widely used in generic co formulations in southern Africa and elsewhere. Moreover, use of stavudine, where clade C virus is prevalent, leads to resistance development pathways which particularly limit subsequent therapeutic options. Current North American and European guidelines recommend starting therapy when the CD4 counts drops below 350 per mm³ and this is supported by the recent analyses published this year of observational cohorts. Furthermore, there is now confirmation, in a randomized control trial in a resource poor setting (CIPRA HT001), that patients did significantly better when commencing at this higher level rather than deferring treatment to be initiated when the CD4 count drops below 200. This is likely to lead to a change in the WHO guidelines and will influence discussion of access and redefine late presentation. Particular thought needs to be given to recommended initial treatments for women of child bearing age as nevirapine is contraindicated for those with CD4 counts above 250 and efavirenz, without adequate contraception, is eschewed in most guidelines.
Other current areas of investigation include the degree of clinical and laboratory monitoring required for successful therapy which is being addressed in studies such as the DART trial.

S4.2. Antiretroviral Therapy and HIV Prevention.

Thomas C. Quinn *- Associate Director for International Research, NIAID, NIH; Director, Johns Hopkins Center for Global Health, Baltimore, MD, USA*

Use of antiretroviral therapy (ART) has revolutionized the prevention of mother-to-child transmission (PMTCT) of HIV. Numerous studies have demonstrated that reductions in viral load with ART during pregnancy and breast-feeding reduce MTCT. These concepts have been applied to prevention of sexual transmission of HIV. In population-based studies, availability of ART was associated with an 80% decrease in sexual transmission of HIV. A meta-analysis of 11 cohorts including 5,021 heterosexual couples no transmissions among persons receiving ART with a viral load of <400 copies/ml were observed. A study of 2,993 discordant couples in Rwanda and Zambia demonstrated that among couples where the HIV-infected partner was untreated, the

HIV incidence in the uninfected partner was 3.4 per 100 couple-years, compared to 0.70 among those receiving ART (80% reduction). Among men who have sex with men (MSM), there was a 60% decrease in HIV transmission events after introduction of ART despite increases in reported numbers of risky sexual behavior. Most treatment guidelines recommend that HIV-discordant couples should be started on ART independent of their CD4 cell count in order to prevent transmission, but further encourage other prevention methods (condoms). These studies have been employed in a modeling exercise that simulated the effects of a hypothetical "test and treat" model in which universal voluntary HIV testing with immediate ART for infected persons would be incorporated with other prevention interventions. If this model was feasible, it could potentially reduce HIV incidence and mortality to < one case per 1,000 people per year by 2016. However, achieving full access to these interventions for all at-risk populations may prove to be more difficult than any mathematical model could predict. In summary, effective use of ART does substantially reduce sexual and perinatal transmission. Additional studies are exploring pre-exposure prophylaxis and post-exposure prophylaxis with ART to further reduce transmission.

S4.3. ARV ROLL OUT IN SOUTH AFRICA – WHAT HAVE WE LEARNT?

WD Francois Venter *- Cluster Head, HIV Management Cluster, Reproductive Health and HIV Research Unit, University of the Witwatersrand, Johannesburg, South Africa*

South Africa has the world's largest HIV epidemic by numbers, almost 20% of the world's disease burden, as well as the largest antiretroviral treatment programme. However, coverage remains inadequate (<50%), despite relatively high numbers of health care staff and health infrastructure relative to other countries in the region, which have achieved much better antiretroviral coverage. This talk looks at the historical, infrastructure and policy issues that continue to limit access to adequate therapy.

S5.1. MALE AND FEMALE CONDOM EFFECTIVENESS AGAINST STIS AND HIV: A REVIEW OF THE DATA.

Mags Beksinska *- Jenni Smit RHRU*

Male and female condoms are considered to be essential tools in the prevention of sexually transmitted infections (STIs) and HIV. When used consistently and correctly male latex condoms are highly effective in preventing transmission of HIV and are also known to reduce the risk of transmission of other STIs. However evidence varies on the level of protection male condoms provide against different STIs. Genital ulcer and HPV infection may occur in genital areas not covered by a male condom and so the degree of protection will depend on the site of infection. There is good evidence on the effectiveness of male condoms in reducing transmission of HIV and STIs in men who have sex with men.
The female condom (FC) is still the only existing, female–controlled method for STI/HIV prevention. Laboratory studies indicate that the FC is an effective mechanical barrier to viruses, including HIV, and to semen. A limited number of randomized, controlled trials have been done on the effectiveness of female condoms for STI protection, and all have been conducted with the polyurethane female condom. Some studies suggest FCs are at least as effective as male condoms against gonorrhea, chlamydia, trichomoniasis and early syphilis. There is no evidence on the efficacy of the FC in the prevention of HIV and STIs through anal sex although it has been reported that they are commonly used for STI/HIV protection during receptive anal intercourse. New female condoms are now becoming available made of synthetic latex and latex. This calls for more research into the effectiveness of a new generation of female condom designs.
This presentation will review the data available on both male and female condom effectiveness against HIV and specific STIs.

S5.2. CONDOMS BEYOND PREVENTION: CREATING DEMAND & INCREASING USE

Joy Lynn Alegarbes *- Director of Global Operations, The Condom Project*

An overwhelming body of evidence establishes that condoms are highly effective in preventing the transmission of HIV; yet people continue to be resistant to their correct and consistent use, often citing loss of sensation and lack of appropriate size as obstacles. In recent years, condoms have evolved from simple tools of prevention to devices for protection as well as pleasure and enhanced sensation. Health care providers and trainers must address this when providing clear and accurate information about condoms to the

community, focusing on the variety of options that can make safer sex more appealing. The information provided in this presentation will facilitate attitudinal change about condoms for trainers and in the community. This interactive presentation will explore a variety of condoms and lubricants available around the globe. Participants will have the opportunity to handle safer sex supplies in an assortment of sizes, shapes, colors, textures, flavors and sensations. Participants will learn new information and innovative communication techniques to destigmatize condoms with a focus on variety, strength and the pairing of condoms and lubricants. This presentation will seek to influence and expand the discussion about condoms by emphasizing enhanced pleasure and sexuality as a strategy to increase their acceptance and use.

S5.3. INTEGRATING CONDOMS INTO MALE CIRCUMCISION SERVICE DELIVERY PROGRAMS.

Jessica Greene *- Population Service International, Swaziland*

Male circumcision alone is inadequate as an HIV prevention intervention and as such there have been multiple calls for male circumcision to be part of a comprehensive package of services that includes HIV counseling and testing and condom distribution. In this presentation, PSI will share lessons learned from programmatic approaches to integrate condoms into its male circumcision service delivery programs.

S7.1. INTRODUCTION OF RAPID SYPHILIS TEST AND ITS EFFECT ON UPTAKE OF SYPHILIS SCREENING AND TREATMENT AMONG PREGNANT WOMEN ATTENDING FOR ANTENATAL CARE IN GEITA DISTRICT, TANZANIA

Mosha J *- National Institute for Medical Research, Mwanza, Tanzania, 2: Masesa C - National Institute for Medical Research, Mwanza, Tanzania, 3: Kishamawe C - National Institute for Medical Research, Mwanza, Tanzania, 4: Mngara J - National Institute for Medical Research, Mwanza, Tanzania, 5: Changalucha J - National Institute for Medical Research, Mwanza, Tanzania, 6: Mabey D - London School of Hygiene and Tropical medicine, London, UK and 7: Peeling R - London School of Hygiene and Tropical medicine, London, UK & World Health Organization.*

Background: Large scale implementation of syphilis testing in pregnant women in Tanzania, as in many other developing countries is limited due to limited cold storage facilities for reagents and equipment for performing Rapid Plasma Reagin test, and few trained staff to perform the test. Simple rapid syphilis tests which do not require equipment or cold storage, and could be performed in facilities without an established laboratory are available and have been shown to have good performance characteristics. We are implementing a project in Geita district, northwestern Tanzania where rapid diagnostic tests for syphilis are being used for screening pregnant women attending for antenatal care.
Objective: To determine the feasibility of increasing access to antenatal syphilis screening using a Same-Day Testing And Treatment (STAT) strategy, and to determine the cost-effectiveness of introducing quality-assured rapid syphilis testing into existing services for PMTCT and other antenatal care facilities in Geita district, northwestern Tanzania
Methods: Health care providers in all health facilities providing reproductive and child health services in Geita district, Tanzania were trained on how to perform SD Bioline rapid syphilis test and on stock management. Rapid tests were then introduced in all facilities. Data were collected on the number of women attending for antenatal care, gestational age, number tested and treated on the same day, and reasons for not being tested and treated. The data were collected before and after the rapid test introduction and analyzed by comparing the two time points.
Results: Data are still being collected and the results for assessing access to syphilis testing and treatment will be available for presentation at the conference.

S7.2. INCREASING THE ACCESS AND SUSTAINABILITY OF SYPHILIS SCREENING IN INDIGENOUS POPULATIONS OF THE BRAZILIAN AMAZON

Adele Schwartz Benzaken *- Fundação Alfredo da Matta, Manaus, Amazonas, Brazil*

Introduction
The health attention to the indigenous population in Brazil is delimited and administrated by FUNASA (National Health Foundation). Due to the epidemiological importance of the sexually transmitted infections

(STI) and the increased numbers of congenital syphilis in this population, the current challenge is to promote sustainable indigenous health actions in areas where infrastructure and laboratory equipment for the diagnosis of syphilis are not available. The availability of rapid tests for syphilis represents an opportunity to improve diagnosis and treatment in these remote locations.
Objectives: Increase access and sustainability for the diagnosis of syphilis in remote zones of the Amazon region in Brazil and achieve the incorporation of rapid testing as a national health policy to improve the testing coverage of syphilis in the indigenous population and to prevent stillbirth and congenital syphilis in indigenous pregnant women.
Methods
Prospective enrolment of reproductive aged population within 10 to 49 years old in rural zones of the Legal Indigenous Amazons in 9 Sanitary Districts of FUNASA using syphilis rapid test for 12 months. The sample size expected is around 60,000 people.
Results
To date, the project was implemented in 4 of 9 sanitary districts, with appropriate training for use of rapid tests by health professionals. Within these districts testing and treatment are being provided.
Conclusions: There is no baseline for the indigenous population in this study, as the majority had never been tested for syphilis. It is expected that, upon the conclusion of the project, this new technology will be incorporated by the Health Ministry.

S7.3. Screening of prenatal and high risk populations using rapid syphilis tests in China

Rosanna Peeling *- London School of Hygiene and Tropical Medicine*

Introduction
Syphilis has re-emerged in China as a major public health problem in recent years. As the disease is asymptomatic in most individuals, screening is a critical component of an effective control program. However, access to screening is poor in rural areas and for high risk populations in urban areas. Rapid syphilis tests that are simple to perform and can be used outside of laboratory settings offer a means of increasing access to screening.
Objectives
To determine the feasibility and cost-effectiveness of using rapid syphilis tests for screening of prenatal and high risk populations
Methods
The project is carried out in two provinces, Guangdong and Guangxi, with the high burden of syphilis in China. A mapping of prenatal screening services and high risk populations was carried out. A decision was made by the Ministry of Health in the two provinces to use the rapid syphilis tests in a Same-day Testing and Treatment (STAT) strategy. Screening using rapid tests was introduced into antenatal clinics at township level and some district level facilities. Outreach teams providing care for commercial sex workers (CSW) and men who have sex with men (MSM) were trained to provide STAT services for syphilis. HIV testing was also offered to these populations. Costing data was collected and a model will be developed to determine cost-effectiveness of different strategies of test introduction.
Results
The mapping revealed areas where syphilis services were needed. Syphilis testing was well accepted by prenatal populations in pilot studies. Outreach workers had to gain the confidence of high risk populations before they accept to be screened. The project is ongoing in the two provinces and is expected to reach …..pregnant women and …. CSWs and MSM.
Conclusions
Results thus far showed that screening using rapid syphilis tests is feasible for prenatal populations in rural areas and for high risk populations in urban areas. Increasing access to syphilis screening may offer a means of controlling the syphilis epidemic in China.

S8.1. WHAT'S NEW IN BACTERIAL VAGINOSIS?

Janet Wilson *- Consultant in Genitourinary Medicine, The General Infirmary at Leeds, UK.*

Bacterial vaginosis is the most common cause of vaginal discharge in women. High rates have been described worldwide, with prevalence of >50% found in some Sub-Saharan countries. Considering what a common condition it is, research to improve our understanding of it has been painfully slow. However, a number of exciting developments have happened in the recent past. This short presentation will cover:

Aetiology
New organisms have been found that are more specific for BV than those classically described. Still yet to be fully classified, it is hoped these may give insight into the aetiology and transmissibility of BV.
Sexual transmission
Studies in lesbians, and circumcision studies, have re-ignited the discussion about the role of sexual transmission in BV. The evidence to date will be considered.
Vaginosis or vaginitis?
The increased risk of HIV (and other STI) acquisition with BV is firmly established, with the risks being comparable to those of non-ulcerating bacterial STIs. Although BV clinically looks like a non-inflammatory condition, studies of inflammatory markers show this is not the case.
Affect on pregnancy
Many studies have confirmed the association with miscarriage and preterm birth and a meta-analysis has summarising the risks. Previously, treatment studies were conflicting and confusing but more recent ones suggest treatment early in pregnancy may reduce the preterm birth rate even in low-risk pregnancies.
Treatment
A number of different strategies have been tried to improve the cure rates and decrease the recurrence rates. These will be discussed.

S8.2. WHAT'S NEW IN TRICHOMINIASIS

Yaw Adu-Sarkodie *- School of Medical Sciences, Kumasi, Ghana*

Trichomonas vaginalis (Tv) infection is the most common curable sexually transmitted infection. There is increasing evidence that infection with TV is associated with increased risk of HIV infectivity and transmission. Co-infection of TV with HIV has been reported to increase HIV vaginal shedding and the treatment of TV in men co-infected with HIV has reduced HIV seminal load. Tv has also been associated with adverse pregnancy outcomes including premature rapture of membranes, pre-term labour and delivery, and low birth weight. Data on whether treatment of TV in pregnancy reduces these adverse outcomes has been conflicting. In many resource limited settings, wet mount microscopy of vaginal secretions is the diagnostic method of choice. With only a 50-70% sensitivity, there is underestimation of infection prevalence. Currently, available point of care (POC) tests report sensitivities of over 80%. The use of these should enable a better estimation of infection rates, and also improve client diagnosis and treatment. Further evaluation of these POC tests in resource limited settings is needed. Also needed is more research on impact of TV treatment in pregnancy. This would help tie-in issues of trichomoniasis with reproductive health outcomes which hopefully would give TV more attention.

S8.3. WHAT'S NEW IN PELVIC INFLAMMATORY DISEASE

Jonathan Ross

This update on PID will briefly cover three areas:
1. what is the risk of developing pelvic infection after catching chlamydia?
There are understandably few natural history studies reporting the risk of developing PID in women who have lower genital tract chlamydia but do not receive treatment. The existing studies are small and report a PID risk from <1% to 30%. The recently reported POPI study provides some new data and suggests that in undiagnosed and untreated women with chlamydia the risk of developing PID is just over 9% within 1 year.
2. does short term cure of PID equate to fewer long term complications?
The majority of PID treatment trials only assess the response to therapy after a few weeks, but most patients are more concerned about their long term future fertility. A further analysis from the PEACH study has found that resolution of pelvic tenderness at 30 days was significantly associated with the future risk of chronic pelvic pain, but not with the chance of getting pregnant.
3. are there any new treatment options for women with PID?
The use of azithromycin (given as two doses separated by a week) was found to be at least as effective at doxycycline (given daily for 14 days) in a randomised placebo controlled trial from Brazil. Three large randomised placebo controlled trials have now reported equivalent efficacy of moxifloxacin to alternative PID therapies. Moxifloxacin benefits from once a day dosing and is effective as monotherapy.

S8.4. MYCOPLASMA GENITALIUM: WHAT'S NEW?

Catriona Bradshaw *- Sexual Health Physician, Melbourne Sexual Health Centre, The Alfred Hospital and National Medical and Research Council Research Fellow, Department of Epidemiology and Preventive Medicine, Monash University, Victoria, Australia.*

Mycoplasma genitalium, as an established cause of urethritis in males and cervicitis in women, is no longer a controversial pathogen. Mounting evidence indicates that it has a role in upper genital tract infection in women, including endometritis, salpingitis and tubal factor infertility, however further research in this field is needed. Until recently studies have predominantly been conducted within clinical services and scant population data has been available. We now have a number of population studies from different countries indicating M.genitalium is half to a third as common as Chlamydia infection in men and women. While we understand the contribution of M.genitalium to STD syndromes at a research level, the absence of a commercially available assay means most services worldwide do not have the capacity to test symptomatic individuals for M.genitalium. Of considerable concern is the emerging evidence that current recommended therapy for NGU and M.genitalium, 1g of azithromycin, may not be sufficiently effective against M.genitalium. The empirical treatment of NGU with single dose azithromycin may be contributing to reported high levels of treatment failure, and azithromycin resistance detected in clinical specimens.
An improved understanding of the prevalence of azithromycin resistance in M.genitalium in populations using stat azithromycin compared to doxycyline is needed to inform future treatment trials. More efficacy data are also needed in women, particularly with M.genitalium-associated upper genital tract infection. One of the barriers to advancing research in this field has been the persistent lack of commercially available inexpensive assays. Lastly, clearly a greater understanding of the contribution of Mycoplasma genitalium to STI syndromes and population prevalence data is needed from resource limited settings.

S8.5. QUALITY AND QUANTITY IN STI SERVICES.

Christopher Fairley *- Melbourne Sexual Health Centre, Alfred Hospital and School of Population Health, University of Melbourne.*

Considerable research is available on the importance of access to health care as a determinant of the prevalence of sexually transmitted infections (STI) within a community. Much less research has focused on the issue of quality of health care although considerable resources are now being devoted to this area is hospital medicine. The airline industry has focused on preventing errors for 40 years now and has reduced the probability that an airline will experience a fatal event from 50 to less than one in one million departures. In contrast the chance of an individual knowing a family member whose had had a serious preventable adverse event is about 1 in 4.
The presentation will discuss the frame work for increasing the quality of clinical services with a particular focus on the prevention on medical errors. It will provide a practical guide to the introduction of a quality frame work with practical examples of quality systems for a sexual health service including a focus on system rather than individuals. Errors in medicine occur because of faulty systems and not faulty individuals. For example if a patient receives an antibiotic is it because the doctor did not check for the allergy or was it because faulty systems allow it to occur? Practical examples of the prevention of errors in sexual health services will be provided.

S9.1. ANTIMICROBIAL RESISTANT GONORRHOEA.

Catherine Ison *- Health Protection Agency Centre for Infections, London*

Neisseria gonorrhoeae is a highly versatile organism and has been particularly adept at acquiring and developing resistance to antimicrobial agents. Hence the choice of effective antimicrobial therapy for gonorrhoea has been a constant challenge since gonorrhoea was first treated with sulphonamides. The approach to the treatment of gonorrhoea has always been, where possible, to use a single dose therapy to give the greatest compliance and with this in mind penicillin was used for many decades, although with increasing dosage over time. However, the emergence of plasmid-mediated resistance and continual usage leading to selection of strains with increasing resistance due to chromosomal mutations led to the use of alternative agents. In the 1990s ciprofloxacin, a fluoroquinolone, appeared the almost perfect agent as it was

highly effective, given orally in a single dose and therapeutic failure was unknown. However, yet again the use of a single agent and previous misuse of earlier quinolones led to the emergence of resistance.
Rapid detection of the emergence of resistance to the current treatments and monitoring of trends to alternative agents by surveillance programmes is essential to inform guidelines at local, national and regional levels, and have led to the use of the third generation cephalosporins, such as ceftriaxone and cefixime, in countries experiencing high levels of ciprofloxacin resistant gonorrhoea. However, there are already signs that reduced susceptibility or resistance is emerging to the oral agents in this group. The classic approach of single dose, single agent therapy is now questionable as there are few, if any, alternatives for the future. It is now time to review our approach and to try to be as clever as the organism itself if gonorrhoea is to remain a treatable infection.

S9.2. ASYMPTOMATIC STIs

David Mabey *- London School of Hygiene and Tropical Medicine, London, UK*

It is difficult to determine the proportion of STIs that are asymptomatic, since this will depend on how and where cases are identified. However, it is clear that a high proportion of cases of chlamydial and gonococcal infection are asymptomatic, and that these infections are less likely to cause symptoms in women than men. It has been estimated that up to 8% of pregnant women have latent syphilis in sub-Saharan Africa. Asymptomatic infection is an important barrier to STI control, since those without symptoms do not generally seek care. Strategies for identifying them include partner notification, screening programmes, and presumptive treatment of those at risk. Partner notification rates of up to 30% have been achieved in some countries. Screening programmes for syphilis in prenatal women are highly cost-effective, but it has been estimated that less than 40% of pregnant women are screened for syphilis in sub-Saharan Africa. Screening programmes for chlamydial infection have been implemented in some European countries, but coverage has been low, and their impact and cost-effectiveness remain controversial. Presumptive treatment of female sex workers has been shown to be effective in some settings, including South Africa.

S9.3. CHALLENGES TO EFFECTIVE STI SYNDROMIC MANAGEMENT: WEAK STI SURVEILLANCE SYSTEMS.

Ron Ballard *- Division of Sexually Transmitted Disease Prevention, Centers for Disease Control and Prevention, Atlanta, GA., USA.*

The syndromic approach to STI case management is based on the identification of relatively constant combinations of symptoms and signs (syndromes) and on knowledge of the most common causative organisms of these syndromes and their antimicrobial susceptibilities. Clinical algorithms (flow charts) are then developed using locally determined aetiologies of the syndromes and the antimicrobial susceptibilities of the organisms to guide healthcare workers to manage symptomatic patients who present with a particular syndrome. Unfortunately microbiological surveillance is rarely conducted at the local level in order to establish the patterns of infection that actually cause a particular syndrome. This often results in reliance on algorithms generated by the World Health Organization, which may be inappropriate.
Although not used at the individual level, high quality STI laboratory services will remain important at the public health level where they will continue to contribute to the development and validation of national STI case management guidelines and assist in epidemiological and microbiological surveillance. It is important that, at least, regional STI laboratory capacity be maintained in order to support ongoing STI microbiological surveillance activities. Microbiological surveys to validate STI syndromic algorithms should be undertaken at 3-4 yearly intervals using the most sensitive and specific laboratory tests available. Where sub-optimal tests cannot be avoided, prevalence rates should be adjusted to account for the relative sensitivities and specificities of the tests used when compared to “gold standard” tests. While molecular tests are preferred, it is important to maintain culture capability in order to perform antimicrobial susceptibility testing of certain key causative organisms.
It may be important to perform periodic aetiological studies in symptomatic patients in special categories, such as female sex workers and HIV-positive patients, since their patterns of infection may be significantly different to those of the general population.
In the future, it is anticipated that inexpensive, point-of-care diagnostic tests for chlamydial, gonococcal and trichomonal infections will be used as an adjunct to syndromic algorithms in order to reduce the amount of overtreatment inherent in syndromic management. These tests would also be valuable for the detection of asymptomatic infections in screening programmes.

S10.1. GENITAL WARTS: EPIDEMIOLOGY, CLINICAL MANAGEMENT, AND PREVENTION

Hunter Handsfield *- Battelle Centers for Public Health Research and Evaluation, University of Washington Center for AIDS and STD, Seattle, Washington, USA*

Anogenital warts, 90% of which are caused by human papillomavirus (HPV) types 6 or 11, are among the most common STIs, typically accounting for 5-10% of clinical diagnoses in STD/GUM clinics in industrialized countries. Although usually an outwardly trivial health problem, anogenital warts cause substantial psychosexual morbidity and account for significant expenditures in STI care owing to the cost and inefficiency of therapy and high rates of recurrence. Nevertheless, most infections resolve spontaneously over several months. While infections due to other HPV types usually remain asymptomatic, cohort studies suggest that >80% of incident HPV-6 or -11 infections in women result in macroscopic, clinically apparent warts. The large majority of cases result from vaginal or anal intercourse; transmission by orogenital exposure or mutual masturbation appears to be rare. Inoculation probably requires microscopic abrasion, and most warts present at sites of maximum friction during sexual exposure, i.e. the penis, vaginal introitus, labia minora, or anus. Circumcision provides substantial protection against penile warts. Genital warts present with 4 classical morphologies: condylomata accuminata, with a classical “cauliflower” appearance and, on mucous membranes and moist skin, fronds with central capillaries readily observed with modest magnification; keratotic warts with horny surfaces, typically appearing on dry skin; papular warts, presenting as smooth papules; and flat warts, the most difficult to recognize macroscopically. Treatment is based on physical, chemical, or immunologic ablation with cryotherapy, podophyllin resin, tri- or bichloroacetic acid, cautery, surgical extirpation, podofilox, or imiquimod. As implied by the multiple therapeutic options, none is fully satisfactory, repeated treatment usually is required, and short term (several months) recurrence rates are high. The quadrivalent HPV vaccine provides effective protection against HPV-6 and -11. In settings with successful cytology-based cervical cancer prevention, preventing genital warts probably will account for a high proportion of cost effectiveness of routine immunization against HPV.

S10.2. THE IMPACT OF HUMAN IMMUNODEFICIENCY VIRUS ON HUMAN PAPILLOMAVIRUS INFECTION

Zizipho Mbulawa *- Institute of Infectious Disease and Molecular Medicine, University of Cape Town & National Health Laboratory Service, Groote Schuur Hospital, Observatory, Cape Town, South Africa. 2: David Coetzee - School of Public Health and family medicine, Faculty of health sciences, University of Cape Town, 3: Dianne Marais - Institute of Infectious Disease and Molecular Medicine, University of Cape Town, 4: Anna-Lise Williamson - Institute of Infectious Disease and Molecular Medicine, University of Cape Town & National Health Laboratory Service, Groote Schuur Hospital, Observatory, Cape Town, South Africa.*

HIV and cervical cancer are major Public Health problems in Africa. Women with HIV are known to be at greater risk of developing cervical cancer and developing the cancer at a younger age than HIV negative women. It is important to understand the impact of HIV co-infection on HPV infections. The impact of HIV co-infection on human papillomavirus (HPV) was studied in heterosexual couples in Cape Town. Genital HPV detection was significantly more common among HIV-infected women than among HIV-negative women; similarly, HPV detection was significantly more common among HIV-infected men than among HIV-negative men. HIV-infected or HIV-discordant couples were more likely to to be HPV type concordant and to share more than one HPV type compared to HIV negative couples. Women with a high HPV load frequently shared HPV types with their male partners, suggesting that a high HPV load may play a role in HPV transmission between partners. Men, whether HIV infected or not, with HIV-positive female partners were found to have a significantly higher LR-HPV prevalence compared to those with HIV-negative female partners. Male HIV status was not found to influence the LR-HPV or HR-HPV prevalence in their female partner. Therefore female HIV-positive status significantly increases LR-HPV prevalence of their male partner but not HR-HPV prevalence.

S10.3. ISSUES FOR HPV VACCINE ROLL OUT

Suzanne M. Garland *- Director of Microbiological Research and of Clinical Microbiology and Infectious Diseases Royal Women's Hospital, Senior Consultant Microbiology at Royal Children's Hospital. Professor, Faculty of Medicine, Dentistry and Health, Department of Obstetrics and Gynaecology, University of Melbourne.*

In June 2006, a quadrivalent HPV vaccine was approved by the US Food and Drug Administration (FDA) and by the Therapeutic Goods Administration (TGA) Australia for the prevention of HPV 6/11/16/18-associated cervical cancer, adenocarcinoma in situ, and cervical intraepithelial neoplasia (CIN) grades 1 to 3, vulvar intraepithelial neoplasia (VIN) and vaginal intraepithelial neoplasia (VaIN) grades 2/3, and genital warts in women. A bivalent vaccine that protects against HPV 16 and 18 was licensed in Australia by the TGA in May 2007 and in Europe in September 2007. Licensure for both vaccines was based on the very high efficacy, immunogenicity and safety, in phase 3 vaccine trials. They are being recommended for girls aged 11 to 12 years, and in some countries, catch-up programs for those up to 26 years are also being offered. Implementation of vaccine programmes has varied in different countries: those using a government funded school-based program have shown the greatest compliance rates and in the order of near 80% (Australia and the United Kingdom which have used to be quadrivalent and bivalent vaccine respectively).
More recently, both vaccines are licensed in some countries for women up to 45 years, based on immunogenicity and/or disease prevention from the vaccine related HPV types. In some countries, vaccination for boys aged 9 -12 has been endorsed based on immunobridging data. Vaccination of males with the quadrivalent vaccine has also shown efficacy from external genital lesions from vaccine related types.. These prophylactic vaccines have the potential with good coverage, to reduce the burden of disease from vaccine-HPV related types. However those countries with the greatest burden of disease have the greatest challenge in affording the vaccines, implementation with efficient delivery systems, yet are those most worthy of such a great public health initiative.

S11.1. COMMERCIAL SEX WORK: AFRICAN PERSPECTIVES: BENIN.

Fernand A Guedou*, M Alary, CM Lowndes, A Guedeme, E Baganizi, H Meda, M Ndour, CAB Gnintoungbe, G Batona, N Davo, S Anagonou, A Gbaguidi, M Zannou*

Background
Commercial sex work perspectives with regard to AIDS control in Africa depend largely upon the impact of preventive interventions targeting female sex workers (FSWs) and their male clients (MCs). We report the results of the impact assessment of such an intervention, funded by the Canadian International Development Agency (CIDA) and implemented from 1993 to 2006 in Benin.
Methods
The intervention targeted FSWs and their MCs, and included STI care at dedicated clinics, condom promotion through peer education, capacity building, community development and empowerment activities. Within the project, regular serial cross-sectional surveys of HIV/STI prevalence and sexual behaviours were carried out among FSWs and their MCs from 1993 to 2008. In 2006, the responsibility of implementing the intervention was transferred from CIDA to the national authorities. The new model includes only BCC, STI care and ARV as entirely separate components.
Results
Up to 2005, gonorrhoea prevalence declined significantly ($p<0.0001$) from 43.2% to 2.8% in Cotonou and from 31.0% to 3.8% in other cities. HIV prevalence declined from 53.3% to 33.3% ($p<0.0001$) in Cotonou and from 59.5% to 34.7% ($p=0.006$) elsewhere. Similar trends were observed among MCs. However, between 2005 and 2008, after change in intervention model, there was a significant increase in gonorrhoea prevalence among FSWs to about 6% and no improvement in other indicators, correlating with a significant decrease in consistent condom use as reported by the clients. This could possibly be due to the lack of integration of intervention components after 2006.
Conclusion
All data point out to a significant impact of interventions targeting FSWs and their MCs in Benin over 15 years. But all components of interventions targeting FSWs should be fully integrated to maximize effectiveness. With adequate, well-integrated and sustained interventions, FSWs could be uniquely efficient partners in controling AIDS in Africa.

S11.2. COMMERCIAL SEX IN LATIN AMERICA

Patricia J. Garcia

Sex workers and their clients are one of the major core groups for STD/HIV transmission and their relative contribution varies depending on the settings. In Latin America, female sex workers (FSW) as well as males sex workers play an important role in the STD/HIV epidemic. Proportion of men reporting paying for sex in Latin America varies between countries significantly. Education, inconsistent condom use, number of clients and limited access to health care are important factors affecting STI prevalence in these populations. Most of the countries have prevention activities directed towards FSW, as part of their National STI/HIV, with at least HIV and syphilis testing. There have been some interesting projects designed to control STIs in commercial sex workers (CSW). In Peru, within the PREVEN study (Community Randomized Trial of STI Prevention), a three year mobile outreach intervention in 10 cities was implemented offering screening and free treatment for gonorrhea (GC), Chlamydia (CT) and Trichomonas (TV), presumptive metronidazole treatment for vaginal infections, counseling and condoms in 48,207 encounters at sex venues with FSW. GC and CT were tested centrally in Lima by PCR. Overall CT rates declined from 15.4% to 5.6% among FSW who participated in at least half of the intervention cycles. Reported condom use with the last client increased from 65% to 93%. Since male sex workers were found to share venues with FSW, a short intervention with screening, counseling and condoms was implemented and proved to be feasible. The mobile outreach for CSW at sex venues represents an effective, feasible way to improve access to health services, increase prevention behaviors and lower STI rates among a high risk, hard to reach population. This model could be use in other LA countries and could be an effective means of reducing STD transmission at the population as a whole.

S11.3. SEX WORK: ASIA-PACIFIC PERSPECTIVES

Basil Donovan *- National Centre in HIV Epidemiology and Clinical Research; and Sydney Sexual Health Centre, Sydney, Australia.*

To quote a WHO 2001 report 'The sex industry in Asia is changing rapidly.' This has probably always been the case as sex work is one of the most portable and adaptable of human services. Sex work is only affected at the margins by official policies that attempt to control it.
Sex work in the Asia-Pacific Region is highly segmented. The section of the industry that caters for wealthier travelers and 'sex tourists' accounts for only a few percent of the industry as a whole, though it is by far the most visible. Instead, the great bulk of commercial sex services are low key and targeted at local men. Local demand varies dramatically: with only 2% of men in Vietnam or Australia reporting that they paid for sexual services in the past 12 months compared to 9% of men in China and 15% of men in Cambodia (MAP Report 2005).
The spread of HIV and other STI through commercial sex is not inevitable. Asia-Pacific countries that have implemented programs that have (a) educated sex workers and their clients, (b) improved access to condoms, (c) provided quality sexual health services for sex workers, (d) addressed the overlap between sex work and IDU-related HIV transmission, and (e) improved the social, political and security environment of sex workers had consistently netted major health gains. Unfortunately some countries in the Region have paid the price for turning a blind eye to the sex industry.

S11.4. ASIAN PERSPECTIVES: SINGAPORE

Roy Chan

The regulated medical surveillance scheme for brothel-based sex workers was introduced in 1976 to enhance STI prevention and control and address law and order issues. Since that time it has been extremely successful in reducing incidence and prevalence of STI among brothel-based SW and their clients. In contrast unregulated SW outside of the scheme continue to have much higher infection rates. In 2008 cervical gonorrhoea prevalence was 0.29% in regulated SW, and 2.53 in unregulated SW, cervical chlamydia infection was 3.02% and 10.75%, HIV infection was 0.03% and 0.76%, syphilis was 0.17% and 3.04%. Condom use rates have remained at high and steady rates for regulated SW.
A study was conducted in entertainment establishments to determine the prevalence of indirect commercial sex workers (IDSW), condom use and STI screening behaviours.
Methods
Phase 1: Naturalistic observation

Phase 2: Cross-sectional study, 2-stage sampling, data collection through interview using simulated clients.
Phase 3: In-depth interviews

Results

There were 270 entertainment establishments with estimated 4860 workers employed as hostess, dancers, beer promoters. 70 % of establishments had sexual services, about half of female entertainment workers engaged in paid sex. Sexual services included 'very short' time (within establishments), 'short time' (an hour in nearby hotels), 'long time' (after work, overnight). The majority were single, had secondary education, worked as an IDSW for under 6 months, worked alone, charged between US$60-$120 per client. All engaged in vaginal sex, 74% in oral sex and 20% in anal sex. Condom use was initiated by 62%, 49% had ever gone for STI screening. All were keen to be screened for STIs and were keen to learn condom negotiation skills, all did not carry condoms for fear of being arrested by authorities.

Conclusions

IDSWs are at risk for acquisition/transmission of STI/HIV. Urgent measures need to be implemented to address gaps in disease prevention.

S12.1. TREATMENT OF STIs AS A PREVENTION INTERVENTION FOR HIV INFECTION: EXPERIENCE FROM GENITAL HERPES RESEARCH

Philippe Mayaud *- Clinical Research Unit, London School of Hygiene & Tropical Medicine, London, UK*

Clinical, epidemiological and biological studies have shown that infection with herpes simplex virus type-2 (HSV-2) increases both the acquisition of HIV and viral shedding in HSV-2 and HIV co-infected individuals, thereby increasing their infectious potential for transmission. Reciprocally, HIV infection alters the natural history of HSV-2 infection and severely immune-suppressed co-infected patients may experience more frequent, severe or prolonged symptomatic recurrences, as well as increased frequency of HSV-2 genital shedding facilitating the sexual transmission of either virus. These synergistic relationships underscored the importance of controlling HSV-2 for HIV prevention.

Randomised controlled trials (RCT) were conducted in Africa, Asia, Latin America and the USA to determine the impact of HSV-2 control, using either short-term episodic treatment of genital ulcers, or suppressive HSV therapy taken daily, and included HIV-infected and uninfected populations. The research found that: 1) HSV-2 episodic therapy was beneficial in some patient groups and some settings in terms of ulcer healing and reduction of HIV levels in the genital tract; 2) HSV-2 suppressive therapy did not appear to prevent HIV acquisition; 3) while HSV-2 suppressive therapy generally decreased HIV levels in plasma and genital secretions in most studies; 4) this was not enough to decrease HIV transmission between HIV serodiscordant couples.

Despite these globally disappointing results, recommendations have been made to include anti-herpetic therapy in WHO and national GUD syndromic management guidelines. The decision was based on the high prevalence of HSV-2 in most settings, the clinical benefits to those treated, and a favourable cost-benefit profile. Given the effect of HSV-2 suppressive therapy in slowing HIV disease progression in one trial, its role as adjuvant therapy in HIV-infected patients deserves further evaluation.

Several important lessons were learnt in this process. Firstly, the systematic and concerted international effort to collect evidence, culminating with the conduct of large multicentric RCTs was important in order to demonstrate the effectiveness or not of these new interventions, and so in guiding policy development. Second, lessons were learnt about communicating the results of trials for HIV prevention with high expectation to a broad range of stakeholders. Ultimately, a greater sense of trust was built between researchers, the community and policy-makers creating an enabling environment for future research partnerships for HIV prevention.

S12.2. TRANSLATING RESEARCH INTO POLICY: INTRODUCTION OF ACYCLOVIR INTO NATIONAL STI TREATMENT GUIDELINES FOR THE SYNDROMIC MANAGEMENT OF GENITAL ULCER DISEASE - A COUNTRY EXAMPLE - MALAWI

Sam Phiri *- Lighthouse Trust, Lilongwe, Malawi*

Background

Genital ulcer disease (GUD) continues to be a common presentation to sexually transmitted infections (STI) clinics in sub-Saharan Africa, although the aetiology of ulcers has shifted recently. The World Health Organisations (WHO) guidelines (2003) recommended inclusion of acyclovir in treatment of GUD if over 30%

of ulcers are due to herpes simplex virus type 2 (HSV-2). The Malawi STI treatment guidelines (2002) did not include acyclovir for treatment of genital herpes and there was a need to revise them.

Methods

In 2003, Malawi considered the inclusion of acyclovir in GUD management but required a local evidence base. We conducted a randomised double-blind placebo-controlled trial of acyclovir 800mg BID for five days for GUD management at Kamuzu Central Hospital STI clinic, Lilongwe, Malawi. The main objectives were to determine impact of acyclovir on ulcer healing, as well as lesional and genital HIV shedding in respect of aetiology of GUD. We reviewed GUD aetiologies from 1992-2007 and undertook a consultative process to review treatment guidelines.

Results

HIV prevalence among GUD patients remains at 60%. The proportion of patients presenting with GUD declined from 778/1295 (60.0%) in 1992-3, to 657/1510 (43.5%) in 2007 ($p<0.001$). Bacterial aetiologies declined over the years but HSV-2 increased from 23% in 1992-93 to 67% in 2007 ($p<0.001$). There was little impact of acyclovir on ulcer healing but acyclovir was associated with reduced detection of lesional and seminal HIV-1 RNA (adjusted RR=0.64, 95%CI 0.41-0.99; unadjusted RR=0.59, 95%CI 0.39-0.89). This suggests that herpes therapy may reduce genital HIV-1 transmission.

Discussion

GUD remains a prominent STI presentation in Malawi and HSV-2 is now the prominent GUD pathogen. GUD remains highly associated with HIV, despite a falling HIV prevalence among non-GUD patients. With this evidence, a consultative process led by Ministry of Health, National AIDS Commission and their stakeholders reviewed the Malawi national STI treatment guidelines and included acyclovir in GUD syndromic management.

S12.3. STI TREATMENT AS A COMPONENT OF HIV PREVENTION

Božicevic I. *Prevalence of HIV and other STIs and risk behaviours among MSM, and interventions for control in Croatia and other countries of eastern Europe*

Background

Little data is available on HIV and STI epidemics and programmatic responses among men who have sex with men (MSM) in countries of eastern Europe.

Objectives: To present data on HIV, STIs and sexual behaviours among MSM in Croatia and eastern European countries, and interventions for control.

Methods

Bio-behavioural survey using respondent-driven sampling among MSM in Croatia, and literature review.

Results

MSM transmission contributes to over 50% of reported HIV cases in several countries of central Europe, while in the Central Asian Republics (CAR) this ranges between one case reported in Kyrgyzstan to 2.9% in Georgia. More than half of 27 countries included in the review either do not have HIV prevalence data among MSM, or its quality is insufficient. In eight countries HIV prevalence among MSM is close to or higher of 5%. Several countries such as Bulgaria, Croatia, Georgia, Kyrgyzstan, the Russian Federation and Turkey have high lifetime syphilis prevalence. Prevalence data on HSV-2 are only available from the RDS study in Croatia, indicating a prevalence of 9.4%. Data on gonococcal infection were found in only two countries: Croatia, rectal gonorrhoea, 13.2% (n=360) and Turkey, 3.0% (n=166). Prevalence of rectal Chlamydia trachomatis infection was measured only in Croatia, and was found to be 9.0% (n=360). Behavioural patterns, particularly in CAR, include high frequencies of partnerships with women and commercial sex activities. The data from the most recent proposals to the GFATM suggest that coverage with planned interventions among MSM is modest compared to coverage among IDUs and SW. Key challenge to implementation of more comprehensive HIV and STI prevention is the insufficient funding and almost complete lack of evaluation of interventions.

Conclusions

Along with the development of STI services for MSM, there is a need to scale up behavioural interventions and increase HIV testing and hepatitis B vaccination uptake.

S12.4. SYPHILIS PREVALENCE IN MOST-AT-RISK POPULATIONS IN SOME COUNTRIES OF THE COMMONWEALTH OF INDEPENDENT STATES (CIS) – IMPLICATIONS FOR STI CONTROL AND HIV PREVENTION

Lali Khotenashvili *- WHO/EURO*

Socio-politic-economic changes that number of CIS went through for the past decades have influenced health seeking behavior as well as STI services delivery and STI settings in many CIS can barely respond to existing needs and provide quality services, especially in rural areas. In some CIS the populations being most at risk for and vulnerable to STI often have little trust in official STI settings because of past history of stigma and discrimination. The fast growing official and unofficial private sector is often unaffordable for the majority of those people preventing them from getting access to STI services needed. STI surveillance is mainly weak across the region and data is scarce and inconsistent. Nevertheless, the available data suggests high syphilis prevalence in some CIS. In Tajikistan syphilis prevalence amounted to 12,6% in SW, 10,6% in IDU and 9,1% in prisoners (in pilot cities) in 2007. Some data show the existing increasing tendencies. In Kyrgyzstan, for instance, syphilis prevalence in pilot cities increased in SW from 26% in 2005 to 35% in 2006; in IDUs from 12,3% in 2004 to 13,6% in 2005 (prevalence was twice as high in women amounting to 20,5%); in MSM from 4% in 2004 to 23% in 2006. In Kazakhstan syphilis incidence per 100 000 population was 45,9 in 2007. The above mentioned indicates a public health importance in its own and a potential factor for spread of HIV epidemic which becomes even more important because of observed rising tendency of sexual transmission of HIV infection there. WHO EURO assists countries to further scale up existing efforts to contract evidence and human rights' based policies and practices and strengthen STI control and prevention.

S13.1. IUSTI REGIONAL CHALLENGES: AFRICA

David A. Lewis *- STI Reference Centre, National Institute for Communicable Diseases (NHLS), South Africa*

Africa is the continent most affected by HIV/AIDS with an estimated 22 million HIV-infected individuals in the Sub-Saharan Region (UNAIDS, 2008). In addition, in 1999 it was estimated by the World Health Organisation (WHO) that the African Sub-Saharan Region had 69 million cases of treatable bacterial and protozoan sexually transmitted infections (STIs), i.e. syphilis, gonorrhoea, chlamydial infection and trichomoniasis.

The WHO's 'Global Strategy for the Prevention and Control of STIs: 2006-2015' highlights the need to try and improve the quality of STI services and STI strategic information on the African continent. Data from several African countries have confirmed the rapid spread of ciprofloxacin resistant gonococci within several South African cities as well as highlight the high HIV co-infection rates in patients with common STI syndromes. The syndromic management approach has contributed to the decline in chancroid and syphilis in many countries. Whilst this has been seen as a 'success', the replacement of easily treatable chancroid by recurrent genital herpes in the context of an HIV epidemic has created new challenges for the control of genital ulcer disease.

Many Africans are still without access to anti-retroviral (ARV) drugs despite 67% of the global burden being within the Sub-Saharan Africa Region. There is much work to be done in terms of negotiating cheaper prices for ARVs, providing African countries with cheap and affordable HIV medicines and establishing sustainable ARV programmes. In addition, there is a need for Governments within the Region to de-politicize HIV/AIDS and to discuss HIV issues more openly in an attempt to reduce stigma.

Finally, the importance of gender-based approaches to HIV care and prevention and the human rights of sex workers, men who have sex with men, and adolescents should not be forgotten within the continent. These are important areas requiring attention within national sexual health programmes.

S13.2. THE HIDDEN EPIDEMIC OF HIV AND OTHER STIS IN ASIAN MEN WHO HAVE SEX WITH MEN

Brian P Mulhall *- Regional Chair, IUSTI Asia Pacific branch*

Unprotected male-to-male sex with multiple partners is one of the three main modes of transmission of HIV in the Asia-Pacific region -the other two being unprotected sex in the context of sex work and unsafe injecting drug use (Sheldon Shafer, Director, UNESCO, Bangkok, 2008). Overall, MSM are as much as 25x more likely to be living with HIV than the general population. Unpublished data from UNAIDS in 2008 show that MSM in urban areas of Thailand, Cambodia, and Myanmar are experiencing severe HIV epidemics with prevalence greater than 10%. MSM in cities in Vietnam, Lao PDR, Indonesia, China, Nepal, and India face intermediate level hat has soepidemics with prevalence of 2% to 10%. Emerging MSM epidemics are now evident in Pakistan, Bangladesh, East Timor, and the Philipines. There are also alarming rates for other STIs, particularly syphilis. A series of amfAR documents in 2007-9 pose the question, when so many resources are devoted to HIV, how could the entire international community have overlooked or simply ignored the rapidly rising rates of HIV infection among MSM? Part of the answer it seems, is the exclusion of MSM from sentinel surveillance for HIV, including behavioural surveillance. Even worse, the statistics likely describe only a fraction of MSM at risk for HIV. There are many others who do not identify as gay or transgender or any particular sexual identity, and who have sex with men and women (perhaps millions over the region, according to the Asian Epidemic Model). Asian countries will be unable to retain their status of 'low level' epidemic and/or reduce overall population prevalence below 0.1% without scaling up HIV prevention, care and support interventions for MSM.

S13.3. SEXUAL HEALTH IN EUROPE (IUSTI REGIONAL CHALLENGES)

Keith Radcliffe *- IUSTI European Regional Director*

The European Branch of the IUSTI conforms to the WHO definition of Europe i.e. 53 countries with a combined population of 881 million people. There is a very wide distribution of GDP and per capita health spend across this diverse region. The epidemiology of HIV and STI is also very different between the Western and Eastern parts of the region, and the most important variations will be discussed, in particular that HIV in Western Europe is principally found in MSM and migrants from high prevalence areas, whereas in the Eastern part of Europe it is more related to IVDU and is becoming a generalised heterosexual epidemic. Across the region STI, including HIV are not under control. Much attention is been given to normalising HIV testing in order to diagnose persons before they become seriously ill. It is also theoretically possible that this would help to reduce further epidemic spread.
Different models of care in Europe will also be discussed, in particular that in most of Europe venereology is a sub-speciality within dermatology, meaning that it tends to be the poor relation with consequently a smaller voice in advocacy over health issues. The current financial crisis, which will result in major reductions in public expenditure across Europe in the next few years, may also be particularly deleterious to public health endeavours such as STI prevention and control.

S13.4. REGIONAL CHALLENGES IN LATIN AMERICA: ELIMINATION OF CONGENITAL SYPHILIS

Patricia J. Garcia

Syphilis remains an important public health problem in Latin America (LA). The consequences of untreated syphilis in pregnancy include congenital syphilis and adverse pregnancy outcomes. Maternal syphilis is several times more frequent than HIV infection in pregnant women in LA. Prevention of congenital syphilis (CS) and stillbirth is possible, with relatively simple and cost effective interventions directed towards women during prenatal care: screening for syphilis, treatment of positive cases and treatment of the partner. In many countries policies to promote elimination of CS are in place, but implementation is poor, resulting in high rates of CS and of stillbirths. In the PAHO/WHO Region, HIV/STI Plan for the Health Sector 2006-2015 included as one of its goals the elimination of congenital syphilis. A survey performed in 2008 to National STI Program Coordinators from 19 LA countries (Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, the Dominican Republic, Uruguay and Venezuela), revealed that only 10 had an active system for screening pregnant women for

syphilis. The commitment to eliminate congenital syphilis has been taken up by all 19 countries but at least 12 out of the 19 are still far from reaching the minimum acceptable rate of 0.5 cases per 1000 live births suggested by PAHO. Bolivia and Paraguay are the countries that must make a greater effort to reach the proposed goal. Some of these countries do not consider the reporting of congenital syphilis or maternal syphilis to be compulsory, so it is not clear what the magnitude of the problem is. There are some recent and interesting developments in some LA countries trying to advocate at the community level and governmental level, actions for the elimination of CS.

S13.5. THE NORTH AMERICA IUSTI BRANCH REPORTS ON NEW AND CHALLENGING STI MATTERS IN NORTH AMERICA.

Charlotte Gaydos - *Baltimore, USA*

Challenges to reducing STIs continue to be numerous. One such example is the provision of Chlamydia trachomatis screening for sexually active women under the age of 26 years, as recommended by professional organizations. The CDC Morbidity and Mortality Weekly Report reported information from the National Committee for Quality Assurance (NCQA). Surveys from 583 health plans with 2.8 M sexually active young females indicated that according to HEDIS data, the annual screening rate for chlamydia increased from 25.3% in 2000 to 43.6% in 2006, and then decreased slightly to 41.6% in 2007 (25% increase since 2000). For the United States, the screening rate was 41%. By Region: Midwest: 38.5%; Northeast; 45.5%; South 37.3%; West 45.0%. Barriers for providers included: lack of reimbursement; lack of awareness that patients are sexually active; lack of knowledge that screening can be performed without a pelvic exam.

In 2007, there were 356,524 cases of gonorrhea reported to the CDC. There is increasing awareness of the ability of N. gonorrhoeae to develop resistance to antibiotics. Fluoroquinolones are no longer recommended for treatment in the U.S. The next challenge is to be cognizant of the need to monitor resistance to third generation cephalosporins. Given that no new antimicrobials are being developed to treat N. gonorrhoeae infections and reports of ceftriaxone resistance have been accruing, scientists are concerned. Clinical needs assessments from expert scientific advisors, as well as clinicians, using surveys and focus groups, reported the increasing acquisition of resistance to quinolones and cephalosporins was one of the most important global health problems in diagnosis and treatment of gonorrhea.

Another tremendous challenge for the U.S. is undiagnosed HIV infection. The CDC estimates that approximately 1–1.2 million people in the U.S. are infected with HIV, and one quarter of these are unaware of their infection. Early diagnosis of unrecognized infection increases the opportunity for patients to receive clinical treatment and can decrease HIV transmission in the community. Emergency departments and primary care sites are most frequent sites for encountering ‘late testers’ (i.e. patients diagnosed with AIDS within 1 year of initial HIV diagnosis). These sites are the most common healthcare setting where ‘missed opportunities’ for HIV testing occur. Our challenge is to increase testing and identify newly infected persons in order to link them to preventive services, clinical care, and social services. CDC guidelines recommend an “opt out” policy under which HIV testing be normalized and that it be offered routinely for those patients 15-54 years of age who are in contact with primary care, unless the patient specifically “opts –out”. Implementation of these recommendations has been exigent.

Mycoplasma genitalium has been recently associated with urethritis in men and cervicitis in women. While there is consistent evidence of the association with urethritis, not all studies support a role for the relationship with cervicitis. It may be time to systematically institute more routine screening studies for this organism in order to determine the causal association with sequelae in female reproductive tract infection. Widespread ability to screen for this infection, however, is hampered by the lack of a commercially available test. Researchers anticipate that manufacturers will develop such an assay in order to facilitate longitudinal studies to answer the causal association of M. genitalium with upper tract disease.

Another STI challenge for the U.S. is the high prevalence of Trichomonas vaginalis which goes undiagnosed because there are not highly sensitive NAAT-type tests commercially available. Since it is not a reportable infection, estimates of incidence are largely unknown except by research studies. Trichomonas has been associated with PID and preterm delivery, as well as elevated risk of acquiring other STIs and HIV. Insurance claim studies have estimated the annual economic burden to be $18.9 million among all women from the U.S. Is it time to make trichomonas a reportable infection? Clearly we still have challenges ahead of us.

Oral Presentations

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O4.1	Lindi Roberts	IMPACT OF SEXUALLY TRANSMITTED INFECTIONS AND GENITAL TRACT INFLAMMATION ON RISK OF HIV ACQUISITION IN HIGH RISK HIV UNINFECTED WOMEN IN SOUTH AFRICA
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O4.3	Magnus Unemo	GENOMIC CHARACTERIZATION OF THE SWEDISH NEW VARIANT OF CHLAMYDIA TRACHOMATIS (NVCT)
O4.4	Tanvi Agrawal	ROLE OF TOLL LIKE RECEPTORS ON HUMAN CERVICAL MONOCYTES IN PROVIDING PROTECTIVE IMMUNE RESPONSE TO CHLAMYDIAL INFECTION
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O5.3	Ulrich Marcus	INCREASING PREVALENCE AND INCIDENCE OF SYPHILIS AMONG MEN WHO HAVE SEX MEN (MSM) AFTER THE YEAR 2000 IN THE GERMAN HIV-1 SEROCONVERTER COHORT
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O8.1	Isaiah Kalanzi	THE ROLE OF APPOINTMENT SYSTEM IN ENHANCING PERFORMANCE MANAGEMENT WHEN OFFERING HIV/AIDS SERVICES-TASO MASAKA EXPERIENCE
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O8.6	Carolyn Marie Audet	BARRIERS FOR COLLABORATION BETWEEN TRADITIONAL HEALERS AND NATIONAL HEALTH SYSTEM IN CARING FOR PATIENTS WITH STDS IN ZAMBZIA PROVINCE, MOZAMBIQUE: FINDINGS FROM A QUALITATIVE STUDY

O1.1. UTILITY OF TOTAL LYMPHOCYTE COUNT AS A SURROGATE MARKER FOR CD4 CELL COUNT IN HIV INFECTED CHILDREN

Leah Githinji *- University of Nairobi. 2: Elizabeth Obimbo – University of Nairobi*
3: Dorothy Mbori Ngacha - University of Nairobi

Background
Access to CD4+ T cell counts is limited in most resource constrained settings. There is therefore need to evaluate less expensive laboratory methods for detecting level of immunosuppression.
Methods
Paired CD4+ T cell count and TLC data were collected from hospital records of treatment nave HIV infected children. The sensitivity, specificity, positive and negative predictive value of TLC was determined using the WHO CD4+ T cell cut-off values as the gold standard.
Results
A total of 487 children with a median age of 36 months (1-144 months) were enrolled. The correlation between TLC and CD4+ was r = 0.66 ($p<0.001$). The highest correlation was seen in children with severe immunosuppression (r= 0.72, $p<0.001$) and age category >59 months (r=0.68, $p<0.001$).The WHO recommended TLC values for severe immunosuppression of 4000, 3000, 2500 and 2000 cells/mm3 for age categories <12, 12-35, 36-59 and >59 months respectively had sensitivity of 25%, 23%, 33% and 62% respectively, specificity of 100%, 98%, 92% and 83% respectively and positive predictive values of 100%, 93%, 68% and 74% respectively. Raising the TLC cut offs to 7000, 6000, 4500 and 3000 cells/mm3 for each of the stated age categories resulted in sensitivity of 71%, 64%, 56% and 86% respectively and specificity of 73%, 62%, 54% and 68% respectively.
Conclusion
Total lymphocyte count has a better correlation with CD4+ count in the age groups >59 months and in the subset of children with severe immunosuppression.
The WHO recommended TLC cut-off for severe immunosuppression has low sensitivity which may be improved by raising the cut-off level.

O1.2. THE IMPACT OF PROVIDER-INITIATED (OPT-OUT) HIV TESTING AND COUNSELLING OF STI PATIENTS IN CAPE TOWN, SOUTH AFRICA. A CONTROLLED TRIAL.

Natalie Leon *- Medical Research Council of South Africa (MRC) and School of Public Health, University of Cape Town (UCT). 2: Pren Naidoo - Independent public healht consultant 3: Catherine Mathews - MRC and School of Public Health, University of Cape Town 4: Simon Lewin - MRC and Norwegian Knowledge Centre for the Health Services 5: Carl Lombard - MRC Biostatistics Unit*

Background
Evidence is limited on the impact of Providerinitiated HIV testing and Counselling (PITC) on STI patients in high prevalence settings. The study evaluated whether the PITC approach increased HIV testing rates of new STI patients as compared to standard Voluntary Counseling and Testing (VCT) at primary care level in South Africa. Secondary outcomes were the rate of offering and declining the HIV test.
Methods
Nurses in intervention clinics integrated PITC into standard HIV care without additional resources. The design was a pragmatic cluster-controlled trial with 7 intervention and 14 control clinics.
Results
There was a significantly higher testing rate for new STI patients in the intervention group compared to the control group (56,4% vs 42.6%, a 13.8 % difference $p=0.037$) despite a significantly higher test refusal rate (20.4% intervention vs 8.1% control, $p=0.0006$). Providers were more likely to offer the HIV test in intervention clinics, where 23,2% were not offered the test vs 49.3 % in the control group ($p=0.0029$). There was a similarly high proportion of patients who tested HIV positive in both groups (19% intervention and 21 % control) and the gender profile was similar with 43% of those tested being male. The intervention also facilitated more consistent performance across intervention clinics, but there were resource-related limits to full implementation of the intervention.
Conclusions
PITC increased the rate of offering HIV testing and HIV testing rates for new STI patients. However, given the small size of the increase and the limits to implementation, this approach alone may not deliver the large-scale increases required in high prevalence, resource-constrained settings and may need to be combined with optimizing existing VCT and other creative testing and counselling approaches.

O1.3. LOW SEXUAL RISK IN A COHORT OF HOMOSEXUAL MEN CORRELATED WITH ABSENCE OF HIV-1 SUPERINFECTION IN THE YEARS 1985 TO 1997

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Background
The rate of HIV-1 superinfection depends on the number of unprotected sexual acts, sexual techniques and HIV-1 prevalence within sexual networks. Already early in the HIV epidemic, studies correlated unprotected receptive anal intercourse and number of sexual partners with initial acquisition of HIV in homosexual men. As yet, a correlation between sexual risk behavior and incidence of HIV-1 superinfection has not been determined.
Study
We screened a cohort of homosexual men for HIV-1 superinfection within the first year after seroconversion between 1985 and 1997. Self-reported sexual behavioral data was collected at 6-monthly intervals in the year before and in the year after seroconversion.
Results
In contrast to earlier reports on cohorts of commercial sex workers, drug users, and homosexual men, we did not detect HIV-1 superinfection in 68 study participants. In agreement with this finding, both HIV prevalence and levels of sexual risk behavior were lower in our cohort as compared to other cohorts where superinfection was indeed detected. Specifically following HIV-1 diagnosis, the number of sexual partners and unprotected acts of anal intercourse decreased, while condom use increased.
Conclusion
Documented cases of HIV superinfection have occurred in the context of high-risk sexual behavior and higher HIV prevalences. Safer sex practices, a reduction in number of partners, and a lower HIV prevalence were correlated with the absence of HIV-1 superinfection within the first year after SC in this study. Safer sex messages distributed during the early HIV epidemic in the Netherlands seemed to have resulted in a lower HIV prevalence, and also to the absence of HIV-1 superinfection during this period. Given the risk of treatment complications and accelerated disease progression that may accompany HIV-1 superinfection, risk reduction methods may need to be re-addressed within communities and sexual networks at high-risk for HIV superinfection like homosexual men but also commercial sex workers.

O1.4. DEVELOPING A THIRD GENERATION HIV PREVENTION INTERVENTION FOR RURAL YOUTH IN KWAZULU-NATAL, SOUTH AFRICA FEASIBILITY AND ACCEPTABILITY

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Introduction
First and second generation HIV preventions targeting South African youth focused on improving knowledge and reducing behavioural risks directly and indirectly associated with HIV acquisition. Third generation interventions take more structural and ecological approach addressing knowledge, behaviour and contextual influences on HIV risk. Umthombo Wentsha (Fountain for Youth) is an intervention research plan that involves testing a multi-component, multi-level school and community intervention package to reduce HIV incidence in both in-school and out-of-school youth in rural KwaZulu-Natal. We are currently engaged in a feasibility/acceptability study in preparation for a large-scale evaluation.
Aim
To determine the multiple roles school-community members hold which could enable positive health change in youth, and how best to facilitate their acceptance of these roles.

Methods
A mixed qualitative study employing focus groups and participatory action research tools in two stages. The first stage is a listening phase conducting focus groups with 7 school sub-communities (e.g. structural and emotional stakeholders, parents, teachers, etc.) The second stage is an action phase and involves facilitating school sub-communities in participatory planning meetings where they develop, implement and monitor a local youth HIV prevention action plan.
Results
Initial work suggests that different schools have different material and local-cultural capacities to engage positively with youth and HIV prevention. However, school communities are all concerned and can be mobilized to participate in intervention efforts. Different levels of the school community have differing stakes and conception in youth and HIV change.
Conclusions
Schools have obvious advantages for delivering HIV prevention targeting young people, but they cannot be treated as curriculum-based, information-dissemination points. Rather they encapsulate organic mechanisms of support (e.g. the school sub-communities) that can be capitalised on to create a facilitative environment supporting structural as well as behaviour change.

O1.5. IS IT FEASIBLE TO IMPLEMENT ROUTINE NAAT TESTING IN PUBLIC HEALTH SECTOR? EXPERIENCE OF IDENTIFYING ACUTE HIV INFECTION.

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Background
Identifying individuals acutely infected with HIV may represent a public health opportunity for early diagnosis of HIV and prevention of HIV transmission when individuals are most infectious.
Methods
Between November 2006 and May 2009 community health workers contacted patients attending Primary Health Care (STI, VCT, FP and other) services in Johannesburg for HIV screening. Patients were prescreened for history of high risk sexual behaviour, then counselled and tested for HIV using parallel HIV antibody testing with Determine and Unigold. Additional samples were drawn for nucleic acid amplification testing (NAAT). Acute HIV Infection [AHI] was defined as NAAT positive with previous negative or discordant antibody test within 45 days of initial screening date.
Results
Of 12682 patients contacted, 60% (7649) showed interest in HIV testing. Of those interested 44% (3369) actually consented to counselling and testing for HIV. Of the tested 42% were men [mean age 28 years, SD 7 years] and 58% were women (mean age 27 years, SD 7 years). Only 26% of patients attending STI clinics were counseled and tested for HIV. Overall, HIV prevalence was 15%. Of 2807 concordant negative and 21 discordant antibody tests, 31 were positive on NAAT, i.e 1% of those tested. STI clinics were the greatest source of AHI (38%), followed by VCT clinics (32%) and patient referrals (30%). No sexual partner was identified with AHI.
Conclusion
Identification of AHI requires significant investment, while there is poor uptake of counselling and testing for HIV generally. Opt-out testing methods using NAAT, as well as clear risk assessment guidelines may increase the identification of AHI and make interventions more feasible.

O1.6. LONGITUDINAL MONITORING OF CD38 ACTIVATION CAN OBVIATE COSTLY HIV VIRAL LOAD TESTING IN 60% OF ANTI-RETROVIRAL THERAPY (ART) RESPONDERS

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Background
Quantitative HIV Viral Load assays (VL) are currently used to monitor patient response to ART. These tests are labour-intensive and costly when performed on large patient numbers over extended periods. Lymphocyte activation, as measured by CD38 expression on CD8 T-cells, is a significant prognostic marker of HIV infection that decreases with declining viraemia. Longitudinal monitoring of CD38 activation was investigated as a cost effective, real-time alternative to VL testing to reduce the number of VL tests.
Methods
CD38+ mean-fluorescence-intensity (MFI) on activated C8+T-cells was measured by 4-colour flow cytometry, at 12 week intervals. Seventy three (73) patients (CIPRA cohort; Ethical clearance) were monitored longitudinally to >180 weeks. Follow-up visit MFI values were compared to BL-MFI as a measure of HIV-induced immune activation. VL plasma-RNA was measured at matching intervals (COBAS AmpliPrep/Amplicor, Roche Diagnostics).
Results
Sixty percent of patients (44/73) showed continuous decrease in CD38 expression, irrespective of baseline values. CD38-MFI declined to 4215% of BL at week 36 and to 30.812% of baseline at week 180, with a corresponding decrease in VL to undetectable levels (≤50 copies/ml blood) at week 24. Forty percent (29/73) of patients had transiently elevated CD38-MFI values of which 10/29 coincided with VL increases, while 19/29 showed transient MFI fluctuations not mimicked by VL changes (undetectable).
Conclusion
Longitudinal follow-up of CD38 can be monitored at a quarter of the cost of a VL test/visit. It is useful identifying good ART responders with undetectable VL and continuously decreasing CD38- MFI (60% of patients). The frequency of VL testing across a national programme could potentially be reduced for patients with continued stable CD38 expression, while VL testing is reserved to confirm elevated CD38-MFI, as a cost effective, real-time management strategy of HIV patients.

O2.1. COST-EFFECTIVENESS OF THE DUAL NON-TREPONEMAL/TREPONEMAL SYPHILIS POINT-OF-CARE TEST TO PREVENT ADVERSE BIRTH OUTCOMES IN SUB-SAHARAN AFRICA

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Background
The conventional two-step algorithm for syphilis screening of pregnant women which starts with a rapid plasma reagin (RPR) test followed, if positive, by a confirmatory treponemal test such as the Treponema pallidum passive particle agglutination assay (TP-PA) is time-consuming. It results in a relatively lower treatment rate as a result of patients failing to return for treatment. A dual non-treponemal/treponemal point-of-care test (Dual-POC) has been developed and evaluated and the sensitivity and specificity of the nontreponemal line were found to be 93.5% and 100% respectively (compared to the RPR) and 91.6% and 93.8% respectively for the treponemal line (compared to TP-PA).
Methods
We used a cohort decision analysis model to examine the relative birth and economic outcomes of the Dual-POC test in comparison with the conventional RPR+TP-PA approach, on-site RPR testing or on-site treponemal immunochromatographic strip (ICS) testing. Data used in the model were assembled from published literature. We assumed that the cost of the Dual-POC was the same as the RPR (2.31 2008 US dollars).
Results
Our preliminary results indicated that for a cohort of 1,000 women (10% infected and a return rate of 67%), the RPR+TP-PA algorithm would prevent 25 adverse birth outcomes; the on-site RPR, 27; the Dual-POC, 32 and the ICS, 37 out of a total of 38 potential adverse birth outcomes. On-site ICS was the most cost-saving ($32,000); On-site Dual-POC saved $29,000; On-site RPR saved $24,000; Lab-based RPR+TP-PA saved $22,000. The Dual-POC remained more cost-saving than the RPR+TP-PA and RPR approaches when the cost increased to $7 (2008 dollars). Additionally, the relative cost-savings increased with prevalence of infection.
Conclusion
The new Dual-POC test may help save costs and improve birth outcomes in resource-poor settings where the prevalence of syphilis is high. Additionally, the Dual-POC test would reduce overtreatment when compared to the treponemal ICS test.

O2.2. COMPARISON OF SELF-TAKEN VAGINAL SWABS (VVSS) FOR THE DETECTION OF GONORRHOEA USING THE GEN-PROBE APTIMA COMBO 2 ASSAY VERSUS CLINICIAN-TAKEN URETHRAL AND ENDOCERVICAL SWABS FOR THE DETECTION OF GONORRHOEA USING CULTURE

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Background
No UK guidelines exist for non-invasive testing for gonorrhoea in women. Validation of NAATs in low prevalence populations has been recommended. Our study is the first to compare gonorrhoea detection on patient-taken VVSs by AC2 assay with gold-standard culture of clinician-taken urethral and endocervical swabs.
Methods
Women aged 16 and over, requesting STI testing, consenting to a self-taken VVS prior to routine clinical examination and having no antibiotics within 28 days were included. Clinician-taken samples were urethral and endocervical swabs for gonorrhoea culture and an endocervical swab for AC2 assay. Gonorrhoea positive AC2 swabs were confirmed with TMA GC assay.
Results
980 women are included in this analysis; we aim to recruit 4000.
Mean age 24 years (range 16-59). 26/980 (2.7%) women were infected with gonorrhoea; 16 were co-infected with chlamydia (62%).
Women with gonorrhoea were significantly younger (mean 20y versus 25y, p=0.003) and were significantly more likely to have cervicitis (p=0.01).
20/26 (77%) were culture positive, 23/26 (88%) were endocervical NAAT positive, 25/25 (100%) were VVS NAAT positive (one VVS was unable to be processed due to patient error in collection), so in clinical practice 25/26 (96%) were positive. Three samples were VVS NAAT positive but endocervical NAAT negative; two of the three were culture negative.
In clinical practice there was no significant difference in gonorrhoea detection between culture (77%), endocervical NAAT (88%) or VVS NAAT (96%). However, there was a significant difference in test sensitivity between VVS NAAT (100%) and clinician-taken urethral and endocervical swabs for culture (77%) (p=0.02).
Conclusions
Data collected thus far shows that in clinical practice gonorrhoea detection by culture, from urethral and endocervical swabs, is equivalent to self-taken VVSs by AC2 assay. If patient errors in collection were reduced VVSs would be more sensitive. Recruitment is on-going and we will present larger numbers.

O2.3. UNAYO I-DROP NA? EXPERIENCES OF A SPECIALIST MENS SEXUAL HEALTH CLINIC IN ALEXANDRA TOWNSHIP, SOUTH AFRICA

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Objectives
To report clinical presentations and laboratory investigations of men attending the mens sexual health clinic in Alexandra over a 2 year period.
Methods
The walk-in mens sexual health clinic is run by a male nurse and counsellor once a week. Symptomatic men are treated both syndromically and on the basis of laboratory results. Men are offered screening for gonorrhoea (GC), trichomoniasis (TV), chlamydial (CT) and Mycoplasma genitalium (MG) infections using a urine-based quadriplex PCR test and serologically for syphilis (RPR). Men with urethral discharge (MUS) have Neisseria gonorrhoeae culture and sensitivity performed.

Results
In 2007-2008, 350 men attended 366 new consultations and 433 follow-up visits. The peak age range was 25-29 years; 19 (5%) of men were under 20 years. The main syndromes seen were genital warts (37%), MUS (17%) and genital ulcer syndrome (11%). Partner notification accounted for 47 (13%) attendances. Most men (83%) had regular girlfriends (19% used condoms) and 23% reported non-regular girlfriends (57% used condoms). HIV status data revealed that 204 of 361 men (67%) had never had an HIV test, whilst 58 (37%) of 157 who knew their HIV results were seropositive. Laboratory testing detected 47 GC cases, 36 CT cases, 16 TV cases and 24 MG cases. The syndromic approach would have missed treating 1 (2%) GC case, 18 (50%) CT cases, 24 (50%) MG cases and 11 (69%) TV cases. Antimicrobial resistance testing revealed 41% of gonococci were resistant to quinolones (first-line therapy at the time). Seven of 327 (2%) men had a positive RPR.
Conclusions
Untreated asymptomatic chlamydial and M. genitalium, untreated T. vaginalis infections, the high level of ciprofloxacin resistance in gonococci, poor clinic attendance by youth, low rates of condom use with partners and poor uptake of HIV testing by men remain challenges for STI management in South Africa.

O2.4. PREVALENCE AND ETIOLOGY OF GENITAL ULCERS AMONG WOMEN INVOLVED IN HIGH RISK SEXUAL BEHAVIOUR IN KAMPALA, UGANDA

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Objectives
To determine the prevalence and etiology of genital ulcer disease (GUD) among women involved in sex work in Kampala. This is the first systematic study on GUD in this population group in Uganda.
Methods
Women were recruited from red-light-areas in Kampala and enrolled into a cohort. Information on STI symptoms and signs was collected. Blood samples were tested for HIV, HSV2 and syphilis serology. Swabs from genital ulcers and/or blisters were processed using Real Time PCR (Roche Light Cycler 480) for individual detection of HSV-1, HSV-2, Treponema pallidum (TP), Haemophilus ducreyi (HD) and lymphogranuloma venereum (LGV). Women presenting with blisters received suppressive treatment with Acyclovir, those presenting with ulcers were treated both for chancroid (ciprofloxacin) and syphilis (benzathin penicillin), following national guidelines.
Results
877 women have been enrolled between March 2008 and April 2009. The HIV-1 seroprevalence was 36.8%, 698 (79.9%) were HSV2 seropositive and 303 (34.5%) were HSV2/HIV co-infected. 21 (2.4%) women had active syphilis (RPR titer ≥1/8). GUD was confirmed in 69 (7.9%) women, of which 36 (52.2%) were HIV-positive.
So far 54 GUD swabs have been processed: HD was isolated from 1 (1.9%) and HSV2 from 16 (29.6%) swabs; the remaining 37 (68.5%) swabs were negative for all five pathogens. Among the 16 women with GUD caused by HSV2, 1 was HSV2 seronegative, probably indicating primary HSV2 infection.
Conclusions
HSV2 was the most frequently identified pathogen in genital ulcers while H. ducreyi and T. pallidum seem to be very uncommon in this population group. Erosions caused by mechanical trauma may have been diagnosed wrongly as ulcerations, which may explain the high proportion of etiology negative GUD. Treatment following currently applied national guidelines results in overtreatment with penicillin and ciprofloxacin. Further monitoring of the etiology of GU is warranted in order to update the national treatment recommendations.

O2.5. NEUROSYPHILIS AND HUMAN IMMUNODEFICIENCY VIRUS INFECTION: A RETROSPECTIVE ASSESSMENT AT TERTIARY HOSPITAL IN SOUTH AFRICA

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Background
Treponema pallidum invades central nervous system in 25 percent of patients with syphilis. South Africa has high rate of HIV prevalence (28%) while syphilis seroprevalence is 2.3 percent. Progression to neurosyphilis occurs if patient is left untreated and progression is rapid in patient with immunosuppression.
Methods
Hospital and laboratory records of patients admitted at Dr George Mukhari Hospital in Pretoria between January 2004 and December 2008 were analysed. The association between CSF- VDRL positive status and HIV serology, CD4+ T cell counts, demographic data and clinical presentations were assessed.
Results
Thirty four out of 1166 (2, 9%) CSF specimens tested for VDRL showed high titre positive results and confirmed as neurosyphilis. Age at disease presentation of neurosyphilis patients ranged from 19 to 75 years and mean age was 35 years. Meningitis, focal neurological deficits, cerebro-vascular accident, transverse myelitis, intra-nuclear ophthalmoplegia, and lymph adenopathy were major presentations. Sixteen patients (16/34) consented for HIV testing and 13 patients (13/16) were confirmed for co-infection. Ninety two percent (12/13) of co-infected patients had CD4+ T cell counts < 350 cells/µl.
Conclusion
This study confirms that HIV co-infection is high in the patients with neurosyphilis. The lower mean age of neurosyphilis patients indicates a considerable rapid rate of disease progression. In addition, lower CD4+ T cell counts in 92% of HIV co-infected patients support the association between immunosuppression and rapid progression of syphilis. We suggest implementing the routine screening test for syphilis in HIV-infected patients in our setting to improve case detection and early treatment intervention thereby reducing the morbidity and mortality associated with syphilis.

O2.6. EARLY SEXUAL EXPERIENCES AND RISK FACTORS FOR BACTERIAL VAGINOSIS IN YOUNG WOMEN

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Background
Cross-sectional and longitudinal study investigating the association between bacterial vaginosis (BV) and sexual practices in sexually-experienced and inexperienced women.
Methods
Participants were 17-21 year old females attending Melbourne University, Australia. Postal study-kits containing an information and consent form, questionnaire, swab and slide were used. Information regarding demographics and a broad-range of sexual practices were collected. Gram-stained self-collected vaginal smears were scored by the Nugent method. Associations between BV and behaviours were examined by univariate and multivariate analysis. The majority of participants were then enrolled in a 12 month cohort study in which behavioural surveys and self-collected vaginal smears were collected every 3 months.
Results
BV was diagnosed in 25/528 women (4.7%;95% confidence intervals[95%CI] 3.1-6.9). Importantly, BV was not detected in women (n=83) without a history of coital or non-coital sexual-contact (0%;95%CI=0-4.3%). BV was detected in 3/78 women (3.8%;95%CI=0.8-10.8) with non-coital sexual experience only, and in 22/367 women (6.0%;95%CI=3.8-8.9) reporting penile-vaginal sex; BV was associated with a history of any genital contact with a sexual partner (p=0.02). BV was strongly associated with >3 penile-vaginal sex partners in the prior year (Adjusted OR=7.1;95%CI=2.718.4) by multivariable analysis. Incidence data and associated risk behaviours derived from the 12 month cohort study will also be presented

Conclusions
The cross sectional study shows a strong association between BV and penile-vaginal sex with multiple partners, but found no BV in sexually-inexperienced women, once a history of non-coital sexual practices was elicited. Our findings indicate BV is not present in truly sexually-inexperienced women.

O3.1. THE INCIDENCE AND RISK FACTORS OF HERPES SIMPLEX VIRUS TYPE 2 AFTER DELIVERY AMONGST ZIMBABWEAN WOMEN

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Background
HSV-2 is the leading cause of genital ulcer disease and reactivates with more frequently when infections are recent. There are scarce data regarding incidence of herpes simplex virus type 2 (HSV-2) amongst women after delivery. This study aims to measure the incidence and risk factors for HSV-2 infection in women followed for 9 months after childbirth.
Methods
Pregnant women were consecutively enrolled between 32 and 36 weeks of gestation and followed at six weeks, four and nine months after delivery. Stored samples were tested for HSV-2 and other sexually transmitted infections at baseline. HSV-2 seronegative samples were re-tested at 9 months after delivery and seroconverters were tested retrospectively to identify seroconversion point.
Results
One hundred and seventy-one (50.6%) of the 338 consecutively enrolled pregnant women were HSV-2 seronegative at baseline. HSV-2 incidence rate (95% Confidence Interval) was 10.0/100 (5.514-5) person years at risk (PYAR) and 19.8/100 (13.9-26.1) PYAR at four months and nine months post delivery respectively. Analysis restricted to women reporting sexual activity had higher incidence rates. The prevalence of HSV-2 amongst the HIV-1 seropositive was 89.3%. Risk factors associated with HSV-2 seropositivity were having other sexual partners in past 12 months (OR 7.6 95% CI 3.3-17.2) and presence of Trichomonas vaginalis (OR 4.5 95% CI 2.0-10.1). Polygamy (RR 4.4, 95% CI 1.8-10.4) and young age at sexual debut (RR 3.6, 95% CI 1.6-8.2) were associated with incident HSV-2.
Conclusions
Incidence of HSV-2 after delivery is high. Screening for HSV-2 amongst pregnant women should be considered and early sexual debut must be discouraged.

O3.2. PREVALENCE OF HIV AND OTHER SEXUALLY TRANSMITTED INFECTIONS IN A COHORT OF WOMEN INVOLVED IN HIGH RISK SEXUAL BEHAVIOUR IN KAMPALA, UGANDA

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Objectives
To determine baseline prevalence of STIs and their relationship with HIV infection in a newly established cohort of women involved in high risk sexual behaviour in Kampala. This is the first systematic study of HIV/STIs in this population in Uganda.
Methods
Women involved in high risk sexual behaviour were recruited from red-light-areas in Kampala. After gynaecological examination, blood and genital samples were taken for laboratory testing of HIV/STIs.
Results
882 women were enrolled between March 2008 and March 2009. The HIV-1 seroprevalence was 36.8% and 79.8% of the study participants tested HSV2- seropositive. 21.2% had a positive TPHA, and 2.3% of the women were diagnosed with active syphilis (TPHA+ RPR titer ≥1/8). Vaginal discharge was confirmed in

47.0%, genital ulcer disease in 7.8% and genital warts in 2.7% of the women. The prevalence of gonorrhoea (NG) and Chlamydia infection (CT) was 13.6% and 8.8% respectively. T.vaginalis (TV) culture was positive in 18.0%; bacterial vaginosis (BV) and candidiasis were diagnosed in 55.8% and 12.0% of women respectively. One in three (34.6%) study participants were dually infected with HIV and HSV2; HSV2-positive participants were nearly 7 times more likely to be HIV-positive than HSV2-negative women (OR 6.76; 95%CI 3.97-11.50; p<0.001). NG, TV and BV were significantly more prevalent in HIV-positive than in HIV-negative women (OR 2.37, 95%CI 1.60-3.51, p<0.001; OR 1.86, 95%CI 1.31-2.63, p<0.001 and OR 1.39, 95%CI 1.20-1.61, p<0.001 respectively). The antimicrobial resistance pattern to NG, tested on 113 isolates, showed high resistance to Ciprofloxacin (80%) which is currently recommended first line treatment for gonorrhoea in Uganda.

Conclusions

High prevalences of STI persist in women involved in high risk sexual behaviour in Kampala and as expected are strongly associated with HIV infection. Preventive interventions including accessible STI care services are needed for this target population group and their partners.

O3.3. QUALITY OF LIFE IS ADVERSELY AFFECTED IN INDIAN PATIENTS WITH VIRAL SEXUALLY TRANSMITTED INFECTIONS- HERPES SIMPLEX VIRUS-2, HUMA PAPILLOMA VIRUS, AND HUMAN IMMUNODEFICIENCY VIRUS

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Objectives

To study Health related Quality of Life (HRQoL) in Indian patients with three viral sexually transmitted infections- Human Immunodeficiency Virus (HIV), Herpes Simplex Virus-2 (HSV-2) and Human Papilloma Vrius (HPV).

Methods

All consenting patients with one or more of the three viral infections attending STD clinic from August 2008 to March 2009 and 34 healthy controls were enrolled for the study. Quality of life was evaluated using the WHOQOL bref instrument (Hindi version). There are 4 domains in WHOQOL bref - physical, psychological, social and environmental in addition to two questions assessing overall QOL and overall health. Questionnaires were self-administered. In addition demographic data was recorded and socio-economic status was assessed. The raw scores of WHOQOL bref were transformed on a 0-100 scale using a table provided by the World Health Organization (WHO).

Results

There were 33 (24.1%), 29 (21.2%), and 24 (17.5%) patients with HIV, HSV-2 and HPV alone, and 17 (12.4%) patients with more than one infections (defined as mixed). The HRQoL scores (in all domains) of patients in different groups were significantly lower than those of controls, however there was no significant difference in any of the domains in different groups of patients. In patients, QOL scores were significantly less in physical and psychological domains than in social relationship and environmental domains, however there was no such difference in controls. Among patients, scores in psychological domain was significantly better in those with >12th standard of education. Scores in Environmental domain were significantly better in upper and upper-middle class than in lower and lower middle class.

Conclusion

In comparison to healthy controls, all viral STIs are associated with significant reduction in HRQOL scores in overall QoL and general health as well as in all four domains, however the worst affected domains were physical and psychological. Comprehensive care including counseling services needs to be implemented in STD clinics across the country.

O3.4. NETWORKS OF INFECTION IN RURAL SOUTH AFRICA: IMPLICATIONS FOR INTERVENTIONS

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Introduction
Sexual networks are highly effective in transmitting HIV. Empirical research into the structure of sexual networks at a social level may provide insights into understanding what drives HIV infections, as well as the reason for the uneven successes of behavioural prevention strategies.
Methods
Long-term ethnographic research in Bushbuckridge, a rural settlement in north-eastern South Africa. Participant observation and unscripted interviews with older and younger residents of a village elicited data on sexual relationships and their structure. Post hoc analysis of field notes describes a sexual network with detailed socio economic information of most members.
Results
A case study of a single sexual network of 64 individuals of which 26 were men, and 38 were women. Ages ranged from 18 to 55, although women were slightly younger than men. Distinguishing features of the network are its inclusiveness, lack of differentiation in its membership, and geographical spread. Younger women partnered with older men. Membership was not restricted in terms of individual occupations and socioeconomic status, or marital status. The network spanned across geographical boundaries, including international borders. Although the partnerships formed were fluid, a few key individuals with multiple linkages within the network ensured its sustainability and robustness over time. Although some of the members of the network died from suspected AIDS, members did not share a strong sense of being part of a broader network of HIV infection.
Discussion
A broadly inclusive, undifferentiated sexual network in several geographical locations that creates potential for HIV infection has significance for understanding the spread of HIV. This directs attention away from individual sexual behaviours toward the social structure of relationships.
Therefore HIV prevention approaches that emphasise abstinence, faithfulness and condom use may be largely irrelevant in this context.

O3.5. SEXUALLY TRANSMITTED INFECTIONS (STIs): ARE NEIGHBORHOOD DRUG MARKETS INDEPENDENTLY ASSOCIATED WITH RATES OF STIs?

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Abstract
Background Neighborhood drug markets may signal the existence of social and sexual networks with high STI prevalence. Our objective was to determine whether neighborhoods with drug markets had higher rates of sexually transmitted infections (STIs) than neighborhoods without drug markets after accounting for the poverty status of the neighborhood.
Methods
We conducted an ecologic analysis at the census block group (cbg) level. Gonorrhea rates from 2002 to 2005 per cbg per 100,000 residents were generated using public health surveillance data. Data about neighborhood drug markets were obtained from a household study of sexually active 15-24 year olds residing in 63 cbgs in Baltimore, MD. As part of the household study (n=575), participants were asked whether they perceived there to be places where people buy or sell drugs in their residential neighborhood. We computed the percentage of participants in each cbg reporting such a place. Data on percent of households below the Federal poverty line was obtained from the U.S. Census 2000.
Results
The mean cbg gonorrhea rate was 710.83 (SD 401.17). The percentage of participants in each neighborhood reporting drug markets was on average 68% (SD 24%). The average percent of households in poverty was 24.33% (SD 14.48). In separate linear regressions, drug markets (coefficient=613.25, 95% CI=314.35, 912.14, p value<0.01) and poverty (coefficient=9.85, 95% CI=3.41,16.29, p value<0.01) were significantly associated with gonorrhea rate. In a final model, neighborhood drug markets (coefficient=482.40, 95% CI=157.32, 807.48, p value<0.01) remained independently associated with gonorrhea rate after adjusting for poverty.

Conclusions
Residents' average perception of intra-neighborhood drug markets were independently associated with rates of STIs after adjusting for neighborhood poverty. This study represents the first step in unraveling the extent to which drug markets may be one modifiable mechanism through which poverty is associated with risks for STIs.

O3.6. SEROEPIDEMIOLOGY OF SYPHILIS IN NORTH-EASTERN MALI: POTENTIAL CO-EXISTENCE OF NON-VENEREAL AND VENEREAL SYPHILIS

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Background and Objectives
Syphilis seropositivity in Gao (Northeastern Mali) is more than twice the average national seroprevalence (9.3% vs. 4.1% in 2007). We investigated the high rates of syphilis seropositivity among women attending public health care (PHC) clinics in Gao, where a non-venereal treponematosis has been known to co-exist with venereal syphilis.
Methods
A cross-sectional seroprevalence survey of women and their children who attend the PHC clinics for antenatal, reproductive health and/or childhood immunization services was undertaken in Gao. Six hundred women and 475 children were consecutively enrolled into the study. Participating women were asked about their sociodemographic and reproductive background and sexual behavioral history. Both women and children were offered onsite syphilis testing using a Treponema-specific Rapid Dlganostic Test (RDT). Venous blood was also collected from women and further tested using RPR and TPPA as well as HSV-2 type-specific antibody.
Results
The syphilis seroprevalence among women (positive RPR and TPPA) was 16,3% while the HSV-2 seropositivity was 17.1%. When compared with TPPA, the sensitivity, specificity, predictive values positive and negative of the TP-specific RDT were 76.8%, 99%, 93.6% and 95.8% respectively. The rate of self-reported stillbirth was 9.6%. No significant associations were found between syphilis seropositivity and self-reported history of stillbirth, fetal loss and neonatal deaths. The syphilis seroprevalence among children, as measured by TP-specific RDT, was 4.4%.
Conclusion
Our preliminary analyses confirmed that syphilis seroprevalence in Northeastern Mali is high, but could not distinguish whether the elevated seroprevalence is due to venereal or nonvenereal syphilis in the community, or both. Among participating women, no significant associations between syphilis seropositivity and self-reported history of abortion, stillbirth or neonatal mortality were observed. Despite the presence of inherent limitations of TP-specific RDT, these tests could be used for the initial screening tests to identify individuals at-risk of venereal and/or non-venereal syphilis.

O4.1. IMPACT OF SEXUALLY TRANSMITTED INFECTIONS AND GENITAL TRACT INFLAMMATION ON RISK OF HIV ACQUISITION IN HIGH RISK HIV UNINFECTED WOMEN IN SOUTH AFRICA

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Background
Sexually transmitted infections (STIs) and bacterial vaginosis (BV), prevalent in South African populations, are associated with increased genital inflammatory responses. Elevated inflammatory cytokines enhance HIV replication, promote recruitment and activation of immune cells in the genital tract which act as targets for infection, and have been implicated in increasing susceptibility to sexual HIV transmission. The aim of this study was to evaluate inflammatory cytokine signatures in the female genital tract associated with STIs in high-risk HIV-negative women and their role in HIV acquisition.
Methods
Cervicovaginal lavages (CVLs) were obtained from 236 HIV-negative women at enrolment into the study. Concentrations of 42 cytokines in CVLs were measured by Luminex. Participants were subsequently followed monthly for 24 months and screened for HIV infection by PCR and presence of antibodies. Women were screened for BV, Chlamydia trachomatis, Neisseria gonorrhoea Trichomonas vaginalis, HSV-2 and Treponema pallidum at enrolment and longitudinally. The relationships between STIs, associated inflammation and time to HIV infection were evaluated by Cox survival analysis.
Results
Women infected with C.trachomatis had significantly elevated levels of IL-1β, IL-2, IL-6, Flt-3L, G-CSF, IL-1α, IL-17, MIP-1β and RANTES in CVL while women infected with N.gonorrhoea had significantly higher genital levels of IL-1β, IL-2, IL-5, IL-12p70, TNF-α, eotaxin, Flt-3L, G-CSF, IL-1α, IL-15, IL-17, MIP-1α, MIP-1β, RANTES and VEGF than women without STIs. In comparison, while women with BV had significantly elevated levels of IL-1β, IL-1α and TNF-β in CVL, they also had significantly lower CVL levels of IL-7, IFN-γ, GM-CSF, GRO, IP-10, MDC and MIP-1α than women without STIs or BV. Elevated levels of IL-6 were associated with greater risk of HIV infection in a Cox survival analysis [HR 1.3 (1.1-1.5)].
Conclusions
STIs are associated with elevated genital tract inflammatory cytokine production. Elevated levels of certain genital inflammatory biomarkers were associated with increased risk of HIV infection.

O4.2. TO BETTER UNDERSTAND THE PATHOLOGY OF EARLY SYPHILIS THROUGH THE QUANTIFICATION OF TREPONEMA PALLIDUM (Tp) IN CLINICAL SAMPLES BY QUANTITATIVE POLYMERASE CHAIN REACTION (qPCR).

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Objectives
To better understand the pathology of early syphilis through the quantification of Treponema pallidum (Tp) in clinical samples by quantitative polymerase chain reaction (qPCR).
Methods
Using primers based on the sequence of the 47kDa membrane lipoprotein gene and Roche Lightcycler technology a real-time qPCR for Tp was developed and specificity determined (data not shown). A standard curve was constructed by serially diluting a known concentration of Nichols strain Tp organisms to determine the limit of detection and for quantification. Patients investigated for Tp were recruited prospectively from a single GU Medicine clinic 2007 2008. Blood was collected into EDTA and ulcer exudates absorbed into Sno-Strip filter paper. DNA was extracted using Qiagen QiAamp DNA kits. Clinical details, follow up serology, dark-field microscopy and HIV status were collated.
Results
Forty-four of 99 patients were diagnosed with early syphilis according to standard criteria. Compared to serology, sensitivity and specificity for detection of primary syphilis in blood were 63% (95%CI 35-85) and 98% (CI 90-100), respectively. Using ulcer exudates, qPCR was 100% (CI 77.2-100) sensitive and 84% (CI 69-92) specific. Similar results were obtained for secondary syphilis.
Median Tp gene copy number in ulcers was higher in primary syphilis (2108 Tp DNA copies per filter strip) than in secondary (422 Tp DNA copies per filter strip). Similar results were obtained from whole blood (1 = 148 copies/mL; 2 = 78). Median ulcer Tp gene copies in primary disease for HIV seropositive and seronegative patients were 2115 and 856 copies per strip, respectively (p=0.086).
Conclusions
The treponemal load is higher in ulcers than in blood. The higher blood treponemal load in primary than in secondary disease has implications for pathogenesis. Based on treponemal load HIV seropositive patients with early syphilis may be more infectious than HIV negative patients.

O4.3. GENOMIC CHARACTERIZATION OF THE SWEDISH NEW VARIANT OF CHLAMYDIA TRACHOMATIS (nvCT)

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Introduction
In 2006, a new variant of Chlamydia trachomatis (nvCT), carrying a 377 base pair deletion within the cryptic plasmid, was reported in Sweden (Ripa & Nilsson. Eurosurveillance. 2006). This deletion included the targets for the diagnostic systems from Roche Diagnostics and Abbott Laboratories. nvCT is clonal (genotype E) and rapidly spread in Sweden, which may also indicate an increased biological fitness.
Aims: to characterise the nvCT and a potential parental wild-type (wt) CT, circulating in Sweden prior to the undetected expansion of nvCT, and compare also to wtCT of other serovars.
Methods
An nvCT isolate and a potential parental strain (genotype E wtCT, selected on the basis of geography, ompA sequencing and VNTR typing) were analysed using whole-genome sequencing, growth curves, antimicrobial susceptibility, immunofluorescence, and electronmicroscopy. Furthermore, all data published regarding nvCT were reviewed.
Results
The nvCT genome did not contain any genetic polymorphisms resulting in an obvious biological advantage (genes for central metabolism and virulence were conserved). Furthermore, in comparison with wtCT infections and strains, no significant differences were or have been identified in regards of symptoms and signs, sequelae, bacterial growth characteristics, cells/DNA load in NAAT samples, antimicrobial susceptibility, immunofluorescence, electronmicroscopy, or by analysis of plasmid copy number.
Whilst the nvCT and genotype E wtCT differed by a single pseudogene other minor differences (SNPs), especially in the plasticity zone, suggest that the selected wtCT is not the nvCT parental strain.
Conclusions
The nvCT does not seem to have increased biological fitness. Therefore the wide and rapid transmission of the nvCT in Sweden was probably due to the strong diagnostic selective advantage and its introduction into a high-frequency transmitting population. The wtCT potential parental strain had many SNP differences but the overall genome was highly conserved. These data support the need for a highly discriminating SNP typing system.

O4.4. ROLE OF TOLL LIKE RECEPTORS ON HUMAN CERVICAL MONOCYTES IN PROVIDING PROTECTIVE IMMUNE RESPONSE TO CHLAMYDIAL INFECTION

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Background
Mucosal host pathogen interactions in humans particularly pathogen recognition, initiation of immune response and host signalling pathways during genital C. trachomatis infection are not well understood. As better understanding of immune correlates is required we investigated in vitro changes in Toll Like Receptor (TLR) expression patterns, cytokine gene regulation and further elucidated the TLR signalling pathways necessary to induce protective immune response to Chlamydia in cervical monocytes.

Methods
Monocytes were isolated from endocervical cells by magnetic sorting and were induced with viable chlamydial EBs. Genes involved in TLR signalling and cytokine expression were analysed by arrays and results validated by Real Time PCR. Post-infection cells were cocultured with autologous CD8+ or CD4+ T cells to study initiation of immune responses. Role of downstream signalling inhibition on chlamydial antigen presentation was also assessed.
Results
Induced monocytes showed significantly enhanced TLR2 and 4 expression and upon co-culture with CD4+ T cells significant ($P<0.001$) proliferation of T cells with cytokine and chemokine expression was observed. Blockage of TLR4, lead to complete inhibition of CD4 cell activation and cytokine secretion, however, TLR 2 blockage leads to partial inhibition. Increase in expression of TLR2 along with FADD and CASP8 was observed during high concentration of chlamydial antigen leading to apoptosis of monocytes. TLR4 on the other hand stimulated cytokine secretion by both MyD88 dependent and independent pathway as observed by MyD88 inhibition.
Conclusion
As no effective vaccine is available for Chlamydia till date, a better understanding of immune modulation by mucosal TLRs will provide new information which can be crucial for development of a vaccine.

O4.5. GENITAL HSV-2 INFECTION IMPRINTS A MARKED ENRICHMENT AND LONG TERM PERSISTENCE OF HIV RECEPTOR POSITIVE CELLS IN THE GENITAL TRACT: IMPLICATIONS FOR MICROBICIDE AND VACCINE STUDIES

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While HSV-2 infection is a substantial risk factor for sexually acquired HIV-1, the mechanism behind this interaction and the inability of acyclovir to interrupt this interaction is unknown. We performed sequential lesion skin site biopsies from HSV-2 infected patients during ulcerative and post-healing stages both on and off acyclovir therapy. Dermal CD4+ and CD8+ T cells, as well as DCs expressing CD123 and DC-SIGN, persisted from HSV lesional tissue at 2 to 37 times > concentrations (median 8 fold) vs. unaffected genital skin for > 20 weeks after complete healing, even with daily acyclovir therapy ($p < .01$ for each cell type). These persistent CD4+ T cells had HSV-2 virus specificity and expressed both CCR5 and CXCR4; the concentration of CCR5+CD4+ T cells was > resident CD4+ T cells in skin of unaffected areas and those circulating in blood ($p < .01$). CD4+ T cells contiguous to DC SIGN expressing DC were also seen at higher concentration in previously HSV infected skin.

Non infectious ulcerations due to coitus allows HIV access to high concentrations of HIV receptor positive cells in HSV-2 infected persons and illustrates the difficulty in preventing HIV-1 in HSV-2-prevalent populations.This work was supported by NIH grants R37AI042528, PO1AI030731 and AI50132.

O4.6. IMPACT OF INFLAMMATION ON RECRUITMENT OF CERVICAL MONONUCLEAR CELLS TO THE FEMALE GENITAL TRACT AND HIV GENITAL SHEDDING IN HIV-1 INFECTED WOMEN

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Genital inflammation and concurrent sexually transmitted infections have been identified as important risk factors for HIV shedding in women infected with HIV. We investigated the impact of HIV status and genital inflammatory cytokine levels on recruitment of mononuclear cells to the cervix and corresponding HIV shedding. Cervical mononuclear cells, isolated using a cervical cytobrush, were obtained from 89 chronically HIV-infected and 46 HIV negative women.We found that HIV-infected women had significantly higher yields of CD3+, CD45+, CD19+, CD14+, Langerin+ and CD24+ cells than uninfected women. While cytobrush-derived T cells from uninfected women were predominantly CD4+ (4.2 CD4:1 CD8), CD8+ T cells were predominant in HIV-infected women (0.6 CD4:1 CD8). The majority of CD4+ and CD8+ T cells from HIV-infected and uninfected women were of the effector memory (CD45RA-CCR7-CD27-) phenotype. HIV-infected women had significantly elevated levels of IL-1β, IL-6 and IL-8 in cervical supernatants compared to uninfected women. We observed a significant positive correlation between CD3+ T cell counts and IL-1β, TNF-α and IL-12. Neutrophil counts correlated significantly with cervical concentrations of IL-1β, TNF-α, IL-8, IL-6 and IL-10. Antigen presenting cell numbers correlated significantly with TNF-α and IL-12. HIV-infected women on anti-retroviral therapy had similar levels of cervical lymphocyte infiltration and inflammation as women nave to therapy. 20/34 HIV+ therapy nave women were shedding HIV in genital secretions compared to 5/40 HIV+ women on therapy. IL-1β and IL-6 concentrations in cervical secretions tended to be elevated (but not significantly) in women shedding HIV compared to those who were not. We observed no correlation between cervical mononuclear cell recruitment and HIV shedding.

In conclusion, we suggest that inflammation at the cervix during HIV infection is likely to be a key determinant in the absolute number of mucosal immune cells recruited. Elevated cellular recruitment to the cervix was not associated with enhanced HIV shedding in women with genital inflammation.

O5.1. EFFICACY OF GARDASIL AGAINST PERSISTENT ANOGENITAL INFECTION WITH HPV 6, 11, 16, AND 18 IN MEN AGED 16-26 YEARS

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Background
In males, anogenital infection with human papillomavirus (HPV) can lead to genital warts, penile, perineal, perianal, and anal neoplasia and cancer. Recent results have demonstrated the efficacy of the quadrivalent HPV (types 6/11/16/18) L1 virus-like particle vaccine (GARDASIL) against HPV6/11/16/18-related external genital lesions in men (90.4% [95% CI: 69.2, 98.1]). In this analysis we evaluated the efficacy of the vaccine against persistent anogenital HPV6/11/16/18-related infection in men.
Methods
4,065 men (heterosexual men [HM] and men who have sex with men [MSM]) aged 16-26 years were randomized in an international double-blind, placebo-controlled efficacy trial. Subjects received GARDASIL or placebo at day 1, months 2 and 6 and had genital exams and HPV sampling from the penis, scrotum, and perineal/perianal area at day 1, month 7 and every 6 months afterwards for up to 36 months. Additionally, intraanal swabs were collected from MSM for HPV detection. Persistent infection was defined as HPV6/11/16/18 DNA detected by PCR assay in 2 consecutive anogenital swabs or biopsy samples collected ≥4 months apart. Efficacy was calculated in a per-protocol population nave to the relevant HPV type from day 1 through month 7. Endpoints were counted after month 7; median follow up was 2.3 years post-dose 3.

Results
Among 1,390 vaccine and 1,400 placebo recipients included in the per-protocol population, the efficacy against persistent infection related to HPV 6/11/16/18 was 85.6% (95% CI: 73.4, 92.9). The incidence rate in the vaccine and placebo groups was 0.6 and 4.1 per 100 person-years at-risk. Most persistent infections were related to HPV types 6 and 16 (placebo incidence rates of 1.4 and 1.6 per 100 person-years at-risk). Efficacy in HM and MSM subjects was 83.7% (95% CI: 71.1, 91.5), and 94.4% (95% CI: 64.4, 99.9), respectively.
Conclusions
The quadrivalent HPV vaccine is highly efficacious in preventing vaccine-type persistent HPV infection in men aged 16-26 years.

O5.2. ASSOCIATION OF ATOPOBIUM VAGINAE, A RECENTLY DESCRIBED HARD TO CULTURE ANAEROBE WITH BACTERIAL VAGINOSIS AND ITS ROLE IN RECURRENCE.

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Background
Bacterial vaginosis (BV) is a polymicrobial syndrome characterized by shift from lactobacilli dominated flora toward overgrowth of gram negative anaerobes.The bacterium Atopobium vaginae has been recognized only recently which is metronidazole resistant organism.The objective of the study to determine the association of Atopobium vaginae with bacterial vaginosis and role it plays in recurrence.
Methods
120 women with abnormal vaginal discharge attending the outpatient department of Gynaecology of Nehru hospital attached to PGIMER, Chandigarh, India were enrolled in the study.Three Vaginal swabs were collected from each patient.1 vaginal swab was assessed by Gram stain to generate Nugent scores.2nd swab was used for culture of Gardnerella vaginalis (on Human blood agar) and Atopobium vaginae (on trypticase soya broth supplement with 5% sheep blood, hemin and Vitamin K) The third swab was subjected to PCR using 16 S r RNA gene sequence to detect Atopobium vaginae.
Results
Of 120 women, Bacterial Vaginosis could be established in 26 patients using Nugent score(7-10).Gardnerella vaginalis was associated with bacterial vaginosis in 96% cases whereas Atopobium vaginae was detected in 90% of patients with BV. However, Atopobium vaginae was more specific for BV as it could be detected in 4% of women with normal vaginal flora as compared to Gardnerella vaginalis which was found in 40%.Recurrence of BV was observed in 23% women with BV and Atopobium vaginae could be detected in 66% of these women though it could not be cultured even on one occasion.
Conclusions
Atopobium vaginae is significantly associated with bacterial vaginosis and also has role in its recurrence besides Gardnerella vaginalis.However infection with Atopobium vaginae is more specific for bacterial vaginosis than Gardnerella vaginalis.

O5.3. INCREASING PREVALENCE AND INCIDENCE OF SYPHILIS AMONG MEN WHO HAVE SEX MEN (MSM) AFTER THE YEAR 2000 IN THE GERMAN HIV-1 SEROCONVERTER COHORT

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Objective
From 2000 to 2007 incidence of newly diagnosed HIV infections in MSM in Germany more than doubled. The increase levelled off in 2008. Simultaneously, from 2001 to 2004 the incidence of Syphilis in MSM more than

tripled, and then levelled off at the national level. We investigated a potential connection between increasing Syphilis and HIV incidence in MSM.

Methods

The HIV-1 Seroconverter Study is a national prospective multi-centre observational cohort study started in 1997. As of December 31, 2007, a total of 1,285 blood samples of treatment-nave HIV-1 seroconverters were available for screening for Syphilis co-infection. Analysis was restricted to male seroconverters with MSM risk (n=1,030) or no reported risk factor (n=25).

Serological testing for Syphilis was performed by an FTA-ABS-IFA-Test, a VDRL-Test, and qualitative and quantitative IgM and IgG detection. Positive serological results were rated by three experts as to the probability that the antibody pattern might represent a recent syphilis infection during the period of HIV seroconversion.

Results

Serological markers for syphilis antibodies (TPPA) were positive in 281 seroconverters (27%), increasing from 10% before 2000 to 35% in 2005. Patterns from 278 seroconverters could be rated as to coincidence with HIV seroconversion. Syphilis-HIV-co-incidence increased tenfold from 1.5% before 2000 to 15% in 2003, declining to 3.2% in 2007.

Conclusions

During a period of increasing incidence of HIV diagnoses in MSM in Germany a concomitant increase of co-incident Syphilis in HIV seroconverters can be demonstrated. This argues for an important role of STI co-epidemics on the spread of HIV in MSM. Concomitant STI, in particular syphilis, may increase HIV transmission probabilities and thus accelerate the spread of HIV in vulnerable populations. Increasing attention should be paid to MSM friendly provision of sexual health care, targeting both HIV positive and HIV negative MSM.

O5.4. THE LAW AND SEXWORKER HEALTH (LASH) PROJECT

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Objective

We investigated the impact of various prostitution laws on the health and welfare of the sex workers in three Australian jurisdictions.

Methods

We mapped the brothel-based sex industries in Perth (where all forms of sex work is illegal), Melbourne (decriminalized but regulated through licensing), and Sydney (decriminalized and unlicensed). Representative samples of sex workers in brothels completed a questionnaire (available in 5 languages) and provided a vaginal tampon for testing for chlamydia, gonorrhoea, Mycoplasma genitalium, and trichomoniasis by PCR.

Results

All three cities had sex industries of relatively similar size, though the unlicensed sector in Melbourne proved difficult to access. Participations rates were high (>80%) when access was gained to brothels: 175 women in Perth, 229 in Melbourne, and 201 in Sydney. The Melbourne women were a median of 4 years older ($p<0.001$) and had been working twice as long (4 years) as the Sydney women (2 years, $p<0.001$). Only 27% of the Sydney women had been born in Australia, compared with 51% in Perth and 67% in Melbourne ($p<0.001$). Overall, the police had limited presence in the brothels. There were no differences in psychological distress scores (K-6) between the cities. Condom use at work was similarly high (>95%) and STI prevalences uniformly low. Though the Melbourne women are forced to have monthly STI screening, this conferred no significant advantage for the women in licensed premises and little is known about the unlicensed sector.

Discussion

While the legal climate appears to affect the demographic profile of the sex industries, we could find no effect on the health or welfare of the women.

O5.5. ANALYSIS OF CHLAMYDIA TRACHOMATIS TESTING IN THE EAST OF ENGLAND WITH A GOAL TO IMPROVE COVERAGE

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Genital chlamydial infection is the most commonly diagnosed sexually transmitted infection in England. The majority of infections are in young people and are asymptomatic. A national screening programme (NCSP) was implemented in phases from 2003. The 2007/2008 government target of 15% increased to 17% in 2008/2009. Community testing occurring outside of NCSP was included in the 2008/2009 target which covered both sexes, aged 15 to 24 years, and excluded tests undertaken in specialist genitourinary medicine clinics.
The East of England region (EoE) covers a population of ~680,000 young people. The Health Protection Agency in EoE was commissioned during 2008/2009 to collect information on community testing outside NCSP and report nationally for inclusion in the target. Comprehensive datasets from 20 data-providers were collected. Eighteen provided disaggregate data which could be used for further analysis. The EoE was the first region in England to develop this centralised approach to data collection and to provide local health providers with information that would inform improvements in access to services and consequently increase coverage.
Data was checked, validated, and imported into a bespoke SQL database which: deduplicated, removed invalid records and assigned geographical areas. This dataset was combined with NCSP data for the same time period to provide an overall picture of community testing in the region.
With the use of mapping software, detailed maps showing chlamydia testing coverage and testing venues have been produced. Test services have been mapped by type; e.g. general practice and testing volume, with target population density or testing coverage underlain, to allow for easy visualisation of differences in service provision.
This methodology for data collection, analysis and presentation is a clear step forward in monitoring chlamydia testing. It can be used to guide improvements in service provision and coverage and is transferable to a variety of infections and settings.

O5.6. SEXUALLY TRANSMITTED INFECTIONS AMONG CANADIAN YOUTH – CONTINUING CHALLENGE: NEWLY CREATED NATIONAL SEXUAL ASSESSMENT TOOL – PROMISING SOLUTION

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Introduction and Objectives
Canada collects national data on rates of positive tests of three reportable sexually transmitted infections (STI); Chlamydia, gonorrhoea, and infectious syphilis. The national data is not comprehensive; thus, STIs rates continue to present a challenge. In 2006, the Canadian Joint Consortium for School Health's Working Group on Sexual Health established as a main priority the need to identify and document a comprehensive assessment tool to measure the sexual health of Canadians. The Public Health Agency of Canada is continuing to fund a team of Canadian sexual health researchers to develop and pilot-test a tool based on a comprehensive set of indicators of sexual health initially, for youth aged 16 to 24 and for other age groups in the future.
Methods
Initially, a comprehensive review of the academic literature was conducted and nine indicators of sexual health were identified. An adaptation of Bronfenbrenner's ecological model and the World Health Organization's definition of sexual health were selected to finalize the indicators. These indicators were presented to key informants from across Canada during focus group interviews, the data were analyzed, and

used to revise the guiding frameworks and the indicators as well as identify and develop the questions for the assessment tool.
The tool was forwarded for review to a survey methodologist, electronic survey design expert, and seven sexual health key informants. These data were used to develop the final draft of the pilot-tool.
Results
The final pilot-tool is comprehensive. It measures socio-demographic characteristics, sexuality, sexual identity, sexual satisfaction, sexual functioning, relationship function, relationship satisfaction, protective behaviours, sexual experiences, sexual victimization, attitudes, peer and family influences, community and media influences, as well as access to sexual health education and sexual health services. The results of the pilot-testing will be provided.
Conclusions and Implications
This is the first attempt in Canada to develop an evidence base, using a tool that includes multi-facets and multi-dimensions of sexual health, to inform decisions related to furthering effective policies and sexual health promotion programs. In addition, collaboration with other countries will be sought to scrutinize the tool for appropriate use outside of Canada.
Funding: Public Health Agency of Canada, Ottawa, Canada; Population Health Fund

O6.1. HPV GENOTYPES ASSOCIATED WITH INVASIVE CERVICAL CANCER IN UGANDA

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Background
Cervical cancer is the most common cancer among women in Uganda today. Cervical cancer is caused by various high risk strains of human papilloma virus (HPV), 16 and 18 being the predominant strains world-wide. A vaccine against these will be introduced in Uganda soon. However, available data from Uganda on the predominant pattern of HPV types associated with cervical cancer are limited.
Objectives
To describe the prevalence of HPV genotypes in HIV-infected and uninfected women diagnosed with cervical cancer in the Lake Victoria Basin of Uganda.
Methods
Consenting women with suspected cervical cancer, seeking care from 7 hospitals in central Uganda, provided biopsies and a blood specimen for HIV testing. Cancer diagnosis was made by a consultant pathologist. HPV DNA screening and genotyping using Roche Linear Array HPV testing.
Results
602 biopsies were collected, and 486 cervical cancers diagnosed. Women with cancer had a mean age of 48 years (range 20 82). HIV prevalence was 22.5%. A positive HPV HR test was obtained from 383 biopsies. Prevalence of various strains was HPV16(51.2%), HPV18(24%), HPV45(13.3%), HPV35(4.7%), HPV52(4.4%), HPV33(3.7%), HPV31 (2.6%) and others (9.8%). 44 tissues(11.5%) showed infection with multiple strains, most commonly with HPV 16, 18 and 45. HPV 16 and 18 were found in 67.5% of HIV-positive and 72.6% of HIV-negative women (P= 0.37). Multiple infections were more common among HIV infected individuals (26.5% vs. 6.7%, P<0.001).
Conclusion
A proportion of cervical cancers in Uganda may not be reliably prevented by a vaccine directed against HPV 16 and 18. HIV prevalence among women with cancer was higher compared to that in sexually active women from the general population. A screening programme for early detection of cervical cancer is urgently required, in addition to a vaccination programme. There is also need to incorporate cervical cancer screening in HIV care programmes.

O6.2. THE TALE OF TWO SYPHILIS SEROLOGIC TESTS - TREPONEMAL AND NONTREPONEMAL: DOES THE ORDER MATTER?

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Background
Conventional approach for syphilis screening comprises an initial nontreponemal test followed by a confirmatory treponemal test. However, the recent development of automated treponemal tests has led some large laboratories to reverse the order.
Methods
We examined the health and economic outcomes of the two-step algorithms: treponemal followed by nontreponemal (Trep-First) and nontreponemal followed by treponemal (Nontrep-First). We included one-step algorithms for comparison: treponemal only (Trep-Only) and nontreponemal only (Nontrep-Only). We used a decision analysis method for a cohort of 10,000 persons. We used 80% return rate and assumed 0.5% prevalence and 5% previous infections. We repeated our analyses for developing country settings using 10% prevalence, 15% previous infections and 67% return rate assuming that the relative costs were the same. In each case we determined the number of tests performed, follow-ups (contacting individuals for further assessment) required and overtreatment rates.
Results
In both settings, we found that the number of follow-ups required were the same for the two-step algorithms and lower when compared to the one-step algorithms (at least two times lower). Overtreatment rates for the one-step algorithms were substantially higher (at least ten-fold) when compared to the two-step algorithms, although they prevented higher number of cases. The number of confirmatory tests required was two times higher for Trep-First compared to the Nontrep-First algorithm, although they both had the same effect (cases identified). Using the same cost for treponemal and nontreponemal tests, the cost-effectiveness ratio (cost per case prevented) for the Nontrep-First was lower than the Trep-First ($1,398 vs. $1,473) and more cost-saving ($213,000 vs. $204,000) for the developing country setting. However, the Nontrep-Only algorithm saved the most ($357,000) for the developing country setting.
Conclusion
The order of testing mattered because the number of confirmatory tests performed was substantially higher for the Trep-First algorithm although they had the same effect.

O6.3. MONITORING OF M.GENITALIUM BACTERIAL LOAD DURING ERADICATION AND ANTIBIOTIC RESISTANCE FORMATION OF IN PATIENTS WITH NGU TREATED WITH JOSAMYCIN

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Macrolides (MCL) are now recommended as the first line of antibiotic for M.genitalium infection treatment, but optimal treatment protocol is still a subject of many issues. Point mutations in 23S rRNA are responsible for acquired resistance of MG to MCL, but conditions for their formation are still unclear. The goal of the study to evaluate changes in bacterial load (BL) and point mutation formation during therapy by josamycine (Jos) in patients with MG-NGU.
Material and methods
Forty nine patients with M.genitalium urethritis were treated with Jos 500 mg t.i.d. during 10 days. Urethral swabs from each patient were taken into 1ml PBS and frozen. Quantitative real-time PCR were used for monitoring of M.genitalium bacterial load at the day before treatment (d/bt), 3-d and 8-th days during treatment (d/t) and 2-nd day after treatment (d/at). For detection of point mutation in 23S rRNA we used primers suggested Jensen JS (CID, 2008).
Results
From 49 patients with MG-NGU 46 were enrolled into monitoring of BL during treatment. Patients were ranged into 3 groups according their initial MG BL: group-I (11 patients) ≤ 4log geq/ml, group-II (29 patients) -

4-6log geq/ml, group-III (6 patients) - ≥6log geq/ml. All patients from group-I and 25 patients from group-II eliminated MG before 2d/at. The rest 4 patients eliminated MG during further two weeks. From group-III 3 patients eliminated MG before 2d/at, but 3 had relapse of infection. All these 3 patients had the highest level of BL among others. No mutations in 23S rRNA MG were observed due at 3 and 8 d/t, but to therapy, but in 2d/at in 23S rRNA MG isolated from one patient the mutation A2062G was detected and the other two resistant isolates possessed the mutation A2059G. Overall in 49 patients with MG-NGU treated with Jos complete eradication was achieved in 46 (94%) of patients.

Conclusion

Our data demonstrate that initial bacterial load of MG in NGU may play a significant role in formation resistance to MCL in particular to Jos. Resistance to josamicine was connected with two types of point mutation in 23S rRNA, one of them (A2062G) has not been yet described for M.genitalium.

O6.4. PLASMID-MEDIATED ANTIBIOTIC RESISTANCE AMONG GONOCOCCI IN SOUTH AFRICA

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Objectives

To develop a duplex polymerase chain reaction (PCR) assay for the detection and typing of both β-lactamase and TetM encoding plasmids of penicillinase-producing gonococci (PPNG) and high-level tetracycline-resistant gonococci (TRNG) respectively. To determine the prevalence of penicillin and tetracycline resistance among recently isolated gonococci in South Africa.

Methods

A duplex PCR assay was developed, using five primers, which allowed simultaneous detection of β-lactamase and TetM 25.2 MDa encoding plasmids. The assay detected the Asian 4.4 MDa (4.9 kb), African 3.2 MDa (3.1 kb) and Toronto 3.05 MDa (2.6 kb) plasmids. The assay also differentiated the 25.2 MDa TetM encoding plasmids into American and Dutch types based on amplicon size. Gonococci collected in South African surveys (2007-2008) were sub-cultured, tested for β-lactamase production with nitrocefin and had minimum inhibitory concentrations determined using E tests (AB Biodisk, Sweden). GISP N. gonorrhoeae strains (CDC, USA) were used as controls. Extracted DNA was used as the template in the PCR assays. Amplified DNA was detected using a Bio-Analyzer (Chemetrix, USA).

Results

Among 210 clinical isolates tested, 54 (26%) expressed β-lactamase. Most PPNG possessed the Toronto (22, 41%) and African (19, 35%) plasmids. Thirteen PPNG (24%) contained a novel 2.3 kb plasmid; there were no Asian plasmids. Decreased penicillin susceptibility (non-PPNG with MIC > 0.06 mg/l) was observed among a further 111 (53%) isolates. There were 154 (73%) TRNG among the 210 isolates, with 117 (76%) isolates have having the American plasmid and 37 (24%) had the Dutch plasmid type. β-lactamase was produced by 44 (29%) TRNG.

Conclusion

The duplex assay was able to detect and type β-lactamase and TetM encoding plasmids. High levels of resistance to penicillin and tetracycline currently exist in South Africa which suggests that these antibiotics will have little role in multi-drug therapy from gonorrhoea in the future.

O6.5. CEFIXIME AND AZITHROMYCIN TREATMENT IS EFFECTIVE AGAINST PHARYNGEAL GONORRHOEA INFECTION

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Objectives

BASHH guidelines recommend the use of ceftriaxone for the treatment of pharyngeal gonorrhoea (PG). Patients with PG often have an initial diagnosis of gonorrhoea at a non - pharyngeal site, for which cefixime and azithromycin is generally used as first - line treatment. We aimed to look at the efficacy of different antibiotic regimens prescribed in our clinic for the treatment of PG.

Methods

Patients diagnosed with PG between 2004 and 2008 were identified from the microbiology database. Case notes review was performed collecting data including treatment regime and test of cures (TOC). Statistical analysis of TOC results for any cefixime or ceftriaxone-containing regimen was performed using SPSS.

Results

269 episodes of PG were identified and 261 case notes were available. Cefixime was used in 133 cases. Cefixime was given with azithromycin, doxycycline, another agent or alone in 79/133, 27/133, 3/133 and 24/133 cases respectively. 82 cefixime-treated patients had a documented TOC with 5 treatment failures amongst them. Cefixime resistance was not observed in any treatment failure and 2 were noted to be the result of failed treatment concordance. Cure rates were 44/44 (100%), 14/18 (78%) and 17/18 (94.4%) for cefixime with azithromycin, doxycycline and alone respectively. Linear regression analysis is as follows: Cefixime and azithromycin p=0.06, (95% CI -0.004 to 0.153); cefixime alone p=0.921 (-0.116 to 0.105). Although not significant, there is clearly a trend demonstrated with cefixime plus azithromycin treatment.

Conclusions

National treatment guidelines do not include cefixime for PG. 100% of patients with PG treated in our clinic with cefixime and azithromycin cleared their infection. We have demonstrated strong clinical evidence that this treatment regime is efficacious. We believe cefixime together with azithromycin is a useful oral treatment for PG and should be considered for future guidelines.

O6.6. MYCOPLASMA GENITALIUM: OUT-COME OF TREATMENTAND CONNNSEQUENCES IN RESISTANCE DEVELOPMENT

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Knowledge of effective treatment of Mycoplasma genitalium(Mg) is urgent in order to prevent spread of infection, complications and resistance. From 1998-2005 patients infected with Mg in the STD-clinc Falun, Sweden routinely were offerred a cheque up one month after treatment. Controlled after primary treatment with doxycycline (200 mg first day and 100 mg following 8 days) were 89/102 (87%) women and 98/114 (86%) men, 46/89 (52%) of the women tested negative for Mg and 40/98 (41%) of the men. Corresponding figures for azithromycin given as a single dosage of 1 g were test of cure in 56/62 (90%) females and 69/72 (96%) males. Negative test had 96% of the females and 90% of the males. When azithromycin was given in extended 5 days course (500 mg first day and 250 mg following 4 days) as primary treatment 14/16 (87%) of females and 16/19 (84%) returned for test of cure. Negative were 14/14 (100%) females and 14/16 (93%) of the males. This treatment given after tetracycline failure gave negative test in 59/61 (97%). Among those testing positive after treatment with azithromycin 1g as a single dosage 10 were analysed with PCR-test for resistance mutation before and after treatment. Negative before and positive after treatment were 6, unknown result before and positive after had 2 and 2 were positive in both tests. Development of resistance during treatment occurred in 6/10 (60%) and possibly in another 20%. Moxifloxacin was given to the 6. Test of cure had 5, all negative. In 103/144 so far analysed untreated Mg-positive samples 2006-2008 no resistance was found.

Conclusion

As risk for ressistance is high when the 1g dosage fails it should be avoided as primary treatment of Chlamydia and NSU.

O7.1. SCREENING FOR INTIMATE PARTNER VIOLENCE IN A SEXUAL HEALTH CLINIC WHO DOES IT AFFECT AND HOW COMMON IS IT?

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Few studies have explored the association between current sexually transmitted infections (STIs) and intimate partner violence(IPV) Since 2003 Sydney Sexual Health Centre has used a proforma tool to screen

all new female clients for recent IPV . This study retrospectively determined the prevalence of reported recent physical IPV and its associations.
The clinic database was used to identify all first visits by women, and those reporting recent physical IPV. A case control study of women reporting, and the next two age matched women not reporting, recent physical IPV between September 2003 and September 2007 was conducted. Microbiologically confirmed current (STIs) and socio-demographic, behavioural and diagnostic variables were extracted from the clinic database and analysed for association with recent physical IPV using binary logistic regression
There were 6013 initial attendances by women to the clinic, of whom 313 (5.2%) reported recent physical IPV. There was no association with current acute STIs, but cases were more likely to report current sex work (AOR 1.82, 95% CI 1.28-2.61), past STI diagnosis (AOR 1.62, 95% CI 1.06-2.46), recent injecting drug use (AOR 9.00, 95% CI 2.98-27.3), a previous sexual assault (AOR 2.74, 95% CI 1.42-5.29), a prior termination of pregnancy (AOR 1.57, 95% CI 1.13-2.20), and were less likely to be in a current relationship (AOR 0.69, 95% CI 0.50-0.94) and consistently use condoms in the previous 3 months (AOR 0.67, 95% CI 0.48-0.94).
Women attending our clinic were almost twice as likely to report physical IPV as were women in a recent Australian population based study. This, together with the association of IPV with sex work, prior STIs and lower condom use, suggest sexual health clinics would be appropriate venues to screen women for intimate partner violence.

O7.2. MULTILEVEL ECOLOGICAL FACTORS ASSOCIATED WITH PREMARITAL SEXUAL INTERCOURSE AMONG ADOLESCENTS

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Objective
To assess the influence of personal, peer, parental, school, media and pornography characteristics on premarital sexual intercourse among adolescents.
Methods
We conducted a case control study, with sensitive data collected using a self-administered questionnaire. Cases are sexually active adolescents, controls are nonsexually active adolescents. From 2006 to 2008, we recruited 500 never married adolescents who reported having engaged in voluntary sexual intercourse for most recent sex, and were new patients attending the only public Sexually Transmitted Infection (STIs) clinic in Singapore for screening or treatment of STIs. Five hundred controls matched by age, gender and ethnicity were recruited from a comparable public primary health care clinic.
Results
Independent significant factors for premarital sexual intercourse among males were pornography viewing (adjusted odds ratio 5.82, 95% confidence intervals 2.34 to 14.43), non-confidence to resist peer pressure (3.84, 2.27 to 6.50), perception that more than half of their friends had engaged in sex (3.37, 1.92 to 5.92), permissiveness toward premarital sex (3.41, 2.10 to 5.55), involvement in gang activities (3.45,1.66 to 7.15), drinking (1.77, 1.07 to 2.94), smoking(1.91, 1.14 to 3.20), and living in low cost housing (3.25, 1.64 to 6.43). For females, additional factors were prior sexual abuse (7.81, 2.50 to 24.41) and dropping out of school (2.72, 1.32 to 5.61); and stronger associations were found for non-confidence to resist peer pressure (5.56, 2.94 to 10.53) and permissiveness on premarital sex (6.25, 3.30 to 11.83). Exposure to persons with HIV/AIDS and STIs in the media was negatively associated with sex for males (0.27, 0.16-0.45) and females (0.24, 0.13 to 0.47).
Conclusion
Sex education programmes for adolescents must address social, peer, media and pornographic influences, and incorporate skills to negotiate sexual abstinence. Adolescent school dropouts and those with a history of sexual abuse, smoking, drinking and gang activities should receive early intervention.

O7.3. A SYSTEMATIC REVIEW OF QUESTIONNAIRE DELIVERY MODE COMPARISONS FOCUSSED ON SEXUAL BEHAVIOURS FROM DEVELOPING COUNTRY SETTINGS.

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Background

Measuring sexual behaviour is heavily reliant on self-reports which are prone to social desirability bias. This bias has important implications for interpreting these data. Comparative studies of questionnaire delivery modes have been shown to have an impact on reporting in North America and Western Europe where there is convincing evidence that computer technology can improve reporting. This review assesses the evidence from studies in developing countries on the effect of all questionnaire delivery modes on the validity of reporting of sexual behaviours.

Methods

Three electronic databases (Medline, EMbase, and PsychINFO) were searched. Abstracts from ISSTDR conference proceedings were examined from 2001 onwards. Randomized-controlled trials and quasi-experimental studies were included if they compared two or more questionnaire delivery modes, were conducted in a developing country, reported on sexual behaviours, and occurred after 1980.

Results

Of the 6822 references, 28 articles reporting on 26 studies met the inclusion criteria. Eighteen studies compared audio-computer assisted survey instruments (ACASI) or its derivatives (PDA or CAPI) against another questionnaire delivery method (self-administered questionnaires, face-to-face interviews, random response technique). Despite wide-variation in geography and populations sampled, there was strong evidence that computer-assisted interviews decreased item-response rates and increased rates of reporting of sensitive behaviours. In the three studies where there were no differences in reporting, ACASI improved data entry quality. A wide range of sexual behaviours were reported including vaginal, oral, anal and/or forced sex, age of sexual debut, condom use at first and/or last sex. Validation of self-reports using biomarkers was rare. Where present, findings suggest more accurate reporting using ACASI.

Conclusion

These data reaffirm that questionnaire delivery modes do affect self-reported sexual behaviours and that use of ACASI can significantly reduce reporting bias. Its acceptability and feasibility in developing country settings should encourage researchers to consider its use when conducting sexual health research.

O7.4. USE OF BIOLOGICAL MARKERS TO COMPARE THE VALIDITY OF TWO QUESTIONNAIRE DELIVERY MODES AROUND REPORTING OF SEXUAL BEHAVIOURS IN RURAL ZIMBABWEAN YOUTH

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Background

Validity of self-reported sexual behaviours is fraught with bias, particularly among young people. This bias may operate differently for males and females (males over-report/females underreport). A RCT comparing four questionnaire delivery modes found increased reporting of sensitive behaviours using a self-administered questionnaire with an audio soundtrack (Audio-SAQ) and audio-computer-assisted survey-instrument (ACASI), but because of sample size considerations we were unable to compare results by gender or against biomarkers. In 2007, we conducted a larger survey allowing us to make these comparisons.

Methods

A representative sample of youth aged 18-22 years recruited from rural Zimbabwe were asked to complete a questionnaire on Audio-SAQ, followed by a shorter questionnaire using ACASI. Five sexual behaviour questions were included on both versions. Blood was tested for HIV and HSV-2. Rates of reporting of sexual behaviours were compared between modes.

Results

4672 (96.7%) of eligible participants were recruited; 96.7% completed both questionnaires. Both male and female respondents were more likely to report sensitive behaviours when using ACASI; 36.1% (95%CI:34.0-38.2) of males reported ever having had sex on Audio-SAQ c.v. 42.0%; (95%CI:39.8-44.1) on ACASI (females Audio-SAQ 46.6% (95%CI:44.6-48.5) ACASI 53.0% (95%CI:51.0-55.0)). Males and females reported earlier sexual debut (<17 years males: Audio-SAQ 28.0% (95%CI:24.8-31.4) ACASI 46.2% (95%CI:42.8-49.6); females: Audio-SAQ: 27.5% (95%CI:25.0-30.1) ACASI 44.6% (95%CI:41.9-47.3)). Reported condom use and partner numbers did not differ significantly by mode. The proportion of females with biological evidence of sexual activity who reported never having sex was greater in Audio-SAQ than ACASI (Audio-SAQ 20.8% (95%CI:17.2-24.4) vs. ACASI 13.8% (95%CI:11.0-17.1)). Few males had positive biomarkers.

Conclusion

This is one of few studies to compare direction of effect of reporting bias by gender. This was similar for males and females making it likely that in this setting both young males and females under-report their sexual experience. ACASI appears to significantly reduce bias.

O7.5. BEHAVIORAL INTERVENTION REDUCES STI RATES FOR FIVE YEARS: RESULTS OF A RANDOMIZED TRIAL

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Objectives
To evaluate long-term efficacy of our standard (SAFE; Shain et al, NEJM 340:93, 1999) and enhanced (includes option of support groups) culture- and female-specific, cognitive behavioral intervention. We have already demonstrated that both interventions were effective for the first two follow-up years (SAFE 2, Shain et al, STDs 31:401, 2004). Outcomes are any and multiple infective episodes with GC and/or CT.
Methods
Mexican- and African-American adolescents and women with a current non-viral STD were interviewed, counseled, examined, treated, and randomized to standard intervention, enhanced intervention, or controls. Participants were interviewed, examined, and screened for gonorrhea and chlamydia at 6, 12, 24, 36, 48, 54, and 60 months (brief interview and optional exam at 18, 30, and 42 months) in San Antonio, Texas. Women were encouraged to return to the clinic for suspected problems; they were screened for GC and CT, as needed. Results are based on repeated measures logistic regression controlling for age, education, drug use, length of follow-up, and number of excess lab tests and 5-year survival analysis with incident infection as the time-dependent outcome.
Results
775 women (80% under age 25) were enrolled. Final sample sizes at Yrs. 0-1, 0-2 0-3, 0-4, and 0-5 were 709, 690, 623, 595, and 579, respectively. Adjusted cumulative rates of infection rates and repeat infective episodes are presented below.

	Any Infection			Multiples, Years 0-5			
	Yr. 0-1	Yrs. 0-2	Yrs. 0-3	Yrs. 0-4	Yrs.0-5	2+	3+
Controls	26.8%	39.8%	52.2%	58.5%	61.8%	36.3%	20.8%
Enhanced	15.4%*	23.7%*	36.9%*	42.3%*	48.6%*	21.5%*	8.3%**
Standard	15.7%*	26.2%*	41.0%$	46.8%**	48.1%*	23.7%**	7.7%*

*P=<0.01, $P=0.053, **P<.05
Conclusions
Cumulative infection rates (years 0-1 through 0-5) and rates of multiple infective episodes remained significantly reduced for both study groups throughout follow-up (risk-reductions of 22% at 5 years).

O7.6. ALCOHOL USE AND STI RISK BEHAVIOURS: EVIDENCE FROM BRITAINS NATIONAL PROBABILITY SEX SURVEY: THE SECOND NATIONAL SURVEY OF SEXUAL ATTITUDES AND LIFESTYLES (NATSAL-2).

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Introduction
It is perceived that some, especially young people, use alcohol because they believe it increases their chances of having sex and/or it enhances sexual arousal. Although it seems self-evident that drinking can lead to adverse sexual experiences (e.g. regretting, and unsafe, sex), we examine the evidence for this using data from a national probability survey.
Methods
12,110 computer-assister personal-interviews for Britains most recent National Survey of Sexual Attitudes and Lifestyles undertaken in 2000/01 among residents 16-44yrs. Heavy drinkers were those who reported usual alcohol consumption above recommended limits: >14 units/week for women; >21 units/week for men.
Results
6.3% vs. 4.7% of men and women reported being a bit drunk at the time as a main reason for 1st sex, and women who reported this were more likely to report sex before 16yrs (odds ratio, OR: 1.43), while men and women who were drunk at 1st sex were more likely to perceive that sex had occurred too soon: ORs: 1.80, 3.32, respectively. The proportion considered heavy drinkers increased with partner numbers: ORs for

respondents with 5+ vs. 0 partners (past year): 4.59 (men) and 10.7 (women). Heavy drinkers were also more likely to report unprotected sex with 2+ partners (past year): OR adjusted for partner numbers: 1.80 (no significant gender difference). No associations were observed with (in the past year) STD clinic attendance or diagnosis, but male heavy drinkers were more likely to report sexual function problems, OR: 1.46 and specifically erection problems, OR: 1.48.

Conclusions

STI risk behaviours and some adverse sexual health outcomes were more commonly reported by heavy drinkers or those drunk at 1st sex. While causality cannot be assumed from cross-sectional survey data, especially where alcohol consumption is not directly linked to sexual activity, campaigns to promote safe sex should address contextual activities such as drinking.

O8.1. THE ROLE OF APPOINTMENT SYSTEM IN ENHANCING PERFORMANCE MANAGEMENT WHEN OFFERING HIV/AIDS SERVICES-TASO MASAKA EXPERIENCE

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Background

TASO Masaka is one of the 11 service centers located in Western part of Uganda. The study aim of the study was to determine the perception and attitudes of clients towards the appointment system, assess the perception of clients attending clinic towards the quality of services rendered before and after the appointment system and to also assess whether clients get medical assistance in between appointments.

Methodology

A cross sectional study to highlight the effectiveness of TASO appointment system in aiding the provision of quality services as assessed by clients attending Masaka clinic. Systematic random selection of 41 clients was done taking a sampling interval of 5 for both appointed and non-appointed clients selected. Respondents were selected from general/ART clinics. A likert scale analysis with 5-Strongly Agree, 4-Agree, 3-Not sure, 2-Strongly Disagree, 1-Disagree level was used.

Results

Before the introduction of the appointment system in 2004, the average number of clients served per clinic day was 300; retrospective review of the system in shows that the average number of clients served per clinic day is 200. Study results showed that gender distribution of female respondents was 29 (71%) as compared to 12(29%) males. Moderate percentage 41% of the respondents reported a good attitude towards the appointment system; average response was 4.1; and Median response of 4.0. Results revealed no statistical difference in the positive attitude of client who registered before and after its implementation of the system in 2006(P-value =0.425; 95% Level of significance). Out of 28(68.3%) respondents who had illness in between TASO appointments, 13(46.4%) who went for assistance to other service providers, were not happy with the services received in the facilities.

Conclusions

Clients have a good perception and attitude towards the appointment system

Recommendation: Appointment system could be taken up by HIV/AIDS Service organizations to help in addressing workload challenges when offering to PLHIV.

O8.2. THE IMPACT OF SYNDROMIC MANAGEMENT ON THE PREVALENCE OF SEXUALLY TRANSMITTED INFECTIONS IN SOUTH AFRICA

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Background

Few studies have attempted to assess the impact of syndromic management on the prevalence of sexually transmitted infections (STIs) at a population level. This study aims to determine the impact of syndromic management protocols that have been introduced in South Africa since 1994.

Methods

A mathematical model of sexual behaviour patterns in South Africa was developed, based on local demographic and sexual behaviour data. This was used to model the incidence of HIV, genital herpes, syphilis, chancroid, gonorrhoea, chlamydial infection, trichomoniasis, bacterial vaginosis and vaginal candidiasis. Assumptions about health seeking behaviour and treatment effectiveness were based on South African survey data. The model was fitted to available HIV and STI prevalence data using Bayesian

techniques, and the modelled trends in STI prevalence were compared with those that would have been expected in the absence of syndromic management protocols.

Results

Between 1995 and 2005, there were significant reductions in the prevalence of syphilis, chancroid, gonorrhoea, trichomoniasis and chlamydial infection. In women aged between 15 and 49, syndromic management resulted in a 45% (95% CI: 34-58%) decline in syphilis prevalence, a 10% (95% CI: 5-19%) reduction in gonorrhoea prevalence, and an almost complete elimination of chancroid. However, syndromic management did not significantly reduce the prevalence of other STIs, and much of the observed reduction in STI prevalence between 1995 and 2005 is attributable to either increased condom usage or the effect of AIDS mortality.

Conclusions

Syndromic management of STIs can be expected to decrease the population prevalence of STIs that are frequently symptomatic (syphilis, chancroid and gonorrhoea) but has little effect on the prevalence of STIs that are mostly asymptomatic.

O8.3. GP INCENTIVE PAYMENTS FOR THE OPPORTUNISTIC SCREENING OF YOUNG WOMEN FOR CHLAMYDIA IN GENERAL PRACTICE: A RANDOMISED CONTROLLED TRIAL

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The objective of this study was to determine if offering a $5 testing payment to general practitioners (GP) would increase chlamydia screening of young women, aged 16 to 24 years, in general practice. Barriers and enablers to opportunistic chlamydia screening in general practice were identified.

Twelve practices across Victoria, Australia, were cluster randomised to receive either a $5 payment per test (intervention) or no payment (control) when testing women aged 16 to 24 years for chlamydia. The trial was conducted for a 6 month period from June to December 2008.

Practices were involved in pre-trial audits to identify potential barriers and facilitators to screening and chlamydia education sessions were held with GPs. GPs were required to complete a pre and post trial survey about their knowledge, attitudes and practice of chlamydia screening.

A total of 45 GPs participated in the trial; 20 males and 25 females. The median age of GPs was 48 years (range 30-70) with a median number of years worked in general practice of 20 years (range 3-42). GPs worked a median of eight sessions per week (range 1-11). Overall, 82.2% of GPs had post-graduate qualifications and 91.1% were at least moderately interested in the management of sexually transmitted infections (STI).

During the 12 month pre trial period 5.9% (178/3040) of women in the control group were tested at least once for chlamydia, compared to 11.4% (305/2672) of women in the intervention group (df = 5.6%, p=0.00). In the same time period, 9.0% (16/178) of women in the control group tested positive for chlamydia compared to 9.2% (28/305) of women in the intervention group (df=0.2%, p=0.93).

Further analysis will determine if there was a greater increase in testing rates in the intervention group compared to the control group and the barriers and facilitators to testing in general practice.

O8.4. PARENTHOOD AND SAFER REPRODUCTIVE HEALTH CHOICES AMONG HIV-INFECTED MEN AND WOMEN IN CAPE TOWN, SOUTH AFRICA

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Background
In developing countries, a sizeable proportion of women and men in their reproductive years are living with HIV and desire children, especially since access to antiretroviral drugs has begun to normalize their lives. This presents an important opportunity to address their needs for safer conception, pregnancy and childbirth. Little is known about how HIV+ women and men feel about safer conception and assisted reproduction.
Methods
We conducted three semi-structured individual in-depth interviews with a cohort of 56 HIV+ men and women attending the public sector care system in Cape Town, South Africa to inform the development of a structural intervention to address reproductive health decision-making. Interviews occurred soon after entry into HIV care and at approximately 9 months and 18 months after HIV diagnosis. Key issues explored included the desire for contraception or pregnancy; changes in sexual functioning due to HIV; reproductive decision-making processes; attitudes about safer conception; and opinions on integration of reproductive health and HIV care.
Results
Strong desire to experience parenthood was expressed, particularly by HIV-infected women and men who had no children. Participants considering having children were keenly interested to learn more about options for safer conception and childbearing in the context of HIV. Partner insemination in the case of HIV+ women with negative male partners was most acceptable to those desiring biological children. Some participants were prepared to consider alternatives to biological parenthood if they were unable to ensure greater safety in conception. Participants sought greater integration of reproductive health and HIV services to provide them with knowledge and services to ensure safer choices. Initiatives to achieve this in low resource contexts will be explored.
Conclusion
The integration of preconception counselling into HIV care services is critical to optimize reproductive health outcomes for potential parents and infants.

O8.5. INTEGRATION OF SEXUALLY TRANSMITTED INFECTION (STI) MANAGEMENT INTO HIV OUTPATIENT CLINICS IN MOZAMBIQUE, 2008

Judite Langa *- Centers for Diseases Control and Prevention - Mozambique. 2: Felisbela Gaspar - Ministry of Health 3: Elena Folgosa - Eduardo Mondlane University 4: Rui Bastos - Maputo Central Hospital 5: Americo Munjovo - Xai-Xai Provincial Hospital 6: Jennifer Mika - Centers for Disease Control and Prevention - Atlanta 7: Ron Ballard - Centers for Disease Control and Prevention - Atlanta 8: Lisa Nelson - Centers for Disease Control and Prevention - Mozambique 9: Lori Newman - Centers for Disease Control and Prevention - Atlanta*

Objectives
To assess burden of sexually transmitted infections (STIs) among HIV-infected patients and identify opportunities to improve STI care in Mozambique.
Methods
Cross-sectional evaluation of STIs among HIV-infected patients seeking care for the first time in two HIV outpatient clinics. Data include routinely collected clinical information, supplemental questionnaire, physical examination, and laboratory testing of specimens collected irrespective of symptoms. Routine HIV care was

provided to all participants. Participants with symptomatic STIs were treated using national STI syndromic guidelines; asymptomatic patients received treatment per laboratory results one month later.

Results

498 patients were enrolled (240 men and 258 women) from October 2007 to March 2008; 46% of patients had CD4 count <200. STI symptoms (discharge, ulcer/blister, warts, dysuria, lower abdominal pain) were reported by 20.5% of men and 63.5% of women. STI physical exam findings were present in 16.1% of men and 74.9% of women. Laboratory findings were: serologic evidence of HSV2 = 91.0%; RPR and TPPA positive = 15.2%; gonorrhea = 1.3% (men) and 2.1% (women); chlamydia = 0.4% (men) and 2.5% (women); trichomoniasis = 10.2% (men) and 48.5% (women); M. genitalium = 11.4% (men) and 11.8% (women); HSV PCR positivity in patients with genital ulcers on exam = 80% (16/20). Chlamydia, trichomoniasis, and M. genitalium were more common among women reporting discharge and gonorrhea, trichomoniasis and M. genitalium were more common among men reporting discharge.

Conclusions

HIV-infected patients, particularly women, in Mozambique had high prevalence of STIs at their first HIV care visit. Genital ulcers were mostly associated with HSV infection, a known facilitator of HIV transmission. Many patients were symptomatic, highlighting need to ensure high-quality STI syndromic management in HIV clinics. Ssignificant burden of disease was also present among asymptomatics, suggesting need for additional strategies and expanded laboratory testing for a population at high risk of transmitting HIV.

O8.6. BARRIERS FOR COLLABORATION BETWEEN TRADITIONAL HEALERS AND NATIONAL HEALTH SYSTEM IN CARING FOR PATIENTS WITH STDs IN ZAMBZIA PROVINCE, MOZAMBIQUE: FINDINGS FROM A QUALITATIVE STUDY

Carolyn Marie Audet *- Vanderbilt University. Mohsin Sidat-Universidade Eduardo Mondlane*

Background

Despite an influx of Global Fund and PEPFAR funding, many rural communities in Mozambique still lack access to modern medicine. Limited access to treatment for infectious diseases, in conjunction with low literacy rates and limited education campaigns about STDs are some contributing factors for 18% HIV prevalence rate in Zambzia Province and high rates of syphilis, gonorrhea, and herpes. Too few clinics exist, and those that provide services are limited by personnel and supply shortages. The majority of the population visit curandeiros (traditional healers) for treatment. Curandeiros are highly regarded members of their communities who have a strong influence on the interpretation of disease causation and decisions for treatment of their patients. Negative stereotypes held by health care providers, coupled with the mistrust held by curandeiros towards them, have created barriers to collaboration.

Methods

Fifty curandeiros in Zambzia Province were randomly chosen to be interviewed about their knowledge and treatment practices for sexually transmitted infections (STIs), as well as their willingness to work more closely with the national health care system. Twenty five healers had received infectious disease identification and safety training from the NGO Friends in Global Health, while 25 had received no such training. Five patients of each curandeiro were identified and interviewed about their understanding of disease causation and treatment options.

Results

Curandeiros could often identify the cause and symptoms of HIV/AIDS but other STIs were less well understood. Many curandeiros are interested in working with the national health system and are requesting additional training on infectious disease identification and treatment. Structural and social barriers restrict appropriate cooperation between the biomedical system and traditional healers, including a government restriction on having traditional healers in the medical clinics, barriers in referral process between traditional healers and the health care facilities, and a lack of recognition by health authorities of the role played by traditional healers in providing valuable health care to population, particularly in rural settings where the care provided by them is sought as primary even before accessing formal health care facilities.

Conclusion

Curandeiros and their patients tend to have similar opinions as to what they think are the cause and appropriate treatment of STIs; therefore improved education of healers may lead to an increased awareness of STI causes and treatment throughout the population. Structural changes to the national health services could allow curandeiros to play a more active role in the implementation of government health initiatives.

Poster Session 1

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P1.1.2	Adeyinka Olufolake Adefolarin	CONDOM USE AMONG HIV POSITIVE WOMEN ACCESSING CARE AT AN ANTIRETROVIRAL CLINIC IN IBADAN,NIGERIA
P1.1.3	Komivi Mawusi Aho	BALANCE SHEET OF THE ACTIVITY OF THE LABORATORY OF VIROLOGY OF CHU-TOKOIN OF LOME BETWEEN JANUARY 2004 AND DECEMBER 2006: PREVALENCE OF THE HIV INFECTION (ABOUT 8190 CASES COLLECTED)
P1.1.4	Jordi Casabona	COMMUNITY-BASED HIV/STI MOBILE VAN: A COMPARISON OF HIGH-RISK USERS WITH THOSE TESTING IN TRADITIONAL VOLUNTARY COUNSELING AND TESTING CLINICS, GUATEMALA
P1.1.5	Nomazizi Sheila Cishe	PREVENTING STIS AND SECONDARY HIV TRANSMISSION: SEXUAL RISK AND RISK-REDUCTION AMONG HIV-INFECTED MEN AND WOMEN IN CAPE TOWN, SOUTH AFRICA
P1.1.6	Theodora Ezeudenwa	IMPROVING ARV ADHERENCE THROUGH THE APPLIED HOME-BASED CARE (HBC) TRACKING SYSTEM IN NNAMDI AZIKIWE TEACHING HOSPITAL (NAUTH), NNEWI, NIGERIA
P1.1.7	Emmanuel Godwin	SYNDROMIC MANAGEMENT OF STI AS A MITIGATION COMPONENT IN HIV/AIDS PREVENTION AMONGST MEN WHO HAVE SEX WITH MEN (MSM) IN ABUJA
P1.1.8	Mamakiri Khunwane	ADOLESCENT HIV RISK REDUCTION COUNSELING IN SOUTH AFRICA: A PERSPECTIVE FROM COUNSELORS.
P1.1.9	Aklilu Kidanu	THE VOLUNTARY HIV COUNSELING AND TESTING INTEGRATED WITH CONTRACEPTIVE SERVICES (VICS) STUDY IN ETHIOPIA
P1.1.10	Lila Kyalo	THE NEXUS BETWEEN SEXUAL VIOLENCE AND VULNERABILITY TO HIV/AIDS AND STIS INFECTIONS: IMPLICATIONS FOR PRACTICAL RESPONSES IN GLOBAL CRISIS AND UNSTABLE SITUATIONS
P1.1.11	Kristen Lockwood	RAPID SCALE-UP OF LABORATORY SERVICES FOR A NATIONAL HIV TREATMENT PROGRAM IN LUSAKA, ZAMBIA: IMPACT OF UTILIZING AN ELECTRONIC TRACKING SYSTEM ON TURNAROUND TIME (TAT)
P1.1.12	Ntambwe Malangu	SATISFACTION AND EXPERIENCES OF BOTSWANA WOMEN WITH THE HIV PREVENTION OF MOTHER-TO-CHILD TRANSMISSION PROGRAM IN MAHLAPYE
P1.1.13	Zizipho Z.A. Mbulawa	HUMAN IMMUNODEFICIENCY VIRUS INFECTION IN WOMEN INFLUENCES THE LOW-RISK HUMAN PAPILLOMAVIRUS (HPV) PREVALENCE IN THEIR MALE PARTNER BUT NOT HIGH-RISK HPV PREVALENCE
P1.1.14	Othiniel Musana	PREVALENCE OF HPV INFECTION AND OF PREINVASIVE CERVICAL LESIONS AND THEIR ASSOCIATION WITH HIV INFECTION IN WOMEN FROM KAMPALA, UGANDA
P1.1.15	Karoly Nagy	TRANSMISSION OF DRUG RESISTANT HIV IN THERAPY-NAIVE PATIENTS IN LOW ENDEMIC AREA
P1.1.16	Rokhaya Nguer	THE "DIALOGUE SPACES" TO REDUCE STIGMA AND DISCRIMINATION AMONG HIV POSITIVE PREGNANT WOMAN IN PMTCT CENTERS
P1.1.17	Theogene Nshimiyimana	HIV-STI SYNERGY: AN ASSESSMENT OF MISSED OPPORTUNITIES FOR PREVENTION: THE CASE OF ZAZI VCT CENTRE - JOHANNESBURG
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P1.1.19	Olanrewaju Onigbogi	PREVALENCE OF HUMAN PAPILLOMAVIRUS (HPV) INFECTION AMONG HIV-POSITIVE WOMEN IN THE PRE-HAART AND HAART ERA IN A NIGERIAN CLINIC
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P1.1.21	Cita Rosita Sigit Prakoeswa	SPECIES DISTRIBUTION OF ORAL CANDIDIASIS AND ITS RELATIONSHIP TO CD4+ T-LYMPHOCYTE COUNT IN HIV / AIDS PATIENTS IN INDONESIA
P1.1.22	Nathan Ryder	ANNUAL SCREENING OF HIV-INFECTED PATIENTS FOR NON-AIDS-RELATED MORBIDITY; AN EVIDENCE-BASED MODEL OF PRACTICE
P1.1.23	Naeem Hassan Saleem	KNOWLEDGE OF SEXUALLY TRANSMITTED INFECTIONS (STIS) AND SERVICE UTILIZATION PATTERN AMONG TRANSGENDER SEX WORKERS FROM TWO URBAN CENTERS IN PAKISTAN.
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P1.2.9	Marius Domeika	OPTIMIZATION, HARMONIZATION AND QUALITY ASSURANCE OF THE LABORATORY DIAGNOSIS OF SEXUALLY TRANSMITTED INFECTIONS IN EASTERN EUROPE
P1.2.10	Christopher Fairley	RAPID DECLINE IN PRESENTATIONS FOR GENITAL WARTS AFTER THE IMPLEMENTATION OF A NATIONAL QUADRIVALENT HUMAN PAPILLOMAVIRUS VACCINATION PROGRAM FOR YOUNG WOMEN
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P1.2.15	Aleksander Guschin	EVALUATION OF GARDNERELLA VAGINALIS, ATOPOBIUM VAGINAE ROLE IN VAGINAL MICROFLORA ALTERATION IN PREGNANT WOMEN BY REAL-TIME PCR.
P1.2.16	Aleksander Guschin	THE PROBABILITY OF VERTICAL TRANSMISSION OF GENITAL MYCOPLASMAS (UREAPLASMA PARVUM, UREAPLASMA UREALYTICUM, MYCOPLASMA HOMINIS,MYCOPLASMA GENITALIUM) AND THEIR ROLE IN THE NEONATAL PATHOLOGY DEVELOPMENT.
P1.2.17	Aleksander Guschin	THE ROLE OF GENITAL MICOPLASMAS (MYCOPLASMA GENITALIUM, MYCOPLASMA HOMINIS, UREAPLASMA UREALYTICUM, UREAPLASMA PARVUM) IN COMPLICATION DEVELOPMENT DURING PREGNANCY AND EARLY NEONATAL PERIOD.
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P1.2.19	Fauzia Khan	TRANSGENDER, STIS/ HIV AIDS, CULTURAL PRACTICES IN PAKISTAN
P1.2.20	V.P. Kovalyk	THE ROLE OF GONOCOCCI, CHLAMYDIA AND MYCOPLASMAS IN MALE INFERTILITY FOLLOWED BY EPIDIDYMITIS
P1.2.21	Natasha Larke	SYSTEMATIC REVIEW OF THE ASSOCIATION BETWEEN MALE CIRCUMCISION AND HUMAN PAPILLOMA VIRUS, GENITAL WARTS AND PENILE CANCER IN MALES

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P1.3.2	Munir Akinwale Bankole	LOW LEVEL OF COMPLIANCE TO CONDOM USE AMONG MEN WITH MULTIPLE SEXUAL PARTNER IN LAGOS, NIGERIA
P1.3.3	Lindiwe Farlane	THE CHILD GOT ALL THOSE THINGS AND DROPS (NEVIRAPINE), BUT THEY DID NOT HELP. RESTORING HOPE, AND REDUCING ANXIETIES?

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P1.3.5	Marshall W. Munjoma	RISK FACTORS FOR HSV-2 AMONGST HIV INFECTED AND UNINFECTED PREGNANT TEENAGERS IN ZIMBABWE
P1.3.6	Kolawole Muyideen Oreoluwa	IMPACT OF COMIC BOOK ON THE HIV/AIDS PREVENTIION EDUCATION AMONG YOUNG PEOPLE IN OSUN STATE, NIGERIA.
P1.3.7	Dinah Tumukunde	PREDICTORS OF RISKY SEXUAL BEHAVIOUR IN HIV/AIDS PATIENTS EXPERIENCED AND NAVE TO ANTIRETROVIRAL THERAPY IN KAMPALA, UGANDA.
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P1.4.6	Natalie Leon	PROVIDERINITIATED TESTING AND COUNSELLING (PITC): PATIENT TEST DECISION-MAKING AND INFORMED CONSENT.
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P1.4.13	Alex Vezi	DEVELOPMENT OF STI EDUCATIONAL MATERIALS AND PARTNER NOTIFICATION CARDS: FINDINGS FROM FOCUS GROUPS IN GAUTENG PROVINCE, SOUTH AFRICA

P1.1.1. PATTERN OF SPOUSAL DISCLOSURE AMONG HIV POSITIVE WOMEN ATTENDING AN ANTIRETROVIRAL CLINIC IN IBADAN, NIGERIA

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Background
Spousal disclosure has a vital role to play in the reduction of sexual HIV transmission in Nigeria. This study described the pattern of disclosure of HIV status among HIV positive women accessing care at the President Emergency Program For AIDS Relief clinic, Ibadan. Nigeria
Method
Pattern of disclosure of HIV-status was examined among consenting 396 HIV-positive women accessing care at the PEPFAR clinic Ibadan. Semi structured questionnaire and Focus Group Discussion (FGD) sessions were used for data collection. Data were analyzed using descriptive statistics.
Result
The mean age of the participants was 34.89.0 years and 62.6% were married. Two hundred and sixty two (66.2%) respondents disclosed their HIV status to their partners. One hundred and sixty one (61.5%) respondents disclosed by self, counselor assisted (32.8%), member of family assisted (4.2%) and 1.5% was assisted by pastor.
Partners reaction to disclosure included neglect (5.1%), separation (5.9%) beating (0.8%) verbal abuse (2.8%), blame (2.8%), disclosure to others 1.8%, and apology (12.9%) and care (1.8%).The rest (32.3%) reported nothing. However, 125(31.6%) respondents reported that their source of social support has been their partners.
FGD discussants mentioned trust in partner and wanting partner also to test as the main reasons for disclosure. For those 133 (33.6%) respondents who did not disclose, not able to predict partners reaction (29.3%), not living together with partner (24.8%) and no partner (21.8%) were the main reasons reported.
Conclusion
The study found that more partners supported the respondents following disclosure of their HIV status. This positive attitude should be tapped as a spring board for building capacity of women for disclosure of status.

P1.1.2. CONDOM USE AMONG HIV POSITIVE WOMEN ACCESSING CARE AT AN ANTIRETROVIRAL CLINIC IN IBADAN,NIGERIA

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Background
Condon use remains one of the ways to prevent sexual transmission of HIV. However, its use among women living with HIV has not been well documented in Nigeria. This study therefore documented the use of condom among women living with HIV attending an ARV clinic in Ibadan, Nigeria.
Method
This descriptive study was carried out among 396 consenting HIV positive women selected using a multistage sampling technique in President Emergency Program for AIDS Relief clinic Ibadan. Data was collected using validated interviewer administered questionnaire and analyzed using descriptive and chi-square statistics.
Result
The mean age of the participants was 34.89.0 years, 62.6% were currently married. 96 (24.2%) 13.2% were never married and 66.2% had disclosed their status to their partners. Three hundred and fourteen (79.3%) of the respondents reportedly were sexually active, of these, 134 (42.7%) reportedly use condom in all sexual activities with their partners while 28.0% never used at all. A significant relationship was found between condom use and serostatus disclosure ($p<0.05$). Reported experiences among the 226 (72.0%) women who use condom included endurance 115 (50.9%), enjoyment (39.8%), complaint 12 (5.3%), fed up (2.2%) and annoyance (1.8%)

Conclusion
Condom use is prevalent among the study group and only few derived enjoyment from it, Therefore health promotion strategies such as individual psychotherapy and health education on proper use of condom should be put in place to encourage its use.

P1.1.3. BALANCE SHEET OF THE ACTIVITY OF THE LABORATORY OF VIROLOGY OF CHU-TOKOIN OF LOME BETWEEN JANUARY 2004 AND DECEMBER 2006: PREVALENCE OF THE HIV INFECTION (ABOUT 8190 CASES COLLECTED)

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Objectives
The aim of this work was to make the balance sheet of the activity of the laboratory of virology of the CHU-Tokoin by evaluating the prevalence of HIV infection of the said laboratory from 2004 to 2006.
Material and methods: it was about a retrospective survey of a cohort of 8190 patients and donors of blood who made themselves tested at the laboratory of virology of CHU-Tokoin of Lom.
Results
The age of the patients tested was comprised between five days and 95 years with a medium age of 12.18 years. The age group from 15 to 44 years has represented 71.3 % of the population tested. The feminine sex had herself cracked down with a sex-ratio of 0.71. The urban residence was more represented as well as the monogamists and traders / retailers. The educated mass was predominant to 81% and there was more volontary tracking. About the result of HIV serology the group from 15 to 49 was more affected with predominance of HIV-1 infection. The feminine sex was the most affected; the urban residence was the most affected. The monogamists were the most affected by three serotypes of HIV. The prevalence of the infection in HIV-1 has decreased from 35,7 % to 26,6 % between 2004 and 2006.
Conclusion
This survey has enabled to show that the prevalence of HIV infection at the laboratory of virology of CHU-Tokoin of Lom between 2004 and 2006 was superior to the national prevalence and that this prevalence is discreasing.
Perspectives
It will be necessary to reinforce the sensitization and the prevention of the HIV to hope again a diminution of this prevalence of the laboratory in the coming years.

P1.1.4. COMMUNITY-BASED HIV/STI MOBILE VAN: A COMPARISON OF HIGH-RISK USERS WITH THOSE TESTING IN TRADITIONAL VOLUNTARY COUNSELING AND TESTING CLINICS, GUATEMALA

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Background
Mobile van (MV) for HIV and other sexually transmitted infections (STIs) screening is effective in reaching at-risk populations. In June 2006, a voluntary counselling testing (VCT) service offering HIV and syphilis rapid tests was implemented through a community-based MV in Escuintla province, Guatemala. We aimed to compare behaviour characteristics and HIV and syphilis prevalence between subjects tested at the MV versus those tested at the traditional VCT service offered at 3 STI clinics.

Methods
Over 28 months, sex workers (SWs), men who have sex with men (MSM), and general population (GP) were tested and interviewed on their sociodemographic and risk behaviour in both settings. Proportions were compared using the chi-square test.
Results
We tested 2563 subjects (45.6% in the MV). The MV screened 70% of the SWs and 61% of the MSM, and detected 17.8% of HIV and 70.0% of syphilis cases. For both the GP and MSM, the HIV prevalence was significantly higher ($p<0.001$) at the STI clinics than at the MV (8.0% vs. 0.9%, 9.6% vs. 1.4%, respectively). At the STI clinics, both groups were more likely to: report symptoms (GP:2.6%, MSM:0.7%), perceive themselves at risk for HIV (GP:2.1%, MSM:4.4%), report condom use at last sexual intercourse (GP:20.0%, MSM:38.5%), have sex with SWs (GP:2.5%, MSM:18.5%) and with subjects with multiple partners (GP:17.2%, MSM:42.1%). In the MV, SWs were more likely to report condom use at last sexual intercourse, and having sex with injection drug users, bisexuals and subjects with multiple partners.
Conclusions
The higher prevalence of HIV and syphilis at the STI clinics suggests that the traditional VCT successfully identified high-risk subjects and, in particular, the unexpectedly high HIV prevalence among the GP suggests some lack of disclosure of risk behaviour. Nevertheless, innovative approaches such as MV contributed to increasing access to other hard-to-reach groups such as SWs.

P1.1.5. PREVENTING STIs AND SECONDARY HIV TRANSMISSION: SEXUAL RISK AND RISK-REDUCTION AMONG HIV-INFECTED MEN AND WOMEN IN CAPE TOWN, SOUTH AFRICA

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Background
There is increasing focus on the sexual risk behaviour of HIV-infected individuals at high risk of transmitting HIV and on positive prevention initiatives. This paper presents insights into sexual risk and risk-reduction behaviour of HIV-infected individuals seeking public sector care in Cape Town, South Africa, in order to curtail secondary transmission. These data will inform the development of a structural intervention to address sexual risk behaviour and reproductive health decision-making among PLWHA in HIV care.
Methods
Semi-structured, individual, in-depth interviews were conducted soon after entry into HIV care and approximately 9 months and 18 months after HIV diagnosis, with a cohort of 56 HIV+ men and women attending the public sector care system in Cape Town, South Africa. Key issues explored included changes in sexual functioning due to HIV, sexual behaviour post-diagnosis, reproductive decision-making processes; and opinions on the inclusion of reproductive health in HIV care.
Results
Avoidance of STIs that could worsen their health status and fear of becoming re-infected with other HIV strains were the strongest motivating factors for condom use. Concurrently, clients recounted difficulties in consistent, long-term condom use. Some men reported engaging in serial short-term sexual relationships rather than face disclosing their HIV status when needing to negotiate longer term continued condom use with a partner. Other key barriers to consistent condom use included: time and economic factors, HIV-concordant couple status and desire for children.
Conclusion
As access to ARVs in South Africa increases, the need for more in-depth research into PLWHAs sexual behaviour and reproductive health needs and practical interventions to prevent secondary transmission of HIV become priorities.

P1.1.6. IMPROVING ARV ADHERENCE THROUGH THE APPLIED HOME-BASED CARE (HBC) TRACKING SYSTEM IN NNAMDI AZIKIWE TEACHING HOSPITAL (NAUTH), NNEWI, NIGERIA

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Background
Over 7030 clients currently receive free ARV treatment in NAUTH. 25-30% of every booked case each month defaulted. Defaulters and drug adherence register showed that 15-20% defaulters were first-timers. They stopped taking ARVs due to side effects, some felt well,and forgot their appointment, some discontinue due to religious/family and economic problems. These contributed significantly to mortality and OIs rate among clients accessing ARVs/care in NAUTH.
NAUTH is faced with the challenges of setting up an effective ARV monitoring and adherence system that will enable clients gets maximum treatment benefit.
Methods
In October 2008, quality control group was formed with representative from each HIV care/treatment unit. Plans were drawn to contact every first- timer twice before the next clinic visit. Community HBC volunteers/PLWH in group of threes interacted with the new first-timers; collected their correct home addresses and phone numbers on clinic days.
ART first-timers were visited twice within one month appointment; their general health/condition, adherences and side effects were assessed. Pre-appointment homevisits paid to remind and encourage them to be at the clinic.
HBC tracking system also tracked defaulters to their homes, found out why they missed appointments, ensured their clinic attendances. Monitored new development of OIs and gave on-going adherence counseling.
Result
By May 2009, records showed that all first timers except 3% were adherent with no medical complaints. CD4 count for first-timers increased within the 1st-6 months and continues to rise as the viral load is suppressed. CD4 count screening changed from 2-3months to 6-9months because they are doing well clinically. More patients are retained on treatment while morbidity and mortality rate reduced.
Conclusion
ARV treatment and monitoring through HBC tracking system have contributed to strengthening the efficiency and effectiveness of HIV treatment. It is a good tool for defaulter control.

P1.1.7. SYNDROMIC MANAGEMENT OF STI AS A MITIGATION COMPONENT IN HIV/AIDS PREVENTION AMONGST MEN WHO HAVE SEX WITH MEN (MSM) IN ABUJA

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Background
The Centre for the Right to Health (CRH) is dedicated to research, training, service delivery and advocacy for the full realization of the right to health in Nigeria, especially for vulnerable groups, such as People Living With, at Risk of and Affected by HIV/AIDS.
Men who have Sex with Men (MSM) are one of the high-risk groups vulnerable to HIV infection.
Lack of Sexual reproductive health and HIV integrated services targeting MSM is likely a component of the HIV epidemic among MSM and play a key role in the dynamics of the epidemic (bridging population). These circumstances motivated the impact mitigation of the spread of HIV/AIDS among MSM project by the center.
Method
Consultations with MSM stakeholders were held for support and sense of ownership of the project. Selected key opinion MSM leaders were later trained as peer educators. The peer educators were motivated to identify other MSM and refer them to uptake services at our center.
Result: A total of 400 MSM where reached with HIV prevention information, condoms and lubricants.
77 (19.25%) of the above number also opted for HIV counseling and testing with18 (23.38%) positive and 59 (76.62%) negative. The positive clients were supported to enroll in National ART programs. All 400 clients reached with HIV prevention information were screened for STI and 27(6.75%) were actually managed for various types of STIs using the syndromic diagnosis approach and management protocol.

Conclusions
Integrating screening and management of STIs as an element of HIV/AIDS mitigation strategy can greatly reduce high risk groups like MSM predisposition to HIV infection. Majority of the clients treated complained to have had the symptoms for longer than a week and were still sexually active during the period of infection.

P1.1.8. ADOLESCENT HIV RISK REDUCTION COUNSELING IN SOUTH AFRICA: A PERSPECTIVE FROM COUNSELORS.

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Background
Young people continue to experience among the highest rates of HIV infection worldwide, with an estimated 45% of new HIV infections occurring among 15-24 year olds. Most of these infections are sexually transmitted. Risk reduction counseling as a component of Voluntary Counseling and Testing (VCT) is an effective HIV prevention strategy. Current VCT services in South Africa are not youth specific. As the majority of VCT counselors do not have tertiary qualifications, activities are conducted using a standard VCT protocol, with referral of clients needing specialized counseling. This study explored counselors perceptions of HIV counseling services for adolescents.
Methods
A qualitative methodology was used to gather data. Two mixed gender focus group discussions (FGDs) were held with 20 counselors (aged 19-45; all except one having basic lay counseling training; experience as counselors: 1 8 years) from 7 VCT sites (including counselors from: a VCT program for men, an adolescent program, and public sector services) affiliated to a research unit. FGDs were audio taped, transcribed verbatim and translated into English. Key themes were extracted by using MAXQDA software for data analysis.
Results
Four key themes emerged: operational guidelines, referral systems, lack of training, and lack of consultations in designing programmes. Counselors reported experiencing frustrations with VCT operational guidelines. They did not want to refer clients for specialized counseling mainly because referral systems are ineffective and not adolescent-specific. Most counselors lack the capacity to address adolescent psychosocial issues during VCT due to inadequate training. VCT services for adolescents are ineffective because counselors and adolescents are not consulted in designing these programmes.
Conclusions
These findings highlight the need to modify programmatic and policy approaches by consulting counselors and adolescents to make counseling services appropriate for adolescents and improve VCT overall. Counselors need continuous and additional training to improve their counseling skills as well as counseling services.

P1.1.9. THE VOLUNTARY HIV COUNSELING AND TESTING INTEGRATED WITH CONTRACEPTIVE SERVICES (VICS) STUDY IN ETHIOPIA

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Background
Voluntary Counseling and Testing (VCT) is a core part of HIV/AIDS prevention and treatment programs. Because both VCT and family planning programs help clients avoid unwanted consequences of their sexual behavior -- HIV and unintended pregnancies many policy makers believe that integrating these two services would increase coverage and efficiency.
Objectives
VICS Study aimed at (i) estimate the need and demand for family planning among VCT clients; (ii) assessing clients contraceptive uptake in VCT sessions, (iii) determining what kinds of clients received contraceptive counseling and/or methods, and (iv) examining the effect of family planning integration on HIV counseling
Method
VICS was conducted in eight public sector facilities in the Oromia Region, Ethiopia. In 2006, 4,000 clients receiving standard-of-care VCT were interviewed about their contraceptive practices and needs.

Approximately 18 months after the introduction of a family planning intervention in VCT sites, 4,000 additional clients were interviewed using the same survey instrument.

Results

Most of the VICS clients were at low risk for HIV and unintended pregnancy, either because they were not having sex or were already using contraceptives. This may explain the relatively low contraceptive uptake among study participants. Importantly, however, the quality of both HIV and family planning counseling improved dramatically, indicating, at the very least, that service integration is possible in the Ethiopian context. Offering services that do not reflect the needs of the programs catchment population is a persistent concern for all health programs. The most salient finding from the VICS study is that policy makers and program managers should know and understand the target client population before deciding whether service integration is likely to be efficacious or cost-effective.

P1.1.10. THE NEXUS BETWEEN SEXUAL VIOLENCE AND VULNERABILITY TO HIV/AIDS AND STIs INFECTIONS: IMPLICATIONS FOR PRACTICAL RESPONSES IN GLOBAL CRISIS AND UNSTABLE SITUATIONS

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Introduction and Background

Recent estimates indicate a decline in the Kenyan national HIV prevalence (9% in 1998 to 5.1% in 2008, 1.6% annual decline). The post-election violence in Kenya one and half years ago, however threatens to reverse these gains. This is because the risk of infection with HIV/AIDS and other STIs increases with sexual violence compared to consensual sex due to increased genital injury, anal rape, multiple perpetrators and ejaculation all which are common in sexual violence.

Objectives

Based on the Kenyas post-election violence, this study proposed a macro level model for understanding the risks factors for STIs, and HIV/AIDS transmission within the context of sexual violence. Its main objective was to explore and identify bio-medical and epidemiological factors that act as conduits for the transmission of HIV/AIDS and other STIs within crisis and unstable settings.

Methodology and Results

Interviews and VCT were administered to both multistage cluster and purposively-random sampled internally displaced persons. A multiple logistic regression model controlling age, condom use (if any), and biological influences like the routes of exposure whether vagino-penile or anal-penile and sex of both victims and assailants was adopted. Overall prevalence for HIV, syphilis and gonorrhea: 2.3%, 1.1%, and 3.1% respectively among men. For women: 2.7%, 1.9%, and 4.2.0% respectively

Conclusion and Recommendations

Sexual violence diminishes peoples social capital in terms of social networks, norms, and traditions that could prove to be conducive to the spread of the HIV. To this end, we recommend early-diagnosis to allow treatment of sexual violence survivors. Post Exposure Prophylaxis (PEP), to address exposure to HIV as a result of sexual violence, emergency contraception and VCT should form the backbone for intervention humanitarian or otherwise- in regions experiencing instability and crises in order to address the menace of HIV/AIDS and other Sexually Transmitted Diseases infections.

P1.1.11. RAPID SCALE-UP OF LABORATORY SERVICES FOR A NATIONAL HIV TREATMENT PROGRAM IN LUSAKA, ZAMBIA: IMPACT OF UTILIZING AN ELECTRONIC TRACKING SYSTEM ON TURNAROUND TIME (TAT)

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Background

The Center for Infectious Disease Research in Zambia (CIDRZ) works with the Ministry of Health (MOH) to provide free antiretroviral treatment, including laboratory testing, for over 110,000 HIV-infected adults and children. All laboratory testing occurs at the CIDRZ Central Laboratory, which has been challenged to keep pace with the increased demands while maintaining an acceptable TAT. An electronic Laboratory Information Management System (LIMS) is used to monitor all stages of work processed. Information from this system

helps guide process improvement projects for incoming samples, focused on reducing TAT while maintaining high quality results.

Methods

The LIMS was used to track the average number of samples received and average TAT for four common laboratory tests. TAT was defined as the time from when a sample was received in the lab until the result was released for printing.

Results

Between May 2008 and April 2009, the number of CD4, Creatinine, ALT, and Hemoglobin tests received in the lab increased by 21%, while mean TAT for those tests decreased by 50% (from 93:03 hours to 46:39 hours) over the same period.

Conclusions

The decreased TAT is indicative of proper forecasting for analytical capacity in a resource limited setting. Electronic data tracking provided a real-time means of monitoring pending work, which reduced the need for re-collections due to sample expiration and thus reduced the overall total laboratory processing time. It also allowed for the prediction of future workflow, which led to implementation of new staffing strategies and procurement of additional equipment. LIMS provided a means for the laboratory to better manage workload, allowing for more timely provision of results to care providers and thereby improving the patient care cycle.

P1.1.12. SATISFACTION AND EXPERIENCES OF BOTSWANA WOMEN WITH THE HIV PREVENTION OF MOTHER-TO-CHILD TRANSMISSION PROGRAM IN MAHLAPYE

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Background

Since 2001, Botswana government introduced a program on prevention of mother to child transmission (PMTCT) in all prenatal clinics. This study aimed at describing the experiences of pregnant women who patronized the clinics in Mahalapye health district.

Methods: Through an interviewer-administered questionnaire, data were collected on 110 respondents who consented to be enrolled in the study. Data on demographic, clinical variables, and their views were collated during February to April 2007.

Results

The majority of participants were multigravida (58%), aged 21 to 30 years old (66.4%), unemployed (68.2%), having attained a high school level of education (71%), and single (93.6%). All of them had been counselled and agreed to be tested for HIV. The majority of them (90%) had discussed with their partner about testing for HIV, and 64.5% of them were counselled individually. About 45.5% tested positive for HIV. Though the most of them (87%) disclosed their results to their partners, 14 respondents that tested positive did not do so. After disclosing, a third of respondents (33.3%) stated that relationship changed as their partner left (21.3%) or they were not as happy as before (12.0%). With regard to satisfaction with the PMTCT program, the majority of respondents (84%) conceded that confidentiality was maintained by health care providers during counselling and testing; and that this was done during their first visit (80%). Almost all of them (97%) stated that they would recommend the program to other pregnant women, suggesting that their relationship with the providers of services was good.

Conclusion

Though the majority of respondents were satisfied with the PMTCT program, and were tested for HIV, a third of them experienced relationship difficulties with their partners after disclosing that they were HIV-positive. Interventions and strategies should be devised to address the issue of partners involvement in PMTCT.

P1.1.13. HUMAN IMMUNODEFICIENCY VIRUS INFECTION IN WOMEN INFLUENCES THE LOW-RISK HUMAN PAPILLOMAVIRUS (HPV) PREVALENCE IN THEIR MALE PARTNER BUT NOT HIGH-RISK HPV PREVALENCE

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Background
We investigated the influence of human immunodeficiency virus (HIV) infection on the genital low-risk human papillomavirus (LR-HPV) and high-risk (HR) HPV prevalence of sexual partners. Method: Participants were 409 black couples aged 18 to 65 years. One-hundred and twenty-two couples were both HIV-negative, 101 were both HIV-infected, 144 were HIV-discordant where only the women were HIV-positive and 42 were HIV-discordant where only the men were HIV-positive. Cervical and penile HPV types were determined by Roche HPV genotype assay.
Results
HIV-positive men were found to have a significantly higher prevalence of both LR and HR-HPV types compared to HIV-negative men (LR-HPV: 67% 93/139, 44% 113/255 respectively P<0.0001; HR-HPV: 57% 79/139, 30% 76/255 respectively P<0.0001). HIV-positive women were also found to have a significantly higher prevalence of both LR and HR-HPV types compared to HIV-negative women (LR-HPV: 56% 138/244, 23% 38/164 respectively P<0.0001; HR-HPV: 56% 136/244, 25% 41/164 respectively P<0.0001). There was no difference in the LR-HPV prevalence (67% 93/139, 56% 138/244 respectively P=0.05) or HR-HPV prevalence (57% 79/139, 56% 136/245 respectively P=0.80) comparing HIV-positive men with HIV-positive women. However HIV-negative men were found to have significantly more LR-HPV types compared to HIV-negative women (44% 113/255, 23% 38/164 respectively P<0.0001) but not for HR-HPV types (30% 76/255, 25% 41/164 respectively P=0.28). Men, whether HIV infected or not, with HIV-positive female partners were found to have a significantly higher LR-HPV prevalence compared to those with HIV-negative female partners. However female partner HIV status did not affect the genital HR-HPV prevalence in the men. Male HIV status was not found to influence the LR-HPV or HR-HPV prevalence in their female partner.
Conclusion
Female HIV-positive status significantly increases the LR-HPV prevalence of their male partner but not the HR-HPV prevalence.

P1.1.14. PREVALENCE OF HPV INFECTION AND OF PREINVASIVE CERVICAL LESIONS AND THEIR ASSOCIATION WITH HIV INFECTION IN WOMEN FROM KAMPALA, UGANDA

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Background
Infection with high risk (HR) HPV strains is common in sub-Saharan Africa. HPV infection may resolve spontaneously or persist to cause low/high grade intraepithelial squamous lesions (LSIL/HSIL) which may progress to cancer. Uganda has the highest incidences of cervical cancer worldwide. Data on HPV genotypes circulating among women in Uganda are limited.
Objectives
To determine the prevalence of HPV genotypes and of LSIL and HSIL and their association with HIV infection in a female population from Kampala.
Methods
Sexually active women presenting at health centers in Kampala for non-gynaecological reasons were screened for cervical cancer and HPV. Consenting women underwent an HIV test and gynaecological examination including colposcopy. A cervical swab was collected and sent to the MRC laboratories for HPV DNA screening and genotyping using Roche Linear Array HPV test.
Results
394 women aged 18-60 years were enrolled. Prevalence of HR HPV infection was 15.9%. HPV 16, 18, 31 & 45 together accounted for 70.3% of HR HPV detected. Other strains found included HPV35(15.9%), HPV58(12.7%), HPV56(11.1%), HPV39(12.7%), HPV51(4.8%), HPV59(6.4%) and HPV52(6.4%). 61.9% of HPV infections were due to multiple infections, mostly involving HPV16 (30.8%), HPV39(20.5%), HPV31(17.9%), and HPV58(15.4%). HSIL was detected in 6.4% of the women and LSIL in 21.4%.

HIV prevalence was 12.0%. HIV+ve women were more often HPV infected than HIV-ve women (57.5% vs. 18.7%, P<0.001). HIV+ve (14.9%) were more likely to have HSIL than HIV-ve women (5.2%, P=0.011).
Conclusions
A proportion of the HPV infection circulating in this Ugandan population may not be prevented reliably by available HPV vaccines. In addition to HPV vaccine programmes targeting young girls, a screening programme for the detection of cervical cancer and of precancerous lesions is urgently needed for sexually active women. HIV care services should regularly include screening for cervical lesions.

P1.1.15. TRANSMISSION OF DRUG RESISTANT HIV IN THERAPY-NAIVE PATIENTS IN LOW ENDEMIC AREA

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Objectives
To identify drug resistant mutations in HIV-1 rt and pr genes in primary HIV infected therapy naive individuals.
Methods
Genotyping of HIV was done by in situ DNA hybridization using a Line Probe Assay (Inno-LiPA) and with Truegene HIV-1 Genotyping kit and OpenGene Sequencing System (Siemens). Results: Viral variants harboring resistance mutations were detected in 15% of the subjects . Multiple drug resistant viruses were present in 3.5% of those studied, mainly in recently infected patients. Amino acid substitutions in RT were only found in those infected before year 2000 as T69D (4.5%), T215S/D (6%) and T215A/V (3%). In protease gene only minor resistant mutations were found such as L10I and A71V.These findings indicate the evolution of drug resistance showing a correlation with the time of introduction of combination therapy in our country, where more than 70% of HIV infection have been acquired by homo/bisexual transmission.
Conclusions
Surveillance of antiretroviral resistance is a main objective of our anti-HIV program. Our study confirms the transmission of drug-resistant HIV revealed by genotype testing during primary infection and raises serious clinical and public health consequences. Development of resistance leads to disease progression. Drug resistance testing (HIV genotyping) at the time of diagnosis should be the standard of care in countries belonging to low HIV endemic area of Europe.
(Supported partly by OTKA T048917 Grant)

P1.1.16. THE "DIALOGUE SPACES" TO REDUCE STIGMA AND DISCRIMINATION AMONG HIV POSITIVE PREGNANT WOMAN IN PMTCT CENTERS

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SWAA/Senegal has developed a program to reduce stigma and discrimination of HIV+ pregnant women at 8 sites of HIV Prevention of Mother To Child Transmission.
The strategy used was the Dialogue Spaces. The objectives were to assist participants to define and understand the causes, forms and consequences of stigma among PLWHA which is a barrier for universal acces to treatment and care.

Why a Dialogue Space?
Experience demonstrates that successful national response to AIDS can only be achieved with the engagement of all stakeholders. The dialogue spaces act as a bridge between health providers, PLWHA and all other community actors, during sessions focused on themes related to stigma and discrimination and access to HIV treatment. They unfold on a levelled playing field between these participants.
The dialogue space facilitator introduced a game at the end of which some participants were excluded because they play wrong. Then those who were excluded expressed their feelings and talk about a situation in which they was isolated, mocked, discriminated or stigmatized by parents, friends, at work place, hospital, school, ...
The aim of the facilitator is to feel the pain of being rejected, isolated or condemned. After the game participants discuss on this theme and name the causes, forms and consequences of stigma.

Results
- During the dialogue space in 2008, 1805 participants including health workers involved in psychosocial care, and people living with HIV (PLHIV) were aware of the consequences of stigma.
- In the early dialogue spaces, the majority of participants did not understand the word stigma, even those who were trying to find a good description of the word, they confused the forms to the causes and / or the stigma itself.
- After the dialogues and role plays, participants were able to raise at least 3 causes, 3 forms and consequences of stigma and promise to fight this problem.

Lessons learned
Dialogue Space helps participants to understand how stigma effects people who experienced isolation, and exclusion. This helps participants to have a better understanding of the effects of stigma and to pay attention on how they act with PLWHA or disabilities.

P1.1.17. HIV-STI SYNERGY: AN ASSESSMENT OF MISSED OPPORTUNITIES FOR PREVENTION: THE CASE OF ZAZI VCT CENTRE - JOHANNESBURG

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In 2006 the US Centers for Disease Control and Prevention estimated that 25% of HIV-positive individuals who are unaware of their serostatus maybe responsible for about 50% of new HIV infections. Recent empirical evidence from developed countries indicates that STIs are significant HIV co-transmitters. These findings suggest a need for re-evaluation of procedures at VCT sites.
Screening VCT clients for STIs is potentially an important intervention for HIV prevention because their transmission pathways overlap. This study assesses missed HIV-STI prevention opportunities through failure to encourage STI screening and testing in VCT clinics. Clients who test positive for an STI may also have been or will be exposed to HIV-infection.

Methodology
We use data collected at ZAZI (a VCT clinic in Soweto) between December 2008 and May 2009 on 2,931 clients. Using STATA, we examined the correlation between HIV-test and STI-screening and results, to measure unexplored opportunities for HIV-prevention and prevalence estimation.

Results
Although patterns could change as more data are collected, preliminary results for all clients show an overall HIV prevalence of 35.9%, with clients aged 25-34 constituting almost half. HIV-prevalence differed significantly by gender; 45.2% among females and 21% among males. Of all clients, only 4.1% were screened for STI. Preliminary trends show some association between HIV status and STI screening and results. For those who were not screened for STI, HIV-prevalence was 35.8% compared to 38% for those who were. Furthermore, HIV prevalence was 25% for those testing positive for STI versus 15% for those who tested negative.

Conclusion
Preliminary results indicate that clients with STI have a greater likelihood of being HIV-positive. Increasing STI screening is an essential component to prevent HIV-transmission and should be integrated into all VCT programmes.

P1.1.18. STIGMA/DISCRIMINATION OF HIV/AIDS; THE ROLE OF THE COMMUNITY IN AMANSIE WEST DISTRICT OF GHANA

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Objective
To assess the impact of stigma and discrimination in the community, Amansie West District, on People Living with HIV/AIDS.

Methods
The study was conducted in The Amansie West District in Ghana. A systematic random sampling was employed in the study area for this project to select 4 out of the 7 sub-districts in the district. Questionnaire was used as instruments to collect data. The data was collected using key words such as Measure of stigma and discrimination, attitudes and perceptions of HIV/AIDS, in 12 Communities from 4 Sub-districts, using systematic sampling method. 4 urban and 8 rural communities were systematically selected for the survey. 380 eligible persons aged 14-65 years were interviewed for the project.

Findings
Of 380 respondents who completed the interview, 231 (61%) stated that they would not buy food from a shopkeeper or food seller with HIV/AIDS. Among the respondents, 240 (63.2%) showed negative attitude that they would not recommend a loan for a family with someone who has HIV/AIDS. 234 (61.6%) of the respondents expressed their unwillingness attitude to work with their co-worker who has HIV/AIDS.
Conclusion
A high proportion of the respondents expressed negative attitudes towards a shopkeeper or food-seller who has HIV/AIDS. This indicates that, PLWHA and their business will suffer if people stop buying from them. The study also revealed that majority of the respondents expressed their discriminatory attitudes towards PLWHA and their family by not recommending them for a loan. Therefore, these people will find it difficult to get financial support to expand their businesses.
On the area of employment, when majority are not willing to work with a co-worker who has HIV/AIDS it will increase in poverty level resulting hardship for them.

P1.1.19. PREVALENCE OF HUMAN PAPILLOMAVIRUS (HPV) INFECTION AMONG HIV-POSITIVE WOMEN IN THE PRE-HAART AND HAART ERA IN A NIGERIAN CLINIC

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Objectives
The prevalence of HIV infection has been on the increase in Nigeria in recent times. HIV-positive patients frequently have anogenital malignancies due to HPV. HAART was introduced in Anti-retroviral (ARV) centers in Nigeria in the year 2002. The aim of the study is to determine trends in incidence of anogenital malignancies among HIV-positive women undergoing treatment in the clinic in the pre-HAART and HAART era.
Methods
A retrospective review of 541 case notes of HIV-positive female patients from January 1999 to December 2004 were analyzed by utilizing an on-going observational database at the ARV center. Rate ratios, comparing incidence rates (number of malignancies per 1000 person years) were calculated.
Results
Twenty-four (4.43%) of the patients had one form of anogenital manifestation of HPV or the other. The incidence rate for HPV rose from 2.28 in the pre-HAART era to 6.40 in the HAART era (Rate ratio = 3.15; 95% confidence interval (CI) =1.31 7.44; p= 0.0002).
Conclusion
There has been a significant rise in the incidence of HPV since the introduction of HAART. This may be due to the longer survival of HIV-infected patients, surpassing the latency period for the anogenital malignancies. Care providers should be more vigilant for HIV-associated malignancies as patients live longer in this part of the world.

P1.1.20. FIRST UK CASE OF LARYNGEAL HISTOPLASMOSIS IN AN AIDS PATIENT SUCCESSFULLY TREATED WITH ORAL FLUCONAZOLE

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Laryngeal histoplasmosis is very rare among patients with AIDS, and a very few cases have so far been documented. We report a case of laryngeal histoplasmosis in an AIDS patient, mimicking epithelial neoplasia, which was successfully treated with oral fluconazole.
A 51 year old HIV positive homosexual male of Malaysian origin with CD4 lymphocyte count of 80/L, presented with hoarseness of voice of 5 months and skin lesions bilaterally on the face and neck. No systemic illness was noted. CT scan showed nodules in the larynx and throughout the lung fields. A laryngeal biopsy demonstrated histoplasmosis. At this stage histoplasma serology was equivocal. He was treated with fluconazole 200mg bd with a complete resolution of symptoms in 4 weeks time. He was commenced on HAART 2 weeks post initiation of treatment for histoplasmosis. His CD4 count rose to 224/μL after 4 weeks into HAART. The patient has now been switched to a maintenance dose of itraconazole 200mg od after 4 weeks of treatment with fluconazole, based on the evidence that lower relapse rate among patients on maintenance with oral itraconazole.

P1.1.21. SPECIES DISTRIBUTION OF ORAL CANDIDIASIS AND ITS RELATIONSHIP TO CD4+ T-LYMPHOCYTE COUNT IN HIV / AIDS PATIENTS IN INDONESIA

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Background
Oral candidiasis is the most common opportunistic infection, occurring in 80 to 95 % of HIV-positive patients, especially when the CD4+ count is low. Species distribution and its relationship to CD4+ count in Indonesia remains unknown.
Aim and methods
The aim of this study is to determine the species distribution and its relationship to CD4+ count. Thirty two oral candidiasis in HIV/AIDS patients were detected at Intermediate Care Unit for Infection Dr. Soetomo Hospital Surabaya. The diagnosis was established by clinical signs, wet mount, Cornmeal-Tween 80 agar, Carbohidrat Fermentation and Candida cultures in CHROM agar. Blood samples of each patient were collected for performing CD4+ count.
Results
All of 32 Candida cultures grew, there were 12 C. albicans species (35,29%), and 22 C. non-C.albicans species (64,71%): e.g. C. tropicalis: 10 cases (29,41%), C. dubliniensis: 5 cases (14,71%), C. glabrata: 5 cases (14,71%) and C.guilliermondii: 2 cases (5,88%). The average of CD4+ count is 95.143.4, the higest is 301 and the lowest is 3. There is no statistical correlation between species distribution and CD4+ count, but C. dubliniensis group have the lowest CD4+ count (54 89) and 80% from C. dubliniensis group have CD4+ count less than 100.
Conclusion
It was concluded that distribution of non-C.albicans species is higher than C. albicans species and C. dubliniensis group have the lowest CD4+ count. There was no statistical relation between species distribution and its relation with CD4+ count. Other factors such as HIV RNA viral load need to be researched.

P1.1.22. ANNUAL SCREENING OF HIV-INFECTED PATIENTS FOR NON-AIDS-RELATED MORBIDITY; AN EVIDENCE-BASED MODEL OF PRACTICE

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More than a decade after the introduction of HAART, patients diagnosed with HIV in resource-rich settings are living longer. We are seeing fewer AIDS-related events, but there has been an increase in morbidity and mortality due to cardiovascular disease, bone disease, renal failure, and neurocognitive decline. These conditions are seen at higher rates in HIV-infected individuals than in their age-matched HIV-uninfected peers, and this is likely due to a combination of both HIV itself and the antiretrovirals we prescribe to control the infection.

Untreated HIV causes generalised immune-activation and inflammation, and treatment interruptions are associated with increased rates of non-AIDS mortality and morbidity. However, HAART can also increase risk of non-AIDS events through effects on lipids and pro-thrombotic markers, bone biochemistry, insulin resistance, mitochondrial toxicity, and renal tubular damage. These effects can be specific to antiretroviral class or individual drugs.

In order to maximise the health of our HIV-infected patients, we have developed guidelines for the management of HIV as a chronic disease. Patients are invited to attend at least annually, via automatic electronic SMS reminder, to have a comprehensive review. The review includes the use of questions, biochemical parameters and physical examination. This enables us to identify and address modifiable risk factors early on, and to diagnose associated co-morbidities at an earlier more treatable stage. The review

also gives us the opportunity for education and health promotion. A pro-forma and evidence-based flow chart for use by both nurses and physicians has been developed for the patient file. This helps to ensure completeness of the screen, documentation and management of any abnormal results, co-morbidities and/or risk factors.

P1.1.23. KNOWLEDGE OF SEXUALLY TRANSMITTED INFECTIONS (STIs) AND SERVICE UTILIZATION PATTERN AMONG TRANSGENDER SEX WORKERS FROM TWO URBAN CENTERS IN PAKISTAN.

Naeem Hassan Saleem *- Canada-Pakistan HIV/AIDS Surveillance Project, AIDS Control Program.*

Background
AIDS Control Programs has established second generation surveillance system (SGS) with support of Canadian International Development Agency (CIDA) to track the course of HIV epidemic in Pakistan. Project is aimed to provide information of prevailing high risk behaviors, HIV prevalence and impact of services provided to vulnerable population through financial assistance of World Bank.
Methods
A series of two cross-sectional surveys were conducted from December 2006 and March 2008 in two major centers of largest province. Transgender Sex Workers (TSWs) were recruited by social mobilizers through network sampling technique. Behavioral questionnaire and dried blood spot specimen (DBS) for HIV testing were administered after taking informed consent. After the completion of interview a debriefing session provided basic information about HIV & STIs and available services for TSWs. All biological samples were screened by screening EIA (or ELISA). A total of 400 TSWs during first round and 401 TSWs during second round were interviewed. Results were shared with TSWs during knowledge transfer sessions.
Results
HIV prevalence has increased form 1/400 (0.3%) to 10/401 (2.5%) during the intervening period of fifteen months between two surveillance rounds. Knowledge of HIV prevention methods increased from 79% to 89%. Knowledge of STIs prevention methods remained unchanged i.e., 73% and 74%. Self reported STIs during the last six months increased from 5.5% to 8.5%. Only 1.3 during first surveillance round and 2% during second surveillance round received the treatment of STIs from medical practioner at service delivery. Statistically significant differences were noted between knowledge of STIs and treatment utilization ($P< 0.005$).
Conclusion
Data are indicative of improvement of Knowledge of HIV but has failed to improve STIs knowledge and service utilization among TSWs. Comprehensive package of existing services for TSWs must raise STIs knowledge among them and subsequent improvement in treatment seeking behavior as well.

P1.1.24. USE OF SCULPTRA(POLY-L- LACTIC ACID) INJECTIONS TO TREAT HIV-RELATED FACIAL ATROPHY IN ASIAN SKIN

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Introduction
The long-term requirements of HAART are associated with significant metabolic abnormalities involving lipid metabolism. Facial lipoatrophy contributes to lowered self-esteem, stigmatisation and depression, with decreased adherence to HAART and quality of life.
Poly-L-lactic acid (PLA) is a biocompatible, biodegradable and immunologically inactive filling product with a volume enhancing effect and subsequent fibroblast stimulation to increase collagen production resulting in dermal thickening. This study looked at the safety, efficacy and durability of Sculptra in an Asian HIV population in Singapore.
Methods
HIV positive individuals with severe facial lipoatrophy were enrolled into the study. PLA injections were administered over 4 sessions 4 weeks apart into the deep dermis in areas of lipoatrophy. Photographic assessments (both patient and physician) were made during all treatment sessions and 12, 24 and 52 weeks following the last treatment session.
Results
Six patients with severe HIV-related facial lipoatrophy were enrolled. The patients had been on antiretroviral therapy for a median duration of 7 years. The average duration of NRTI use prior to treatment was 6.8 years, NNRTI use was 3.4 years, PI use was 2.4 years. The average patient assessment of improvement in facial

lipoatrophy after 4 sets of PLA injections was 60% while the physician assessment was 68.8%. All patients were satisfied with the PLA injections in terms of improvement in facial appearance and durability.

Discussion

This study shows PLA injections to be safe, effective and lasting in the treatment of severe facial lipoatrophy in Asian skin. Previous studies have shown this benefit in Caucasian populations but this has not been reported in Asian populations. Hyaluronic acid implants and autologous fat transfer show a rapid decline in the degree of correction within 4-6 months of treatment resulting in patient dissatisfaction.

P1.1.25. MURUNDU: MALE CIRCUMCISION RITE & STIs/HIV AMONG THE VAREMBA OF ZIMBABWE

Tabona Shoko *- University of Zimbabwe.*

This paper seeks to explore the Murundu traditional rites, practiced by the Varemba people of the Shona-Karanga ethnic group in Zimbabwe. The rite is intended to remove a mature boy (mukomana) from the state of boyhood to that of man hood. It is also meant to initiate vashenji (uncircumcised non Varemba) men who get married to Varemba women into their male group traditions and customs. Whilst some people despise this rite as unhygenic, barbaric and causes health problems since it uses unsterilisied sharp objects and thus not acceptable for their health, the VaRemba people practice in good faith. Apart from health reasons, circumcision for the Varemba people, increases libido. This paper will explore the relationship of the Murundu ritual to some Jewish or Muslim practices that practice it for safe sex. It will attempt to address the problem of whether the rite can be adopted as means to protect one against contracting STIs/HIV/AIDS or not. The paper will argue that Murundu ritual plays a very important role for the VaRemba people and can be adopted as possible means of prevention of STIs/HIV/AIDS.

P1.1.26. INTRODUCTION OF VOLUNTARY TESTING AND COUNSELLING TO EXISTING PPT SERVICES IN THE CARLETONVILLE MINING AREA OF SOUTH AFRICA

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Introduction

South Africa, having experienced one of the fastest growing AIDS epidemics in the world, has an estimated 5.5 million people living with HIV/AIDS. In 2006, the average national HIV prevalence among women attending antenatal clinics was 29.1% (28.3 29.9). Less than 20% of South Africans requiring antiretrovirals are currently receiving treatment.

Objectives

The aims of the study were to determine the uptake of a new HIV voluntary counselling and testing (VCT) service by woman at high risk (WAHR) attending PPT services, assess HIV seroprevalence among WAHR and determine the proportion of WAHR requiring immediate access to antiretroviral (ARV) drugs.

Methods

WAHR attending periodic presumptive treatment mobile services in Carletonville were recruited to an STI/HIV screening project during 2006. HIV VCT was offered to WAHR and serostatus was determined by an on-site rapid test. Provisional HIV positive results were confirmed using a second rapid test. Same day CD4 and HIV viral load (VL) tests were performed for HIV-infected women. HIV seropositive WAHR were referred for wellness and antiretroviral therapy programmes.

Results

Among 1184 WAHR recruited, 92% (1094/1184) requested STI screening and 83% (984/1184) requested HIV screening. The prevalence of HIV infection was 59% (579/984). CD4 counts were: >500, 33% (183/556); 200-499, 48% (268/556); below 200, 19% (105/556). The distribution of VLs (in copies/ml) was as follows: 25% (141/562) had a VL >100,000, 41% (229/562) had VLs from 10,000-99,999, 26% (148/562) had VLs from 400-9,999, and 7% (44/562) had undetectable VLs (<400).

Conclusions

Given that many of these WAHR are sex workers, the willingness to test for HIV was encouraging. The observation that many had high VLs is a public health concern.

P1.1.27. QUALITY CONTROL AND PERFORMANCE OF HIV RAPID TESTING IN A MICROBICIDE CLINICAL TRIAL IN RURAL KWAZULU-NATAL

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Background
The Africa Centre is one of six sites participating in the Microbicides Development Programme clinical trial evaluating PRO2000/5 microbicide. Study volunteers were tested for HIV using two rapid tests in parallel, Abbott DetermineTM and Uni-GoldTM Recombigen HIV. A Uni-Gold Recombigen HIV control kit is available in conjunction with the Uni-Gold rapid test. The Determine test does not have a dedicated control kit. In this study we evaluate the Uni-Gold control kit on Determine rapid tests in order to support its use in other clinical trials. We also assess the performance of Uni-Gold rapids in this high prevalence area.
Method
Data was obtained from quality control (QC) test result logs completed between March 2006 and December 2008. Clinic staff performed daily QC using the Uni-Gold control kit for both rapid tests. External quality assessment (QA) was conducted regularly on both rapid tests. A random 5% of all HIV rapid tests performed on participants and all positive samples on either test had a confirmatory conventional qualitative ELISA.
Results
Of the 3,728 QC tests conducted, 1,795 (48%) were performed on Determine. The Uni-Gold positive and negative control serum gave the expected results for both assays. A score of 99.98% was obtained on the external QA proficiency panels (n=108). 96.92% of the random specimens sent for lab QC (n=260) were confirmed on ELISA. Up to April 2009, 11,516 HIV rapid tests were performed on trial volunteers. Both tests showed 3 false-negative results when tested against each other and confirmed on ELISA with a sensitivity of 99.47%. Uni-Gold had 3 false-positive results with specificity of 99.94%, Determine 11 false-positive results with specificity of 99.78%.
Conclusion
This analysis suggests that the Uni-GoldTM Recombigen HIV control is an efficient QC kit to validate both Uni-Gold and Determine rapid tests. Overall, both Determine and Uni-Gold performed proficiently.

P1.2.1. nvCT IN A HIGH PREVALENCE COUNTY IN SWEDEN. HOW COULD IT HAPPEN?

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Background
The visible decrease in Chlamydia trachomatis infections in Sweden turned out to be the occurrence of a new genetic variant of Chlamyda, nvCT. A deletion in the cryptic plasmid, the target site for most common NAATs used in Sweden, had occurred.The highest incidense of nvCT was in Dalarna, a county in northern Sweden.
Following urgent questions will be discussed
When did the mutation occur? Clinical manifestation? Treatment? Contagiousity? Comparison of epidemiology of the two variants till october 2009 wil be presented.
Result
No significant difference was found between the two variants concerning treatment, clinical manifestations or contagiousity. Risky behaviour in these populations and possible reasons of higher prevalence for nvCT will be presented and discussed.

P1.2.2. AETIOLOGY OF GENITAL DISCHARGE DISEASE AND ANTIMICROBIAL SUSCEPTIBILITY PROFILE OF N.GONORRHOEAE ISOLATED FROM PATIENTS IN MAPUTO, MOZAMBIQUE

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Aim
To ascertain the prevalence of the aetiological agents of genital discharge and ulcer diseases in Maputo, Mozambique.
Methods & Design
A cross-sectional study design was employed. Consecutive patients presenting to the Centro de Saúde do Porto in Maputo between March 15, 2005 and April 30, 2005 with genital discharge syndrome and / or genital ulcer diseases were recruited.
Results
Cases of male urethritis syndrome, female discharge syndrome and genital ulcer diseases were 116; 154; and 76 respectively. The prevalence of the aetiological agents for male urethritis were: Neisseria gonorrhoeae 36%, Chlamydia trachomatis 15%, Mycoplama genitalium 6%; for female discharge: Neisseria gonorrhoeae 12%, Chlamydia trachomatis 11%, bacterial vaginosis 43%, Trichomonas vaginalis 12%; and for genital ulcers: Herpes simplex virus type 2: 61%, Haemophilus ducreyi 4 %, Chlamydia trachomatis biovar LGV 4%. Treponema pallidum and Calymatobacterium granulomatis were not detected from any of the patients. From all tested patients, 29% were HIV-1 positive.
Conclusion
The study highlights the need for ongoing and broader surveillance programs. It is potentially useful in informing current syndromic management protocols.

P1.2.3. SEXUALLY TRANSMITTED INFECTIONS IN SEXUALLY ABUSED CHILDREN AND ADOLESCENTS IN U.C.H.IBADAN

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Objectives
Sexual assault is a violent crime that affects men, women, and children of all ages. Sexually transmitted infections (STIs) may be transmitted during sexual assault. This study was aimed at finding the prevalence of sexually transmitted infections in potentially sexually abused children and adolescent in Ibadan .

Methodology
This is a descriptive cross-sectional survey of Children and adolescents referred for possible evaluation of sexual abuse at Special Treatment Clinic, University College Hospital , Ibadan between January 2006 and December 2008. Urethral, Endocervical and high vaginal swabs were collected to establish diagnosis after clinical examination and informed consent.
Results
There were 16 children and adolescents with a mean age of 9.84 years (SD= 6.15; range 2-18 years). The male to female ratio was 1:7. Five (31.3%) had physical evidence of sexual assault at presentation, 4 (25.0%) of which had hyperemic labia and one had torn hymen. 12(75.0%) presented with vaginal discharge syndrome. About 75 % (12) had various STIs. The most common STI diagnosed was genital warts (25.0%). Other STIs diagnosed were vaginal candidiasis (18.8%), bacterial vaginosis (12.5%) and HIV (6.3%). There was no statistical significance between HIV infection and other STIs ($P > 0.05$).

Conclusion
Our study revealed high prevalence of sexually transmitted infections among the sexually abused children and adolescents. Screening for infection should be mandatory in presumed sexually abused girls with vaginal discharge and ideally should be undertaken in all children presenting at STI clinics for evaluation of sexual abuse.

P1.2.4. SURVEILLANCE OF ANTIMICROBIAL RESISTANCE IN NEISSERIA GONORRHOEAE IN INDIA.

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Background and Objectives
Gonorrhoea is one of the most prevalent STD in India. Emergence of antimicrobial resistance in Neisseria gonorrhoeae is a major obstacle in its control, hence the importance of surveillance of drug resistance. The study was undertaken to monitor the antimicrobial resistance in N. gonorrhoeae during 2007-2008 and to compare the data with those from previous years i.e. 1996 t0 2006.
Methods
In the year 2007-2008, 90 strains and during 1996 to 2006, 815 strains were isolated from patients of acute gonococcal urethritis and cervicitis. Antimicrobial susceptibility testing was carried out by Calibrated Dichotomous Sensitivity test using low concentration antibiotic discs of penicillin (0.5 IU), tetracycline (10g), ciprofloxacin (1g), ceftriaxone (0.5g) and spectinomycin (100g). MICs were determined by E test (A B Biodisks). β lactamase production was detected by the chromogenic cephalosporin method. WHO strains A-E, G, L, O, Q and K were used as control.
Results
Multi-drug resistant (MDR) strains increased significantly from 1.3% in 1996 to 40% in 2007-2008. A rising trend was observed in the isolation of TRNG, PPNG & high level resistance (HLR) to ciprofloxacin (MIC≥ 4g/ml) from 1.7% in 1996 to 19.3% in 2008, from 3.4% to 35.1% and from 0.4% to 27.8% respectively. Only one strain (1.1%) was found to be less sensitive to ceftriaxone in 2007-2008 in comparison to 9 (2.4%) from 2002 to 2006. All the strains were found to be sensitive to spectinomycin as in the previous years except one strain in 2002.
Conclusion
The study concludes that there is an alarming rise of MDR, HLR N.gonorrhoeae isolates in a major STD centre in India. Emergence of ceftriaxone less sensitive strains is also supported by similar observations from other countries. The results indicate the necessity of continuous surveillance of antimicrobial resistance patterns for changing antibiotic policy guidelines.

P1.2.5. PREVALENCE OF STIS AMONG WOMENS COMPLAINING FOR VAGINAL DISCHARGE AND LOWER ABDOMINAL PAIN IN MOROCCO

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Rationale
On 2007, the MOH in Morocco conduct a study on the prevalence of STIs among womens, to update the aetiology of these syndromes and update the algorithm for clinical management of vaginal discharges (VD) and lower abdominal pain (LAP).
Methods
A sample of 1268 womens complaining for VD and/or LAP including 141 sex workers was recruited in basic health services and NGOs. A questionnaire was administered followed by physical/pelvic examination; genital, blood and urine samples were collected. Samples were analysed by PCR to detect Neisseiria Gonorrhoea and Chlamydia Trachomatis and the HIV status was determined for all the patients.

Results
At least one RTI was found in 55% of women, whereby 52.8% are vaginal infection among which 5.8% caused by Trichomonas Vaginalis, and 8.3% harbouring a cervical infection among which 1.8% are caused by Neisseiria gonorrhoea and 7.3% by Chlamydia Trachomatis. The serology of HIV is positive in 0.2%. Regarding the sex workers, 14.9% presents an infection caused by Trichomonas Vaginalis, 22.7% a cervical infection and 1.5 % are HIV positives. The clinical signs analysis shows a significant association between vaginal infection and the average or plentiful, yellow greenish and malodorous discharges (p=0.01), also between the cervical infection and the moderate lower abdominal pain or rebound tenderness at palpation or bimanual examination, the bleeding of the cervix and the cervical purulent discharges (p=0.025). Multivariate analysis shows a significant association between cervical infection and multiple sexual partners (p=0.05).
Discussion
The prevalence of the STIs among womens complaining for VD and LAP is moderated. However, there is an increase of proportion of Chlamydia trachomatis since a decade and the prevalence of STIs is higher among sex workers. The study shows the incapacity of the current VD/LAP algorithm in the clinical management of STIs, what made the clinical examination indispensable to build algorithms as recommended by the WHO.

P1.2.6. MANAGEMENT OF FIRST EPISODE UNCOMPLICATED GENITAL WARTS IN MALE PATIENTS ATTENDING A WALK IN GUM CLINIC IN LONDON STREAMLINING MANAGEMENT.

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Background
There is no gold standard treatment for first episode of uncomplicated genital warts. All methods have highly variable but significant recurrence rates (0%-93%). Warticon (Podophyllotoxin 0.5% lotion) and cryotherapy remain the standard first line treatments in most UK clinics. However cryotherapy frequently involves multiple clinic visits increasing costs.
Aim
To describe treatment of first episode of genital warts in our clinic. To determine the proportion of patients who could have been treated with Warticon therapy.
Methods
We performed a retrospective case note review of 100 consecutive patients from August 2008 with first episode of genital warts. Patients who were miscoded, had missing notes or perianal warts were excluded from analysis.
Results
Thus far of the 59 patients analysed mean age of the patients was 29yrs. 41(69%) received cryotherapy as their first line treatment and 15(25%) received warticon 2(3%) had both cryotherapy and warticon and 1(2%) patient was referred directly for laser treatment.
Of the patients who received cryotherapy 37(90%) were eligible for Warticon.
The median number of clinic visits for patients receiving cryotherapy was 2 and warticon was 1.
Only one patient given warticon as first line therapy then required cryotherapy within the 3 month treatment period.
14(24%) patients had documented resolution of genital warts, all of which were treated with cryotherapy.
6(10%) patients had persistent warts at the end of the episode and for 39(66%) patients there was no data.
Conclusion
Cryotherapy is the most commonly used first line treatment for penile warts in our clinic. Patients treated with cryotherapy required more clinic visits than those treated with warticon.
The majority of patients treated with cryotherapy were eligible for warticon as a first line treatment, potentially reducing patient appointments, thereby saving money for the clinic and benefitting the patient.

P1.2.7. STI SURVEILLANCE AMONG HIV POSITIVE PERSONS CONSULTING IN AIDS REFERENCE CENTERS IN BELGIUM REVEALS IMPORTANT PUBLIC HEALTH PROBLEM IN MEN WHO HAVE SEX WITH MEN (MSM)

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Objectives
Identifying specific STI problems among HIV positive persons.

Methods
New STI episodes are registered in 7 participating centers. STI included are Chlamydia, gonorrhoea, syphilis, Lymphogranuloma Venereum (LGV), hepatitis B (HBV) and acute homosexually acquired hepatitis C (HCV). This analysis concerns the data registered between the 1st of April 2007 and the 31th of March 2008.
Results: All 220 HIV positive patients registered with a new STI episode during this one year period were men. Concurrent STI were found in 32 men; in total 252 STI episodes were registered. Most patients are MSM (N=211; 96%) and are of Belgian nationality (N=188; 86%). The age group of 35 to 44 years is highest represented (N=91; 41%), followed by the age group of 45 to 54 years (27%) and of 25 to 34 years (24%). Most patients were aware of their HIV seropositivity since more than 3 months (N=185; 84%); 25 patients discovered HIV seropositivity at STI diagnosis and 10 patients received their HIV diagnosis less than 3 months before. Syphilis is most frequently diagnosed (N=158; 63%), followed by LGV (N=32; 13%). Chlamydia and gonorrhoea represent both 10% of all STI episodes. Eight cases of acute homosexually acquired HCV were registered and 5 cases of HBV. Half of syphilis episodes registered were considered as reinfections; these were significantly more frequent in patients known HIV positive since more than 3 months (57%) than in syphilis patients who discovered their HIV seropositivity at STI diagnosis (27%; p=0.0096).
Conclusions
New STI episodes were almost exclusively found among MSM. Most patients concern known HIV positive MSM who were followed up and counseled in these specialised centres. Nevertheless, they continued engaging in unprotected sex. Thus, intensive positive prevention is needed. Surveillance of LGV and HCV throughout Europe is recommended in order to press for public health response.

P1.2.8. CHLAMYDIA TRACHOMATIS SCREENING AMONG MEN ATTENDING STI CENTER OF DERMATOLOGICAL DIVISION OF UNIVERSITY IN TURIN, ITALY

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Chlamydia trachomatis (Ct) is the most frequently reported bacterial sexually transmitted infection in Europe. Since over 2/3 of chlamydial infection in women are asymptomatic, several screening programmes have been established to detect and treat women with undiagnosed infections and their partners and to minimalize severe complications. In the male population the symptoms can be mild, non-specific, or absent, therefore recently more attention was focused on Chlamydia infections in men. The goal of this study was to estimate the prevalence of Ct among men attending STI Center of Dermatological Division in Turin, Italy, to evaluate the most efficient screening programme for a STI Clinic, and to determine the correlation between some risk factors and Ct infection.
From May 2005 to May 2006, 1000 sexually active men between the age of 15 and 50 were screened for Ct at STI Center of the Dermatological Hospital in Turin. Male urethral swabs or urine samples were tested for Ct using Polymerase Chain Reaction (PCR). All the patients answered a specific questionnaire concerning sexual behaviour. Statistical analysis was performed using the X2 test; a p value of less than 0,05 was considered significant.
In our analysis the prevalence of Ct infection was found to be 7%. 23 out of 70 (32%) of infected individuals denied the usual urethritis symptoms and attended STI center for other reasons: 11/23: other STI, 10/23: STI risk behaviors, 2/23: partner affected. The prevalence in the asymptomatic population was 2.6%. A statistically significant correlation was found between positive Ct test and people from East Europe, age < 34 years, urethritis symptoms, >1 partner during past 6 months, > 5 lifetime sexual partner. High prevalence (7%) of Ct infection in STI center attenders, (of which 2,6% in asymptomatic cases) confirmed the utility of screening programme adopted in STI Centers of Piedmont Network.

P1.2.9. OPTIMIZATION, HARMONIZATION AND QUALITY ASSURANCE OF THE LABORATORY DIAGNOSIS OF SEXUALLY TRANSMITTED INFECTIONS IN EASTERN EUROPE

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Background
Sexually transmitted infections (STIs), excluding HIV, are not considered as major burden of public health in Eastern European countries and therefore are left aside, e.g. mainly no national strategies or programs exist, and laboratory diagnosis, patient management and epidemiological surveillance are suboptimal.
Initial goal: To optimize, harmonize and quality assure the laboratory diagnosis of STIs in the catchment countries.
Methods
Through participation in the multinational and multidisciplinary Eastern European Network for Sexual and Reproductive Health (EE SRH Network), presently including active representatives from 14 EE countries as well as international STI experts from EU countries and USA, to reach consensus on ideal performance and logistics for the laboratory diagnosis of STIs with further implementation and legalization of the materials elaborated on country level.
Results
Following consensus has been reached: sole use of microscopy for the diagnosis of N gonorrhoeae should be limited to the diagnosis of male symptomatic urethritis, and use of culture and NAATs have to be promoted; surveillance of antimicrobial resistance is crucial to establish. NAATs have to become the method of choice for the diagnosis of C trachomatis and M genitalium, and wider implemented for diagnosis of T vaginalis, syphilis and herpes infections. Serology for diagnosis of C trachomatis and T vaginalis infections has to be abolished. Wet smear microscopy is still recognized as a sufficient tool for the diagnosis of T vaginalis and bacterial vaginosis (BV). BV can also be diagnosed using a Gram-stained smear. NAATs that are not internationally acknowledged, should be validated against the international standard assays. International and nationally adjusted guidelines have been produced and published (English and respective national languages).
Conclusion
Adoption of internationally acknowledged, evidence-based standards will allow countries improvement of their medical care standards. Since its formation, the EE SRH Network has been effective in facilitating this process.

P1.2.10. RAPID DECLINE IN PRESENTATIONS FOR GENITAL WARTS AFTER THE IMPLEMENTATION OF A NATIONAL QUADRIVALENT HUMAN PAPILLOMAVIRUS VACCINATION PROGRAM FOR YOUNG WOMEN

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Objective
Our aim was to determine if the Australian human papillomavirus (HPV) vaccination program has had a population impact on presentations of genital warts.
Methods
Retrospective study comparing the proportion of new clients with genital warts attending Melbourne Sexual Health Centre (MSHC) from January 2004 to December 2008. Australia provided free quadrivalent HPV vaccine to 12-18 year old girls in a school-based program from April 2007, and to women 26 years through general practices from July 2007.
Results
36,055 new clients attended MSHC between 2004-2008 and genital warts were diagnosed in 3,826 (10.6%; 95% CI: 10.3-10.9). The proportion of women <28 years with warts diagnosed decreased by 25.1% (95% confidence interval (CI) 30.5%,19.3%) per quarter in 2008. Comparing this to a negligible increase of 1.8% (95% CI 0.2%,3.4%) per quarter from the start of 2004 to the end of 2007 also in women < 28 years generates strong evidence of a difference in these two trends ($p < 0.001$). There was no evidence of a difference in trend for the quarterly proportions before and after the end of 2007 for any other subgroup, and on only one occasion was there strong evidence of a trend different to zero, for heterosexual men in 2008 where the average quarterly change was a decrease of 5% (95% CI (0.5%,9.4%), $p = 0.031$).

Conclusions
Our data suggest a rapid and marked reduction in the incidence of genital warts among vaccinated women may be achievable through an HPV vaccination program targeting women, and supports some benefit being conferred to heterosexual men.

P1.2.11. COMPUTER REMINDERS FOR CHLAMYDIA SCREENING IN GENERAL PRACTICE: A RANDOMISED CONTROLLED TRIAL

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The objective of this trial is determine whether a computer alert can prompt general practitioners (GPs) to increase chlamydia testing in young women.
General practice clinics (n=68) were cluster randomised to have either a computer alert inserted into their medical records software or no intervention. The alert was programmed to appear whenever a 16 to 24 year old woman consulted a GP, advising the GP to discuss chlamydia testing. All clinicians received a chlamydia educational package. The numbers of individual 16 to 24 year old females women tested for chlamydia and consulted by each GP were collected for two12 month periods - prior to the trial and during the trial. A mixed effects logistic regression model to adjust for differences in rates of testing between clinics, GP gender and patient age was used to assess the interventions impact.
The pre-trial chlamydia testing rate across all GPs was 8.3% per year and rates increased significantly in both groups from 8.0% to 11.9% in the intervention group ($p<0.01$) and 8.7% to 10.7% in the control group ($p<0.01$). After adjustment, the intervention group had a 32% (OR= 1.3 95%CI: 1.2, 1.5) greater increase in chlamydia testing rates. Female GPs tested more than their male colleagues (OR: 5.1 95%CI: 4.6, 5.6) and older women (20 to 24 years old) were more likely to be tested than the younger group (16 to 19 year olds) (OR: 1.6 CI: 1.5, 1.8).
A computer alert in to remind GPs to test young women for chlamydia is beneficial in increasing chlamydia test rates. However, other interventions will be needed to increase chlamydia testing rates to levels sufficient enough to have any impact on chlamydia transmission in the population.

P1.2.12. CHARACTERIZATION OF VAGINAL FLORA BY GRAM STAINED SMEARS: EFFICIENCY OF CLASSIFICATION CRITERIA FOR INTERMEDIATE FLORA

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Background
Association between Intermediate vaginal flora late miscarriage and preterm delivery is increasingly demonstrated, while few assessment studies of grading criteria are available.
Objectives
This study therefore aims to assess efficacy of different grading criteria, to recognize intermediate flora.
Methods
Vaginal secretions were obtained from 933 non-pregnant women with vaginal discharge. Vaginal smears were Gram stained. Two independent evaluators scored vaginal flora using Ison and Hay and Verhelst grade with Nugent score as gold standard. Results: Prevalence of vaginal smears with intermediate flora was 31.7% for Nugent score, 15.4% for Ison and Hay grade and 10.3% for Verhelst grade. Compare to the Nugent score, sensitivity and specificity of Ison and Hay grade for intermediate flora, were 10.5% and 82.3% and sensitivity and specificity of Verhelst criteria 14.9% and 100 %, the Kappa value were 0.10 and 0.23. Sensitivity and specificity of Ison and Hay grade for bacterial vaginosis were 85.9% and 55.8% and sensitivity and specificity of Verhelst criteria were 89% et de 64.2%, the Kappa value were 0.60 and 0.65. Sensitivity and specificity of Ison and Hay grade for normal flora were 58.3% and 96.9%. Sensitivity and specificity of Verhelst criteria were 82.9% and 82.4%, the Kappa value were 0.70 and 0.70.

Conclusion
Vaginal flora grading criteria showed inadequate performance for intermediate flora detection but not for bacterial vaginosis. There is an urgent need to develop a standardized method of Gram-stained interpretation for intermediate flora.

P1.2.13. GENOTYPING OF NEISSERIA GONORRHOEAE ISOLATES IN SYDNEY, AUSTRALIA

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Gonorrhoeae caused by an obligate human pathogen Neisseria gonorrhoeae (N. gonorrhoeae) is the second most common notifiable disease in Australia. Molecular typing of N. gonorrhoeae combined with epidemiological data provides a tool for analysis of sexual networks. In this study we aimed to identify sexual networks using a molecular based approach. Consecutive isolates (n= 249) of N. gonorrhoeae from patients presenting at the Sydney Sexual Health Centre were characterized using a highly discriminatory typing method NG-MAST. All isolates were assigned a sequence type (ST) on the basis of the sequences of internal fragments of the two highly polymorphic loci, por and tbp B. These sequence types were matched to epidemiological data. Among the 249 N. gonorrhoeae isolates, 72 different STs were identified and 29 (40%) of these STs had not been previously reported. ST 225 (n= 60), ST 210 (n=39), ST 40 (n=21) and ST 1419 (n= 11) were the most prevalent. NG-MAST sequence analysis proved to be a useful discriminatory tool for molecular analysis of the epidemiology of gonorrhoeae. NG-MAST strain characterization method used in this study identified localized transmission networks and suggested bridging between networks of men who have sex with men and heterosexual networks in the community.

P1.2.14. PARTICULARITIES OF BACTERIAL VAGINOSIS IN DAKAR (SENEGAL)

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Objectives
To point-out the importance of bacterial vaginosis (BV) in genital infections and to determine epidemiological, clinical and paraclinical factors linked to BV in Dakar. Method: 23067 females patients enrolled in this study (2002-2008) were interviewed prior to the vaginal fluid collections. Prior to microscopic examination, both genital area and fluids were observed macroscopically. Cultures were performed for bacterial and fungal microorganisms. BV diagnosis was based on the presence of clue cells, pH > 4.5, and absence of Lactobacilli and/or sniff test positive. Statistical analysis was done by chi2 test and the Odds ratio. Results: Among 23067 females, 8594 had BV (37.3%), 7520 had Candida, 1138 Trichomonas vaginalis infection and only 14 were with gonorrhea. We found more BV from females aged from 20-29 than those aged from 30-39. But Odds ratio shows that BV is more linked to females aged from 30-39. BV is more found in married women than in celibate. BV rate increase with number of pregnancies. In most of cases, genital area was normal. 35.7% cervix were found in association with BV. 39.8% of inflammatory reaction were linked to BV. In 23.1% of BV Gardnerella vaginalis was associated with Mobilluncus. Vagina flora was type III or IV in 99.2% of cases.
Discussion
The rate observed is slightly high even though these are lower than previous results in Dakar. At physical examination, the criteria held was the exocervicix inflammatory. Many authors found the relationship between pelvis inflammatory and BV. We didnt observe any genital ulcer associated to BV; but these have been described to HIV seropositives with G. vaginalis as etiological agent. Microscopically, the absence of Lactobacilli and a vaginal pH > 4.5 increase the transmission of HIV. Conclusion: In Dakar, BV belongs to the major genital infections and its management must be effective in Gynecologic and Obstetric services and also in National Campaign against AIDS since it eases the transmission of HIV.

P1.2.15. EVALUATION OF GARDNERELLA VAGINALIS, ATOPOBIUM VAGINAE ROLE IN VAGINAL MICROFLORA ALTERATION IN PREGNANT WOMEN BY REAL-TIME PCR.

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Healthy vaginal microflora is a finely balanced ecosystem where dominating Lactoflora prevents anaerobic microorganisms from reproduction, which means that Lactoflora decrease in reference to bacterial flora might be a major marker of vaginal biocenosis alteration.

Objective

The aim of this study was to reveal the occurrence of G.vaginalis, A. vaginae and their role in vaginal biocenosis alteration in pregnant women.

Methods

Vaginal samples from 280 women in various trimesters of pregnancy were analyzed by quantitive real-time PCR for G.vaginalis, A.vaginae, Lactobacillus spp and bacterial flora. Decrease of Lactobacillus spp concentration was evaluated in reference to bacterial flora.

Results

G.vaginalis was revealed in 111(39.6%) women (in 29(10.4%) concentration≥10^6geq/ml), 4(1.4%) showed association of high concentration of G.vaginalis with decrease of Lactobacillus spp concentration for more than 2 logs and BV signs (microscopic and microbiological). A.vaginae was revealed in 87 (31.1%) women (in 25(8.9%) concentration ≥10^6geq/ml), 6(2.1%) showed association of high concentration of A.vaginae with decrease of Lactobacillus spp concentration for more than 2 logs and BV signs (microscopic and microbiological). Lactobacillus spp concentration decrease was found in 12(4.2%) women totally, in 6(2.1%) G.vaginalis , A.vaginae- associated. In 253(90.3%) women no decrease of Lactobacillus spp concentration was observed.

Conclusions

A.vaginae is half as much frequent as G.vaginalis associated with decrease of Lactobacillus spp concentration; if both microorganisms are present, A.vaginae appears in higher concentrarion. In 50% women decrease of Lactobacillus spp concentration is not associated with G.vaginalis and A.vaginae.

P1.2.16. THE PROBABILITY OF VERTICAL TRANSMISSION OF GENITAL MYCOPLASMAS (UREAPLASMA PARVUM, UREAPLASMA UREALYTICUM, MYCOPLASMA HOMINIS, MYCOPLASMA GENITALIUM) AND THEIR ROLE IN THE NEONATAL PATHOLOGY DEVELOPMENT.

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The significance of genital mycoplasmas is overestimated at the moment in Russian medical care. Detection of these microorganisms in pregnant women or neonates is often supposed to be an indication for antibiotic therapy assignment. Their actual role is still unspecified.

Objective

The aim of this study was to investigate the probability of vertical transmission of genital mycoplasmas and their role in the neonatal pathology development.

Methods

Samples of urine and gullet swabs of neonates born to women carrying genital mycoplasmas, were analyzed by real-time PCR for genital mycoplasmas. Total amount: 60 infants born to 56 mothers asymptomatic carriers of genital mycoplasmas.

Results

U.parvum was revealed in 39(69.6%) women- carriers of genital mycoplasmas (in 29(51.8%) concentration ≥ 10^4geq/ml). U.urealyticum was revealed in 18(32.1%) women (in 6(10.7%) concentration ≥10^4geq/ml). M.hominis was revealed in 8(14.3%)women(in 2(3.6%) concentration ≥10^4geq/ml). M.genitalium was not revealed. Frequency of vertical transmission for U.parvum, U.urealyticum and M.hominis was 7.7%,16.6% and 0% respectively. One out if four children positive for U.parvum developed congenital pneumonia. Six out of 51 neonates negative for genital mycoplasmas developed following conditions: fetal growth retardation(3), congenital pneumonia due to viral agent (1),congenital pneumonia,unspecified(2), congenital infectious disease,unspecified.

Conclusions

Despite of high prevalence of genital mycoplasmas in pregnant women frequency of vertical transmission varies greatly (0%-16.6%); frequency of complication development does not distinguish credibly in neonates positive and negative for genital mycoplasmas. Frequency of vertical transmission for U.urealyticum is 2.2-fold higher than for U. parvum. U.urealyticum did not influence the development of infectious pathology in neonates in this study.

P1.2.17. THE ROLE OF GENITAL MICOPLASMAS (MYCOPLASMA GENITALIUM, MYCOPLASMA HOMINIS, UREAPLASMA UREALYTICUM, UREAPLASMA PARVUM) IN COMPLICATION DEVELOPMENT DURING PREGNANCY AND EARLY NEONATAL PERIOD.

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Objective

Definition of etiological value of genital mycoplasmas in adverse pregnancy outcome development and perinatal pathologies.

Methods

Cervical and vaginal samples from 235 pregnant women were examined for genital mycoplasmas, potentially pathogenic aerobic and anaerobic microorganisms, T.vaginalis.,N.gonorrhoeae, C.trachomatis using PCR and microbiological methods .

Results

Lactobacillus spp. solely were revealed in 35(16,5%) pregnant women. In 52(22,3%) cases vulvovaginal and cervical infections (bacterial vaginosis-13%, vaginal candidosis-8,1%, chlamidial cervicitis-1,3%, gonorrhea0, trichomonas-0) were diagnosed. Asymptomatic bacterial carriage (genital mycoplasmas, Streptococcus agalactiae, Enterobacteriaceae, etc.) were revealed in 144(61,2%) cases. Genital mycoplasmas were allocated from 106(45,2%) women (U.parvum-33,2%, U.urealyticum-8,9%, M.hominis-3%, M.genitalium-0). In the majority of cases (88(83%) patients), genital mycoplasmas were combined with other potentially pathogenic microorganisms (Streptococcus agalactiae, Enterobacteriaceae, Staphylococcus spp., G.vaginalis, C.albicans, etc.)-group-I. In 18(17%) patients genital mycoplasmas were presented as a monoculture-group-II. In group-I preterm labor was registered in 3(3,4%) cases, preterm rupture of membrans-9(10,2%). In group-II preterm labor was not registered, preterm rupture of membranes occurred in 1(5,5%) case. In pregnant women with normal biocenosis (Lactobacillus spp.) no preterm labor occured, preterm rupture of membranes-in 3(7,7%)cases. No postpartum period course complications were registered. Average newborn weight in group-I 2900g, in group-II 3100g, in patients with normal biocenosis3300g. Prenatal pneumonia developed only in group-I -4(4,5 %)(in group-II-0, pregnant women with normal biocenosis0), an intrauterine growth retardation in group-I-13(14,8%), in group-II-0, in the group with normal biocenosis - 3(8,6%). Our data confirms that asymptomatic bacterial carriage, bacterial vaginosis, vaginal candidosis deteriorate the gestation course and early neonatal period. True etiological value of Ureaplasmas and M.hominis is insignificant, because their allocation as a monoculture did not influence negatively the outcome of pregnancy, pospartum and early neonatal period.

P1.2.18. THE "CHLAMYDIAL" ESCAPE ROUTE FROM THE CELL DETERMINES CLINICAL PRESENTATION OF LGV

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Background
Keratinocytes are the first target of infection for lymphogranuloma venereum (LGV) Chlamydia trachomatis, yet they have been omitted from pathogenesis studies. We infect keratinocytes with C. trachomatis at 37 and 33°C and observe different growth and cytotoxicity profiles among the strains at these two temperatures.
Methods
HaCaT human keratinocytes were infected with C. trachomatis (multiplicity of infection (MOI) 0.25) serovars L2 and E, and incubated at 37 or 33°C for 48 hours. At various time points post infection, infected cells were visualised using transmission electron microscopy (TEM). HaCaT human keratinocytes were infected with C. trachomatis (MOI 0.025) serovars L1, L2, L3, E, and three L2 clinical isolates and incubated at 37 or 33°C for 5 days. Infected cell monolayers were analysed daily for inclusion size and numbers.
Results
In HaCaT cells at 37°C both L2 and E displayed the typical chlamydial growth cycle. At 33°C no L2 EB were detected in the inclusion at 48 hours post infection. Instead EB were identified in a non-membrane state in the cytoplasm of cells which contained an intact inclusion with RB only. In contrast, serovar E inclusions grown at either temperature, and serovar L2 inclusions grown at 37°C, contained EB at 48 hours post infection. L2 and L3 inclusions also reached a much larger maximum size than serovar E inclusions. This temperature dependent growth pattern could indicate varying mechanism of chlamydial exit from the host cell and explain the difference in clinical presentation. Ulceration may occur when there is a local inflammatory response causing the temperature in skin to rise and chlamydia to replicate rapidly and rupture their host cells, versus no ulceration when local temperatures at the site of infection remains low and mature EB are shed from the infected host cell by a method other than host cell lysis.
Conclusion
This study provides an explanation for the differences in clinical presentation of LGV.

P1.2.19. TRANSGENDER, STIs/ HIV AIDS, CULTURAL PRACTICES IN PAKISTAN

Fauzia Khan

Background
In 2004, a prevalence of 4% of HIV infection was identified among [1]MSM in Karachi while it was 2% in transgender. Objectives: To identify cultural practices amongst transgender/ transvestites that makes them vulnerable to STIs and HIV-AIDS.
Design
A qualitative study was conducted in Lahore city using FGDs and IDIs with transgenders to identify factors that lead them into commercial sex.
Results
Besides genetic tendency, a majority said they had a large number of sisters or were in co-education schools. This got them interested in wearing make up, jewelry and shiny female dresses from the childhood. They had great interest in dancing at marriages and parties, which was disapproved by the family. Rejected by parents and siblings they fell easy prey to physical and sexual abuse. They were also denied share in inheritance. Most of them were school or colleges dropouts because of mental and psychological abuse by class fellows. Disheartened, they joined the community of [2]Hijras, where they relate themselves and get love and affection from the [3]Gurus and his 2-8 [4]Chellas, who live like a family. Some sell sex but also have non paying permanent sex partners ([5]Giryas). Majority takes up singing, dancing and/or begging, dressed up as females. Their loyalty to their clan is unparallel. They are abused for anal sex in childhood; this later becomes a source of income and then a matter of habit. With no awareness on STIs, sex without condoms and use of drugs to enhance pleasure, the risk of STI and HIV transmission is greater.
Conclusions
Denial of basic human rights and rejection by the society and families with low self esteem, poor education and no skills to earn respectful livelihood; drug use and selling sex are the factors that make this population more vulnerable to STIs and HIV/AIDS.

P1.2.20. THE ROLE OF GONOCOCCI, CHLAMYDIA AND MYCOPLASMAS IN MALE INFERTILITY FOLLOWED BY EPIDIDYMITIS

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Objectives
nfertility is a serious complication of epididymitis caused by sexually transmitted infections (STIs). The aim of this study was to estimate the risk of gonococcal, chlamydial and mycoplasmal infections as the cause of epididymitis and mans factor of infertility.
Material and methods
In a retrospective study we analyze the microbiological data in 103 men (age 18-45, mean 24.3 years) with a history of acute epididymitis for 1-5 years before inclusion into our study. All these men were married, and in 63 out of 103 cases the couple was infertile according to WHO criteria. The Gram-stained microscopy for identification of N. gonorrhea, PCR for C. trachomatis and culture tests for Ureaplasma spp and Mycoplasma hominis (Mycoplasma DUO) were used.
Results
There were 79 cases of epididymitis caused by N. gonorrhoeae, C. trachomatis and Mycoplasmas (in 23, 27 and 29 epididymitis cases, respectively). Infertility was diagnosed in 54 out of these 79 cases (in 7, 19 and 18 after gonococcal, chlamydial and mycolasmal infections, respectively, Pearson chi-square = 8.782, p = 0.012). In the remaining 24 cases of epididymitis microorganisms were not identified, and in 9 out of these 24 cases infertility resulted after epididymitis (OR 1.82, 99% CI 0.90 3.7).
Conclusions
Epididymitis associated with STIs (N. gonorrhoeae, C. trachomatis and Mycoplasmas) more frequently resulted in infertility than epididymitis without identified microbial agents. Epididymitis that occurred after chlamydial and mycoplasmal infections was followed by infertility significantly more frequently than epididymitis that occurred after gonococcal infection.

P1.2.21. SYSTEMATIC REVIEW OF THE ASSOCIATION BETWEEN MALE CIRCUMCISION AND HUMAN PAPILLOMA VIRUS, GENITAL WARTS AND PENILE CANCER IN MALES

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Background
Three randomized controlled trials have shown that adult male circumcision provides partial protection against HIV infection. However there is less information of the benefits of male circumcision on other STIs and health outcomes. The aim of this work is to summarise the evidence on the effect of circumcision on Human Papilloma Virus (HPV), genital warts and penile cancer in men.
Methods
Electronic databases were searched for literature published prior to April 2009 using keywords and text terms for HPV, penile cancer and genital warts. Random effect meta-analysis was used to calculate a summary odds ratio and confidence interval for the association of circumcision with each outcome.
Results
The initial search identified 3034 articles. After reviewing all abstracts full text copies of 294 articles were reviewed. A total of 20 relevant articles on the impact of circumcision on HPV infection were identified. Sixteen of these studies contained information on the effect of circumcision on HPV prevalence (2 randomised controlled trials, 2 longitudinal observational studies, 11 cross-sectional and 1 case-control) and an adjusted OR was given for 10 studies. HPV infection was determined by PCR in 15 studies (hybrid capture was used for the remaining study) and circumcision status was determined by clinical exam in 11/ 14 studies that reported the method of ascertainment. Preliminary analysis using the best estimate of the treatment effect (adjusted OR where available, otherwise unadjusted OR) revealed a summary OR of 0.44 (95% CI 0.32, 0.57). Circumcision also provided a beneficial impact on high-risk HPV isotypes but the association was not as strong (summary OR 0.59, 95% CI 0.49, 0.71).
Conclusions
Initial analyses indicate a substantial impact of male circumcision in preventing HPV infection in men. Further analyses will include the impact on HPV clearance and progression, on genital warts, and invasive and non-invasive penile cancer.

P1.2.22. ORAL HPV-11 ANTIBODIES AND GENITAL HPV IN MEN

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Background
The association of oral HPV-11 IgA and IgG with genital HPV-11 infection in men with and without genital disease was investigated.
Methods
Men (239) were recruited from STIRC-operated mens sexual health clinic in Alexandra, Johannesburg. There were 112 men with genital warts (GW), 64 men with urethral discharge (MUS) and 63 men with no genital infection (normal). Penile samples were obtained with a dry Dacron swab and used for HPV DNA analysis by the Roche Linear Array Genotyping Test. Oral fluid (OF) was collected by OraSure device which collects oral mucosal transudate. HPV-11 antibodies were tested in oral fluid by capture enzyme-linked immunosorbent assay (ELISA) with HPV-11 virus-like particles.
Results
There were 25 (10.5%) penile samples inadequate for DNA analysis. The prevalence of HPV in men with GW was 100% with 96.3% harbouring HPV-11 or HPV-6. In men with MUS the prevalence of HPV was 48.2% (none with HPV-11) and in normal men 62% (22.6% with HPV-11). The magnitude of the OF HPV-11 IgA responses was higher than the IgG responses and highest for men with disease compared with normal men (IgA mean ELISA OD 0.56; IgG 0.12 compared with 0.38 and 0.09, respectively). More men with GW or MUS displayed OF HPV-11 IgG antibodies than normal men (P=0.004) but not for IgA (P=0.08). There was a similar prevalence of oral HPV-11 IgA responses from men with or without genital HPV-11 (32% and 43%; P=0.41) but more HPV-11 IgG in OF from men with genital HPV-11 infection (26% and 7.3%; P=0.0001).
Conclusion
Oral antibodies from mucosal transudate should reflect relative levels of serum IgA and IgG. Oral HPV-11 IgA of higher magnitude than IgG indicates active production of these antibodies in the mouth. Oral HPV-11 IgA not correlating with genital HPV-11 infection could indicate HPV-11 infection at another site.

P1.2.23. STD-SENTINEL SURVEILLANCE: RESULTS FROM GERMANY

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Objectives
The new Infection Protection Act was implemented in 2001 and only syphilis and HIV remained reportable STIs. To keep track of other STIs, a sentinel surveillance system was founded.
Methods
Since the end of 2002 local health authorities, specialized outpatient clinics and practitioners continually report examination and infection data, demographics and risk factors. Patients are asked to return questionnaires which are linked to doctors reports and provide further information about their sexual behaviour.
Results
Between January 2003 and March 2009, 595780 clients attended the sites, 6% (5173/85870) being positive for chlamydia, 3.7% (3129/85092) for gonorrhoea, 1.1% (3221/293634) for HIV, 3% (3115/101204) for syphilis and 2.5% (2019/79578) for trichomonas.
Among the total of 9453 STD patients 56% were men and the median age was 31 years, men being significantly older. Women were more often of foreign origin (67% vs. 26%, p<0.001), particularly from Eastern or Central Europe (39%). A total of 27% had a history of STIs. Doctors constituted in 66% of women sex work as the possible source of infection, in 65% of men homosexual contacts. 28% (474/1716) of all patients with syphilis were already HIV-positive. 14% (281/2.015) of all patients with gonorrhoea were chlamydia co-infected. 33% of patient questionnaires were returned. 60% of men reported casual partners as their perceived source of infection, 34% of women named regular partners and 33% customers. Since 2005, 32% of men and 39% of women who answered this question reported consistent condom use with casual partners, whereas 25% of men and 22% of women reported never using condoms with casual partners.

Conclusions
With the German sentinel surveillance system, STI-infection data of high-risk groups, such as MSM, sex workers and migrants can be monitored, however, data cannot be interpreted as STI rates in the general population.

P1.2.24. LOVE IN TIMES OF SOCCER WORLD CHAMPIONSHIPS EXPERIENCE FROM GERMANY

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Background
Preceding the soccer world championship between June 9 and July 9, 2006, debates were going on about increased sex work and legal restrictions considered. According to press reports, 40000 prostitutes came to Germany for the event. To evaluate any possible change in STD-rates, data from the German STD-sentinel surveillance system were analysed.
Methods
In the STD-sentinel selected health care providers voluntarily report infection data. Data analyses from sentinel sites in cities where games took place were performed and the reference period June-September 2006 was compared to this period in previous and following years.
Results
In 2006, 255 patients with STIs were diagnosed in sentinel institutions being significantly less than in previous years and not more than in subsequent years.
61% of STI patients were male, significantly more than in 2004.
Age didnt differ in men over time, whereas women with STIs were significantly younger in 2006 compared to 2004 and 2005.
In 2006, 60% of all STI-infected men came from Germany, significantly less than in 2003, 2005 and 2008. In 2006, 69% of women with STIs came from abroad, mostly from Central Europe (37%).
65% of women in 2006 had acquired their STI through sex work, compared to 51% in 2005 and 64% in 2007. In men, the most likely mode of transmission was MSM contact, 72%, 69% and 65% respectively. In 2006, the most common STI was chlamydia (33%), followed by gonorrhoea (30%) and HIV (25%). Infection rates with HIV were significantly higher than in 2003 and 2004 and gonorrhoea was higher than in all previous years respectively.
Conclusions
Data from STD-sentinel institutions, didnt prove changes in demography of patients or consistently higher STI infection rates during the soccer world championship, could however be biased through failure of accessibility of medical facilities for people at most risk.

P1.2.25. CHARACTERISTICS OF GENITAL ULCER PATIENTS IN SOUTH AFRICA 2006-2009

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Objectives
To determine the associations between age, gender and HIV serostatus with genital ulcer syndrome (GUS) aetiology among STI patients in South Africa.
Methods
Genital ulcer specimens were collected from consecutive consenting patients attending clinics in Johannesburg, Kimberley and Bloemfontein (2006-2009. A multiplex PCR assay detected the presence of Herpes simplex virus (HSV), Treponema pallidum (TP) and Haemophilus ducreyi (HD) in ulcer swabs; a

separate PCR was used to detect Chlamydia trachomatis L1-L3. Ulcer smears were stained to detect granuloma inguinale (GI). All participants provided sera for syphilis (RPR, TPPA), HSV-2 and HIV screening. Patients were offered on-site HIV testing and received GUS therapy. Fishers exact test was used in data analysis.

Results

Among the 388 GUS patients screened (249 men, 139 women), HSV was detected in 232 (59.8%) of cases, TP in 31 (8.0%) cases, HD in 5 (1.3%) cases and LGV in 4 (1.0%) cases. No GI cases were detected. There were 31 (8.2%) cases of primary HSV. Detection of genital herpes was associated with female gender (p = 0.0401). Although there was no association between primary herpes and gender, it was associated with a negative HIV serostatus among men (p = 0.0001) and with young age (<25 years) among women (p = 0.0485). Overall, 79.7% of women and 60.9% of men were HIV seropositive (p = 0.0002). Positive HIV serostatus was associated with being over 25 years old in both men (p = 0.0015) and women (p = 0.0005). The presence of herpes rather than bacterial ulcers was associated with a positive HIV serostatus (p = 0.0411).

Conclusions

Genital herpes accounts for the majority of genital ulcers and is associated with HIV co-infection. The prevalence of both genital herpes and HIV co-infection is higher in women. Primary herpes was associated with HIV seronegative men and younger females.

P1.2.26. PREVALENCE OF SYPHILIS AND HIV USING RAPID TEST IN WOMEN AT LABOR IN PUBLIC HOSPITALS IN VITRIA, ES

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Background

The early serologic testing in the pregnant women can prevent the vertical transmission of the HIV and syphilis infection.

Objectives: to describe the prevalence of syphilis and HIV among women at labor attending public hospitals in Vitria, ES.

Methods

From January to May pregnant women answered an interview with demographic, behavioral and clinical data. They performed rapid test, ELISA and indirect fluorescence assay (IFA) for HIV; and rapid test, VDRL e MHA-TP for syphilis diagnoses.

Results

A total of 1,380 women were included. Mean age was 24.2 (SD 6.1) years old and mean of schooling was 8.5 (SD 2.6) years. Prevalence rate of HIV was 0.6% (CI95% 0.2%-1.1%) and syphilis 0.4% (CI 95% 0.2%-0.9%). Risk factors reported were: previous STI (4.1%), blood transfusion (3.2%), injecting drug use (0.9%), no-injecting drugs (3.8%), more than one partners in the last year (10.7%) and commercial sex workers (0.3%). Rapid test for HIV was in agreement to ELISA e a IFA in all cases. Rapid test for syphilis was positive in six women, among them two were not confirmed by VDRL and MHA-TP. Of 71 (5.1%) women that did not report antenatal care, one had the rapid test positive for syphilis and two for HIV. A total of 10.3% of pregnant women did not have access to diagnostic tests results for HIV and syphilis during antenatal care. Among pregnant women who attended antenatal care, VDRL was positive in 14 (1.0%); 50% of their partners were tested for VDRL and 42.8% of them received treatment.

Conclusions

Results show the importance of rapid test at labor for diagnoses of syphilis and HIV because there are women without antenatal care or without access to tests results and treatment during antenatal care.

P1.2.27. PREVALENCE AND ANTIMICROBIAL SUSCEPTIBILITY OF NEISSERIA GONORRHOEA AMONG MEN PRESENTING WITH URETHRAL DISCHARGE IN KAMPALA, UGANDA.

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Introduction
Neisseria gonorrhoea (NG) remains a major sexually transmitted infection that is believed to be associated with increased risk of HIV transmission. It has shown an ever evolving pattern of increasing resistance to antimicrobial therapy. The current prevalence of NG infection and its antimicrobial susceptibility pattern in Uganda is largely unknown.
Objective
To determine the prevalence and antimicrobial susceptibility pattern of NG among men presenting with urethral discharge at selectected out-patient clinics in Uganda. Study design and setting: Descriptive cross-sectional study conducted at an STD clinic and Hospital-based out-patient clinic in Uganda between October 2007 and July 2008.
Method
A total of 216 males, aged 18 years and older with complaints of urethral discharge were consented and enrolled into the study. Questionnares were administered, urethral swabs were collected and cultured for NG, and HIV counseling and testing was offered.
Results
Of the 216 participants, 190 (88%) were from the STD clinic and 26 (12%) were from the Hospital-based out-patient clinic. A total of 119 (55%) of the 216 participants were culture positive for NG. Risk factors for gonorrhoea infection included age below 29 years, being married and being a civil servant. The isolates showed high rates of resistance to ciprofloxacin (31%) and to co-trimoxazole (83%). All isolates were susceptible to ceftriaxone and imipenem.
Conclusion
This study has revealed that NG is still a major cause of urethral discharge among males in Kampala and has demonstrated the emergence of high rates of quinolone resistance.

P1.2.28. OUR PREGNANT TEENAGERS WHO AND WHERE ARE THEY?

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Introduction
The UK Teenage Pregnancy Strategy is targeting a 50% reduction in teenage conceptions by 2010. Our local borough has shown the second largest reduction in London, the sixth largest nationally, yet teenage pregnancy remains a common event.
Methods
Retrospective analysis of all pregnant teenagers within our young peoples service during 2008.
Results
There were 48 pregnancies in 47 girls, of which 48% (23) were diagnosed at attendance, and 91.6% (44) were unplanned. A quarter (12), had conceived previously and 6.4% (3) had another child.
The mean cohort age was 17.9 years (13.819.9), with 8.5% (4) aged <16 years. Almost two thirds, (61.7%) were of Black or mixed ethnicity. The majority (68.1%) were in education, 12.8% employed, and 12.8% were neither. A third resided with both parents, 27.7% with a single parent/relative, 23.4% lived independently. The majority (91.4%) were in a regular relationship, with partners ages ranging from 13-30 years, (median 1.29 years older). Eight (17%) had had another partner in the previous three months. At screening, 31.9% (15) were diagnosed with sexually transmitted infections, one of whom had three.
At conception, 38.2% (18) were not using contraception, 51% (24) used condoms inconsistently. Twelve continued with their pregnancies. Of the 36 who were referred for termination of pregnancy (TOP), their

pregnancy was diagnosed between 3-16 weeks. Time from diagnosis to TOP referral varied widely (0.3 -11 weeks) as did their post TOP visit (2.1-44 weeks), when three-quarters returned (26). On review, only 57.7% (15) had started a method of contraception, but 8% (2) were not using anything.

Conclusion

This study highlights a need for targeted interventions in educational settings, better sexual health awareness within families and closer service networking ensuring that young women, post delivery or abortion, are prevented from further unwanted pregnancies due to swift provision of contraception.

P1.2.29. IMPROVING THE MANAGEMENT OF PATIENTS WITH CLINICAL PELVIC INFLAMMATORY DISEASE (PID) THROUGH AUDIT

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Early diagnosis and effective treatment of women presenting with PID is important in order to reduce the risk of the long term sequelae such as chronic pelvic pain, ectopic pregnancy and infertility. We present the results of an initial retrospective audit evaluating the management of these patients as well as a re-audit after agreeing minimum standards of care with all clinical staff based on the British Association of Sexual Health and HIV guidelines.

St Anns Sexual Health Centre is a busy inner city clinic in London. In audit period A (Jan-Dec 2007) 84 and in period B (Jan-Dec 2008), 83 women were diagnosed with PID. The median age was 26.5 vs 27 years. Symptoms they presented with were similar; the commonest being pelvic pain (90.5% vs 89%) and dyspareunia (62% vs 72%). Having a previous genital infection was commoner in period A; chlamydia (27% vs 19.2%), gonorrhoea (8.3% vs 3.4%) and previous PID (8.3% vs 4.6%). Previous trichomonas vaginalis (TV) was commoner in the latter period (2.3% vs 8%). Diagnosis was based on symptoms and signs such as cervical excitation and adnexal tenderness. Genital infections were diagnosed commonly; chlamydia (10.7% vs 9.6%), gonorrhoea (2.3% vs 2.4%), TV (0% vs 7.2%), BV (33.3% vs 19.2%) and Candida (13% vs 19.2%). Improvements in management between the 2 periods were seen in terms of better recording of patients having had a pregnancy and urine test, using recommended antibiotics (46% vs 73%) and partner notification (50% vs 84%). Forty-seven patients attended a 2 week follow up in period B and 83% had symptom resolution. Of the remaining 17% half had gynaecological pathology on subsequent scans.

Through audit we have improved the management of patients with PID. We now do regular staff updates to ensure consistent practice.

P1.2.30. VALIDATION OF ALGORITHM FOR CERVICITIS MANAGEMENT AMONG SEX WORKERS IN CAMBODIA

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Background

Since 1998 when the 100% condom use promotion strategy was initiated, brothel and non-brothel based sex workers (SWs) have been encouraged to visit STI clinics on a monthly basis regardless of any symptoms. Presumptive diagnosis of cervical infection caused by gonorrhoea or Chlamydia is based on an algorithm combining risk assessment for cervicitis and clinical signs including counting of white blood cells on a cervical smear. In 2006 a validation study was conducted to assess the performance of this algorithm.

Methods

A total of 1,325 female SWs who presented at STI clinics were recruited. Vaginal fluid was collected for wet mount and Gram stain examinations to detect vaginal infections. Cervical infections were diagnosed presumptively and treated based on the algorithm being evaluated. At the same time specimens of endocervical secretion were collected and sent to the Institute of Tropical Medicine of Antwerp, Belgium, for confirmation of gonococcal and/or chlamydia infection with Nucleic Acid Amplification Testing.

Results
Compared with the laboratory gold standard, the sensitivity of the risk assessment alone is 19/200 = 9.5% and the specificity is 966/1115 = 86.6%. When clinical signs and/or counting of white blood cells were considered suggestive of cervical infections, the sensitivity became 132/200 = 66% but the specificity decreased to 484/1107 = 43.7%. The algorithm combining the risk assessment, clinical signs and counting of white blood cells resulted in a sensitivity of 135/200 = 67.5% and a specificity of 479/1115 = 43%.
Conclusions
The current algorithm still misses 32.5% of cervical infections and treats needlessly 57% of uninfected women. As a simple algorithm cant be both sensitive and specific enough, we intend to focus on maximizing infection detection (i.e. sensitivity) the expense of specificity. Overtreatment is considered acceptable in a small population group of women who are highly exposed to cervical infection.

P1.2.31. COMPARISON OF THE EFFECT OF CHLAMYDIA TRACHOMATIS STRAINS (LYMPHOGRANULOMA VENEREUM (LGV) AND OCULAR GENITAL) IN/ON ENDOTHELIAL CELLS

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Aim
To compare the chemokine profiles of LGV (Serovars L1, L2 & L3) and ocular genital (Serovar E) Chlamydia trachomatis infected endothelial cells.
Method(s)
Human umbilical vein endothelial cells (HUVEC) were infected with C. trachomatis serovars 1, 2, 3 and E (MOI=1). Infection of endothelial cells by the serovars was verified by C. trachomatis culture confirmation test and viewed under a fluorescence microscope. Induction of chemokines, iterleukin-8 (IL-8) and monocyte chemotactic protein-1(MCP-1) production by these serovars was quantified in cell culture supernatants at 24h post infection using commercially available enzyme-linked immunosorbent assay (ELISA) kits (DIACLONE). Results were analysed using one way analysis of variance with Tukey's post test (Graphpad Instat).
Results
All C. trachomatis serovars successfully infected and replicated in HUVEC. Serovar L3 stimulated significantly higher production of IL-8 compared to other serovars. LI, L2 and E serovars failed to significantly induce the release of IL-8 from infected HUVEC.There was no induction of MCP-1 by all serovars.
Discussion/Conclusion
Only C. trachomatis serovar L3 induces release of IL-8 from human endothelial cells. This could be related to the differences in the major outer-membrane protein (MOMP) structure. This suggests that the L3 serovar initiates a more vigorous innate immune response.

P1.2.32. PRIMARY GENITAL HSV: HSV TYPES AND ASSOCIATIONS WITH GENDER, AGE AND OTHER ACUTE STIs

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Background
The number of cases of primary genital herpes due to HSV-1 is increasing. Some of these are acquired by oro-genital sex. Consequently, the rates of coinfection with other STIs may differ from primary herpes due to HSV-2.
Higher recurrent orolabial HSV lesions in winter months may affect the distribution of HSV-1 genital herpes throughout the year.
Methods
A retrospective survey of newly diagnosed primary HSV between 01/04/08 and 31/03/09 was performed. The types of HSV were determined by PCR. Any associations between gender, age, and presence of other acute STIs were looked for. Prevalence of primary HSV-1 and 2 infections were calculated throughout the year.

Results
462 patients diagnosed with primary HSV, 296 females and 166 males (female to male ratio 1.8:1). HSV-1 identified in 242 (52.4%) and HSV-2 in 220 (47.6%). Females were more likely than males to have HSV-1 (56% v 46%: OR 1.51 [95% CI 1.01-2.26] p= 0.042). Younger people were more likely to have HSV-1 than older people (<25 63% v 25+ 38%, OR 2.78 [95% CI 1.88-4.13] p= <0.0001). People with HSV-1 were less likely to have another acute STI at presentation (5% v 11%, OR 0.43 [95% CI 0.20-0.92] p= 0.03).
The highest prevalence of HSV-1 infection was in December. The highest prevalence of HSV-2 was September to December.
Conclusion
Primary genital herpes is more likely to be due to HSV-1 in younger females and most HSV-2 infection was seen in older males. There were fewer associated acute STIs with HSV-1 infection. The highest prevalence of HSV-1 was in the winter, but prevalence of HSV-2 was also higher in the autumn months.

P1.2.33. DIAGNOSTIC IMPLICATIONS OF 16S RIBOSOMAL ASSAY FOR GONORRHOEA

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There has been a significant change in the approach to the diagnosis of gonorrhoea in recent years. Traditional methods are being increasingly replaced by NAATs. It has been noted that it has proved difficult to develop a single NAAT that is both highly sensitive and highly specific, though tests are continuing to improve. Therefore, it has been suggested that a NAAT for N. gonorrhoeae be followed by a confirmatory assay before definitive reporting of the results and many have put forward 16S based assay for this purpose. This study has been undertaken to evaluate the performance of PCR based on 16S ribosomal gene and the results were compared with that of PCR targeting the porA pseudogene.
85 patients (73 female and 12 male) presenting to STD clinics of AIIMS & SJH, New Delhi, India, were included in the study. The endocervical and urethral swabs were plated on standard media and suspected isolates identified by standard methods. Standardization of PCR was followed by use in clinical samples.
The porA pseudogene based PCR was found to be highly specific amplifying DNA isolated from N. gonorrhoeae strains only while 16S based assay showed cross reactivity with commensal Neisseria sp. Out of the 73 female patients 16 were positive by 16S ribosomal PCR while only 6 were positive by porA pseudogene based PCR. None were positive by conventional methods. 5 out of 12 male patients were positive by 16S PCR whereas only 4 were positive by porA PCR (also positive by conventional methods). For female patients, the sensitivity, specificity, PPV and NPV of 16S ribosomal assay was 100%, 85%, 37.5% and 100% respectively while for male patients it was 100%, 88.9%, 80% and 100% respectively.
Our study supports the use of 16S ribosomal assay as only a screening assay for gonorrhoea.

P1.2.34. PREVALENCE AND ANTIMICROBIAL SUSCEPTIBILITY OF NEISSERIA GONORRHOEAE. AN UPDATE IN THAILAND

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The aims of this study were to survey the rate of Neisseria gonorrhoeae and Chlamydia trachomatis infections among HIV-positive patients in Thailand as well as the current status of antimicrobial resistance pattern of N. gonorrhoeae and the prevalenve of penicilinase-producing N. gonorrhoeae (PPNG) in Thailand. A total of 1,158 endocervical swabs from 824 HIV-positive patients were collected to detect both organisms by Gen-probe PACE 2 system. The prevalence of gonococcal and chlamydial infection was 1.3% and 9.7%, respectively. There were only three co-infected patients. The mean age of the HIV-positive patients with a positive result for N. gonorrhoeae and C. trachomatis was 26.5 7.6 and 30 9.5 years, respectively. We also investigated the antimicrobial susceptibility of other 122 gonococcal isolates by the disk diffusion method to penicillin, tetracycline, ciprofloxacin, ofloxacin, cefotaxime and ceftriaxone. None of the isolates was susceptible to penicillin and tetracycline. For fluoroquinolone, more than 90% of the isolates were resistant to

ciprofloxacin and ofloxacin. No gonococcal isolate with resistance to cefotaxime and ceftriaxone was detected. Among the 122 isolates, 83.6% or 102 isolates were penicillinase-producing N. gonorrhoeae (PPNG), in which most isolates (79.5%) showed PPNG plus tetracycline-resistant N. gonorrhoeae (TRNG) or the so called PPNG-TRNG isolates, and only 4.1% were PPNG alone. In this study, 10.7% of the 122 isolates were TRNG alone. All the 102 isolates which were PPNG contained blaTEM gene. In a preliminary molecular study, this is the first report of a PPNG isolate in Thailand producing beta-lactamase enzyme and containing the blaTEM gene which was identical to the beta-lactamase TEM protein of Salmonella enterica identified as TEM-135.

P1.2.35. HAVE TIMES CHANGED? AGE AND AETIOLOGY OF ACUTE EPIDIDYMITIS IN A UK SEXUAL HEALTH CLINIC.

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Background
National guidelines state that epididymitis in men under 35 years of age is most commonly caused by sexually transmitted infections (STIs) Chlamydia trachomatis or Neisseria gonorrhoeae. Guidelines therefore prioritise treatment of these STIs in younger patients (<35 years) but suggest treatments effective against uropathogens in older patients (>35 years.) This guidance is based on studies from more than 20 years ago. Patterns of sexual activity are changing and we question whether age remains a valid or useful discriminator when selecting treatment for men with epididymitis.
Methods
We reviewed the age distribution of cases of Gonococcal, Chlamydial and nonchlamydial/nongonococcal epididymitis in our UK sexual health clinic between 1997 and 2008. We compared trends in diagnoses locally and nationally. To verify diagnoses and audit management we retrospectively reviewed 108 recent cases.
Results
In our clinic, the average age of patients with Gonococcal or Chlamydial epididymitis was 26.7 years (n=463) and the average age of patients with nonchlamydial/nongonococcal epididymitis was 30.0 years (n=1830) P<0.001. However, ages were broadly distributed for both diagnoses.
Epididymitis diagnoses increased both locally and nationally 1997 to 2008 reflecting increased clinic activity and upward trends in all STI diagnoses.
In men <35 with epididymitis, an STI is more commonly diagnosed than in men >35 (P<0.001) However, in both age groups, the majority of cases of epididymitis are nonchlamydial/nongonococcal. (78% in <35s and 87% in >35s)
Case note audit revealed 65 cases (81%) of nonchlamydial/nongonococcal epididymitis. Two thirds had urine culture, only 2 revealed uropathogens (one probably acquired from anal intercourse.)
Conclusion
Epididymitis in men of all ages is most commonly nonchlamydial/nongonococcal.
Furthermore, STI associated epididymitis is not exclusive to the younger population. Decisions should therefore be guided by sexual history rather than age. Uropathogen epididymitis is rare in our clinic so treatment should encompass alternative aetiologies.

P1.2.36. COMPARISON OF SELF-TAKEN VULVO-VAGINAL SWABS (VVSS) VERSUS CLINICIAN TAKEN ENDOCERVICAL SWABS FOR THE DETECTION OF CHLAMYDIA WITHIN A CLINICAL SERVICE USING THE GEN-PROBE APTIMA COMBO 2 ASSAY

Catherine Stewart *- Leeds General Infirmary, UK. 2: Sarah Schoeman - Leeds General Infirmary, UK 3: Russell Booth - Leeds General Infirmary, UK 4: Susan Smith - Leeds General Infirmary, UK 5: Mark Wilcox - Leeds General Infirmary, UK 6: Janet Wilson - Leeds General infirmary, UK*

Background
Non-invasive methods of testing for Chlamydia trachomatis are extensively used in screening programmes. In women, self-taken VVSs are superior to urine testing and as accurate as tests obtained by a clinician from the urethra and cervix.
Our sexual health clinic recently switched to using Gen-Probe AC2 assay. Only one swab can be analysed per assay. We debated whether this should be a clinician-taken endocervical swab or a self-taken VVS. We therefore assess these two samples for the detection of chlamydia in symptomatic and asymptomatic women.

Methods
Women aged 16 and over, requesting testing for STIs and consenting to perform a self-taken VVS prior to routine examination were included.
Results
980 women are included in this analysis. Recruitment continues towards a target of 4000.
Mean age 24 years (range 16-59). 105/980 (10.7%) had chlamydia, 16 co-infected with gonorrhoea.
Women with chlamydia were significantly younger than those without (mean 22y versus 25y P<0.0001), were significantly more likely to have symptoms (P=0.03), have cervicitis (P<0.0001) and to have a clinical diagnosis of PID (P=0.01).
Clinician-taken endocervical swabs were positive in 93/105 (89%) and self-taken VVSs were positive in 95/105 cases (90%), (intention to test analysis no significant difference between the two samples). However, 8 of the VVSs were unable to be processed due to patient error in collection. The sensitivity of the processed VVSs was 95/97 (98%), significantly higher than the endocervical swabs (P=0.02).
In 2 cases the endocervical swab was positive but the VVS was negative (n=1) or indeterminate (n=1). In 12 cases the VVS was positive and the endocervical swab was negative (n=10) or indeterminate (n=2).
Conclusion
In a clinical service setting, self-taken VVSs are equivalent to clinician performed endocervical swabs. However, if errors in patient collection were reduced, VVSs would be more sensitive than clinician performed endocervical swabs.

P1.2.37. INTRODUCTION OF RAPID SYPHILIS TESTING WITHIN AN INTEGRATED PREVENTION OF MOTHER TO CHILD TRANSMISSION (PMTCT) OF HIV PROGRAM: A FIELD ACCEPTABILITY, FEASIBILITY, AND COST EFFECTIVENESS PILOT.

Susan Strasser *- Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), Zambia.*

Introduction
Syphilis is a major cause of perinatal morbidity in sub-Saharan Africa. In Zambia, prenatal syphilis screening is policy and is mandated as part of the basic antenatal care services. However, its large scale implementation has been limited due to various reasons, including inadequate facilities for cold storage of reagents, lack of electricity, equipment and trained staff. This has resulted in few facilities being able to perform syphilis testing. Rapid syphilis tests that are easy to use with minimal training, can be transported and stored at room temperature offer possibilities for increasing access to screening. EGPAF works in Zambia with local partners, including the Centre for Infectious Disease Control in Zambia (CIDRZ), to provide PMTCT services in over 270 sites. EGPAF is collaborating with the WHO/TDR STD Diagnostics Initiative (SDI) to assess possible improvement in the identification and treatment of pregnant women with syphilis and the cost-effectiveness of introducing rapid syphilis testing in PMTCT sites in Zambia.
Objectives
To determine the acceptability, feasibility and cost-effectiveness of integrating syphilis screening into PMTCT programs for HIV at select district facilities in Zambia.
Methods
Baseline surveys were carried out to collect data on the proportion of women screened and treated, and proportion of babies born to syphilis-infected mothers treated in the targeted health centers. Data will also be collected on the frequency of stock out for tests, drugs and other supplies. Health care workers will be trained to perform the test and provide Same-Day Testing and Treatment (STAT). Training will also be given on quality assurance and procurement and stock management to ensure reliable and consistent supply of tests, consumables and drugs. During the implementation, data will be collected for monitoring and evaluation and cost of the program. The final phase will be spent on data analysis and dissemination of results to stakeholders.
Results
The Zambian National PMTCT Integrated Guidelines includes specific mention of syphilis testing for pregnant women in ANC and describes Rapid Plasma Reagin (RPR) test as the standard diagnostic. However sites commonly report the inability to offer RPR syphilis testing for ANC clients due to insufficient infrastructure, supplies, equipment and training. The stock outs are most acute in remote areas where transport is hindered by heavy rains and poor roads, such as in Mongu. Within Lusaka, sites reach high numbers of women with high prevalence of syphilis. Yet despite high testing rates, treatment rates remain at about 62% because women must return for results. Syphilis prevalence varies by site. The overall syphilis prevalence among women aged 15-44 years was estimated at 5.0% among 24 antenatal sentinel sites.

P1.2.38. EFFICACY OF PARTNER NOTIFICATION FOR CHLAMYDIA TRACHOMATIS AMONG YOUNG ADULTS IN YOUTH HEALTH CENTRES IN UPPSALA COUNTY, SWEDEN.

Staffan P.E. Sylvan *- Sept. of Communicable Disease Control and Prevention. Johan Hedlund - Sept of Communicable Disease Control and Prevention*

Background
The study was conducted to define the contact-tracing success rate of the partner notification services routinely provided by the community-based youth health centres and the county medical officer for communicable disease control (CMO) in Uppsala County, Sweden.
Objective
The study had three goals, (i) to register the number of sexual partners routinely reported by each diagnosed index case with CT and the success rate in tracing and testing these partners for CT infection. (ii) To analyse the current notification practices in reporting the number of cases of unsuccessful contact tracing to the CMO. (iii) To determine the contact tracing success rate of the partner notification services provided by the CMO.
Methods
Each diagnosed case of CT is obliged by law to participate in the contact-tracing procedure performed by the physician managing the patient or by a specialised sexually transmitted infection (STI) adviser. Successful contact-tracing is defined as the confirmed attendance of a sexual contact within 12 months of the contact with the index case.
Results
The number of CT cases diagnosed by the youth health centres during the study period was 463 (299 females and 164 males). The females reported 660 male sexual contacts and the males reported 386 female contacts. Successful partner notification was achieved for 73% of all sexual contacts. 284 (190 females and 94 males) unsuccessful partner notifications were reported to the CMO of whom 98 (52%) of the female contacts and 20 (21%) of the male contacts were successfully notified by the CMO. However, for 134 (71 females and 63 males) partners, personal details given by the index case were insufficient for identification of the partner.
Conclusions
When asymptomatic, genital CT infection spreads among sexually active young adults with multiple, unidentified sexual partners, appropriate methods of partner notification are not sufficient to achieve its aims at the population level.

P1.2.39. THE CARBAPENEM ERTAPENEM HAS NO ENHANCED IN-VITRO EFFICACY FOR NEISSERIA GONORRHOEAE NON-SUSCEPTIBLE TO CEFTRIAXONE

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Introduction
Extended-spectrum cephalosporins (ESC) are currently the optimal treatment options for gonorrhoea. However the gonococcal susceptibility to ESC is decreasing worldwide with treatment failures using oral agents such as cefixime occurring, especially in Japan. Treatment failures of urogenital gonorrhoea using the parenteral ESC ceftriaxone are still lacking, although, this has been reported for pharyngeal gonorrhoea. Alternative treatments proposed include the carbapenem ertapenem, on the basis of in-vitro minimum inhibitory concentrations (MICs) comparisons with ceftriaxone in a limited sample of gonococci (Livermore et al. JAC. 2004).
Aim
To compare the MICs of ceftriaxone and ertapenem, in a broad sample of gonococci including those with raised MICs to ESC and a selection where the genetic resistance determinants to ESC have been characterised.

Methods
Ceftriaxone and ertapenem MICs of N. gonorrhoeae isolates from Sydney, Australia (n=207 sequential isolates) and Indonesia (n=165) lacking genetic characterisation, and selected strains from Sydney (n=111), Japan (n=5), and the current (2008) WHO reference strains (n=8) where penA, mtrR, porB, and ponA were sequenced, were compared.
Results
Gonococci with raised MICs for ceftriaxone had similar increases in ertapenem MICs. The alterations in penA (mosaic alleles or other, e.g. A501V substitution), mtrR, and porB, associated with reduced susceptibility to ESCs, seemed to have similar effects on both ceftriaxone and ertapenem MICs.
Conclusions
Ertapenem had no in-vitro advantage over ceftriaxone when a large sample of unselected and selected gonococci with a wide range of ceftriaxone MICs was examined by phenotypic and/or genetic resistance testing parameters. This parallel in MICs and genetic mechanisms suggests that strains non-susceptible to ceftriaxone will also be non-susceptible to ertapenem or have substantially increased MICs for this drug. Further knowledge regarding the genetic resistance mechanisms to both these antimicrobials are crucial, as well as better correlates between genetic and phenotypic laboratory parameters, and clinical treatment outcome.

P1.2.40. PHENOTYPIC AND GENETIC CHARACTERISATION OF BACTERIAL SEXUALLY TRANSMITTED INFECTIONS (STIs) AMONG WOMEN IN GUINEA-BISSAU, WEST AFRICA

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Introduction
Knowledge regarding characteristics, and transmission of Neisseria gonorrhoeae Chlamydia trachomatis, and Mycoplasma genitalium, and antibiotic resistance of N. gonorrhoeae in Guinea-Bissau is entirely lacking.
Aim
To characterise N. gonorrhoeae, C. trachomatis, and M. genitalium among females, attending two sexual health and family planning clinics in Bissau, to define the bacterial populations, investigate the possibility of transmission chains, and for N. gonorrhoeae, define the spread of resistant isolates.
Materials and Methods
N. gonorrhoeae isolates (n=31), and C. trachomatis (n=60) and M. genitalium (n=30) positive samples, were included. The N. gonorrhoeae isolates were characterised with antibiograms, serovar determination, and N gonorrhoeae multiantigen sequence typing (NG-MAST). The C. trachomatis omp1 gene and the M. genitalium MgPa adhesion gene were sequenced, and phylogenetic analyses were performed.
Results
For N. gonorrhoeae the levels of resistance (intermediate susceptibility) to ciprofloxacin, penicillin G, ampicillin, tetracycline, and cefuroxime were 10% (0%), 68% (19%), 68% (0%), 77% (23%), and 0% (84%), respectively. Sixty-eight percent were b-lactamase producing. All isolates were susceptible to cefixime, ceftriaxone, azithromycin, spectinomycin, erythromycin, kanamycin, and gentamicin. Serovar determination assigned 64.5% as serogroup WII/III (PorB1b), 35.5% as serogroup WI (PorB1a), and as totally seven different serovars. Nineteen different NG-MAST sequence-types (STs) were identified, of which 52% were not previously described.
Phylogenetic analysis of the C. trachomatis omp1 gene, revealed genotype G as most prevalent (37%), followed by genotype D (19%). Twenty-three Sts were found among the M. genitalium isolates. Of these STs, 87% were represented by single isolates.
Conclusions
The high diversity of the STI pathogens may be associated with suboptimal diagnostics and epidemiological surveillance, and the lack of contact tracing. More studies regarding the distribution of STIs are vital to estimate the STI burden and form the basis for a national sexual health strategy for prevention, diagnosis, and surveillance of STIs, in Guinea-Bissau.

P1.2.41. EFFICACY OF GARDASIL AGAINST ANOGENITAL DISEASE RELATED TO HPV 6, 11, 16, AND 18 IN SOUTH AFRICAN MEN

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Background
In males, anogenital infection with human papillomavirus (HPV) can lead to genital warts, penile, perineal, perianal, and anal neoplasia and cancer. We evaluated the efficacy of the quadrivalent HPV (types 6/11/16/18) L1 virus-like particle vaccine (GARDASIL) against HPV 6/11/16/18-related external genital lesions (EGL [external genital warts, penile/perineal/perianal intraepithelial neoplasia, and penile/perineal/perianal cancer]) in men from South Africa.
Methods
538 heterosexual men aged 16-26 years were enrolled in 4 sites in South Africa participating in an international double-blind, placebo-controlled trial. Subjects received GARDASIL or placebo at day 1, months 2 and 6 and had genital exams and HPV sampling from the penis, scrotum, and perineal/perianal area at day 1, month 7 and every 6 months afterwards for up to 36 months. Subjects with visible or historical HPV related lesions were excluded at day 1. All lesions were biopsied and PCR tested. Efficacy was calculated in a per-protocol population nave to the relevant HPV type from day 1 through month 7. Endpoints were counted after month 7; median follow up was 2.3 years post-dose 3.
Results
At enrollment, 13.5% of subjects had prevalent anogenital HPV6/11/16/18 infection, and 7.3% were seropositive to ≥1 vaccine HPV type. In the per-protocol efficacy population, only 2 subjects developed EGL (both placebo recipients; efficacy of 100% [95% CI: <0, 100]). Injection-site adverse experiences (AEs) were slightly higher in vaccine recipients; systemic AE incidence was similar in vaccine and placebo recipients. No vaccine-related serious AEs were reported.
Conclusions
Though the data are limited by low statistical power (owing to a relatively small n), the quadrivalent HPV vaccine appears efficacious in preventing genital HPV 6/11/16/18-related disease in men from South Africa. The high HPV prevalence found suggests a potential benefit of vaccinating males prior to exposure.

P1.2.42. TOLL-LIKE RECEPTOR (TLR) AND INFLAMMATORY CYTOKINE GENE EXPRESSION BY HUMAN CERVICAL EPITHELIAL CELLS UPON C. TRACHOMATIS INDUCTION

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Background
Epithelial cells appear to serve as sensitive indicators of infection by actively initiating an early host defense response thorough the expression of Toll-like receptor (TLR) and secretion of proinflamatory cytokines. The nature and regulation of these responses in human primary epithelial cells is poorly understood as most studies are on cell lines. This study investigated changes in TLR expression patterns, and cytokine gene regulation in human cervical epithelial cells in vitro along with TLR downstream mechanisms during C. trachomatis infection.
Methods
Live epithelial cells were isolated from endocervical cells and induction was done with live chlamydial EBs. TLR downstream mechanism was studied by array using real time PCR. TLR expression was studied by flow cytometry and cytokine gene expression by real time PCR. Further, cytokine levels in culture supernatants were estimated by ELISA. In some experiments TLR 2 and 4 were blocked with inhibitory antibodies.
Results
Epithelial cells exposed to live chlamydial EBs expressed high levels of TLR4 in contrast to TLR2 expression which was though unregulated but was non significant. Proinflammatory cytokines like interlukin-6, IL-8, and TNF-a were significantly upregulated in induced epithelial cells compared to uninfected controls whereas levels of IL-1b and IFN-g were found to be significantly lower ($P<0.05$). We found that secretion of IL-6 and IL-8 from infected cells was dependent on TLR4 as upon blockage significant downregulation of the two was seen compared to IL-1b which increased.
Conclusions

his results and further experiments suggest involvement of cervical epithelial cell in modulating immune responses and is important for Chlamydia vaccine design strategies.

P1.2.43. CHANGING PATTERN OF SEXUALLY TRANSMITTED INFECTIONS IN THE BACKDROP OF HIV IN INDIA: AN EXPERIENCE AT A TERTIARY CARE CENTRE

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The scenario of sexually transmitted infections has dramatically changed globally, due HIV infection, not only in terms of disease burden but also the pattern of STIs. HIV can significantly alter occurrence, course, management and overall behaviour of various STIs because of its profound effect on immune system. Studies from various centres in India have reported different patterns of STIs and also shown changes in pattern of STIs since the wide spread occurrence of HIV.
We studied the pattern of STIs in HIV infected individuals attending our Sexually Transmitted Diseases Clinic. A detailed clinical history and examination of these patients were recorded. VDRL and CD4+ cell count were done. Dark ground illumination, Grams stain, Tzanck smear and wet mount were done where ever required. There were 631 HIV positive patients, 508 males and 123 females, between 4.5 - 68 years of age (mean 34.5 years). Majority of them had acquired HIV from commercial sex workers through heterosexual unprotected intercourse. Three hundred and twenty two (51%) of them had 464 STIs. Many of them had more than one STI. One hundred and thirty eight of these were genital herpes, 127 genital warts, 72 molluscum contagiosum, 38 syphilis, 36 scabies, 25 candidal balanoposthitis, 12 vulvovaginal candidiasis, 9 chancroid, 3 gonorrhoea and 4 non-gonococcal uethritis. The CD4+ cell count in these patients varied from 2 1610 cc3 (mean 257 cc3 ; median 218 cc3). Viral STIs like genital herpes, genital warts and molluscum contagiosum were more often seen in patients with <200 CD4+ cell count.
In our study, about 51% (322) HIV infected patients had STIs. Majority of these (73%) were viral STIs. Syphilis was the next commonest while others were less frequent. High occurrence of STIs in our study group may be due to the study subjects been taken from a STD Clinic.

P1.2.44. GENITAL WARTS CONSTITUTE A SIGNIFICANT WORK LOAD AT SWEDISH YOUTH CLINICS

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Background
There are good reasons to believe that genital warts are as common as Chlamydia. However, there is no mandatory reporting of genital warts in Sweden. It has previously been shown that genital warts give rise to a significant work load in the STI clinics in large age groups (Dempsey et al 2007). In Sweden, HPV-vaccine will be offered to girls born 1999 or later starting from 2010. Screening for cervical cancer begins at the age of 23; therefore it will take many years for vaccinated cohorts to reach an age where it will be possible to monitor the effect of the HPV vaccination using cervical screening samples. One of the quickest markers for the effect of vaccination should therefore be the reduction in the prevalence of genital warts. Such a tendency has already been seen in Australia (Fairley et al 2009). Due to this, knowledge about the number of genital warts cases and resource utilization before the start of mass HPV vaccination would be of importance.
Objective and Methods
To define the prevalence of genital warts in patients visiting 10 selected Youth Clinics in the County of Stockholm, Sweden through retrospective real world data collection for the years 2004-2008. Data was extracted from patient records through a specified extraction and data management method, Pygargus Customized eXtraction Program (CXP). The study population consisted of patients with documented diagnosis of genital warts and/or registered prescription of podofyllotoxin or imiquimod. Diagnosis was also confirmed by free text screening.
Results and Conclusions
Approximately 10 % of totally 77 000 reviewed patient records (age 15-23 years) constitute consultation and treatment for genital warts. This represents a significant work load at Swedish Youth Clinics. A more detailed description of the study results will be presented at the congress.

P1.3.1. ENFORCING CONCOM USE:DURING SEX:: THE RIGHT OF WOMEN IN LAGOS, NIGERIA

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Objective
The choice to use or not to use condom during sexual intercourse among sexual partners has often been made by the men. However in order to reduce the rate of sexually transmitted infections (STIs) the world over, the women too have a role to play in the decision to use condom during sex. Hence the work aimed to ascertain the level of enforcement of condom use by women during sexual intercourse in Lagos, Nigeria.
Method
Three hundred questionaires were distributed to women whose consent had been sought in different sector of the economy, to ascertain their level of enforcement of condom use during sexual activity in Lagos.
Result
200 (66.7%) women among the 300 respondents were unable to enforce the use of condom during sexual intercourse because their male partners would not accept condom use, 60 (20.0%) would enforce it during sexual intercourse while the remaining 40 (13.3%) would not remember to enforce it during sex. A significant (p>0.05) value of 240 (80%) women risk the chance of contacting one sexually transmitted infection or the other including HIV/AIDs due to lack of enforcement or forgeting to enforce condom use on their male partners during sex.
Conclusion
The lack of enforcement of condom use by women during sex could lead to a very high rate of STIs and HIV/AIDs in Lagos. Hence there would be the need for legislative backing of women to enforce condom use during sexual intercourse.

P1.3.2. LOW LEVEL OF COMPLIANCE TO CONDOM USE AMONG MEN WITH MULTIPLE SEXUAL PARTNER IN LAGOS, NIGERIA

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Introduction
Concern has been expressed about the rise in the incidence of sexually transmitted infections including HIV/AIDs the World over, especially in Developing Countries. This has been aduced to low compliance to condom use, socio-economic, cultural and religious reasons. Hence, this work was undertaken to check the level of compliance to condom use by men with multiple sexual partners in Lagos, Nigeria.
Method
Informed consents were sought from all participants in the study. Eight hundred questionaires were distributed to Drivers in motor packs, Barbers/Hairdressers at salon, Patent medicine dealers at chemist shops, and people in bars/restaurants to ascertain the level of compliance to condom use among men with multiple sexual partners in Lagos.
Result
Out of the 800 questionaires distributed, 75.0%(600) men claimed they had single sexual partners, 17.5% (140) men had multiple sexual partners, while the rest were indifferent. Of the 140 respondents who had multiple sexual partners, 14.3% (20) of them would comply to condom use during sexual intercourse, while a highly significant (p.0.05) value of 85.7% (120) them would not comply to condom use during sexual intercourse with their partners. A significantly (p>0.05) high value of 57.1% (80) men among those who would not comply to condom use were within the age range 20-35 years.
Conclusion
There is a significantly high incidence of males with multiple sexual partners in Lagos who would not comply to condom use during every round of sexual intercourse with their partners. Hence the need for increased rigorous awareness creations on the dangers involved if multiple sexual partners would not use condom during sexual intercourse, as well as legislature to support women to enforce condom use during sex.

P1.3.3. THE CHILD GOT ALL THOSE THINGS AND DROPS (NEVIRAPINE), BUT THEY DID NOT HELP. RESTORING HOPE, AND REDUCING ANXIETIES?

Lindiwe Farlane *- University of KZN.*

Motherhood means different things to different women, but HIV and AIDS adds complication to such a decision. The estimated HIV prevalence is 28% among pregnant women aged 20-24 and 38% of those aged 25-29 (South African Ante-natal Care HIV/Syphilis Report, 2008). The roll-out of prevention of mother to child transmission (PMTCT) may have brought renewed hope among couples and individuals in South Africa. HIV-positive young women live by socially constructed values that expect them marry and bear children. The impact of a positive HIV diagnosis may be best understood when viewed within a social constructivist framework.
There is a gap in the desired public health care objectives, such as PMTCT and the lived experiences of young women living with HIV. The purpose of this qualitative exploratory research was to explore the reproductive aspirations and intentions of the women below the age of 35. Two focus group discussions and 11 semi-structured interviews were conducted in two South African Townships.
Findings showed that women younger than 30, who did not have a child desired and intended to have biological children. Previous loss of a child due to HIV and financial concerns was often cited with mixed feelings by women who had lost a child while on the PMTCT program.
I wanted to have a child because I was still hurting from loosing the other child.(34 years, Soweto)
Sometimes I think about having a child, but I get scared that what if the same thing that happened with the second child happens again (FGD, Soweto)
This research points out the population of women who have specific needs. More research into the ways of enabling women living with HIV to have babies with little anxieties around transmission, childbirth, recovery post-partum and long term family plans is needed.

P1.3.4. IMPROVING QUESTIONS ON SEXUAL MIXING FOR BRITAINS THIRD NATIONAL SURVEY OF SEXUAL ATTITUDES AND LIFESTYLES (NATSAL 2010): LESSONS LEARNED FROM COGNITIVE INTERVIEWING.

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Introduction
Sexual behaviour surveys are limited in their ability to capture information on sexual networks. Natsal 2010 seeks to address this by asking detailed sexual mixing questions, but there is concern regarding respondents willingness and ability to report details about their sexual partners, and also how lay-people understand concepts such as concurrency. We report results of cognitive interviews used to explore how questions are interpreted, including recall strategies respondents employed and judgments they made in formulating answers.
Methods
Face-to-face cognitive interviews were conducted with 14 men and 18 women aged 18-74yrs during March/April 2009 following completion of the draft Natsal 2010 questionnaire. Interviews lasted ~1 hour and were carried out by highly-experienced cognitive interviewers. Data were analysed using Framework.
Results
Respondents were generally happy to answer questions on their sexual partners and practices, and none were perceived to be too personal. Definitions of the lay-term overlapping partnerships varied but were consistent with the epidemiological concept of concurrency. Questions on current/recent partner(s) were not perceived as burdensome, despite being asked of up to 4 partners. Respondents reported on the age, gender, ethnicity and perceived concurrency of their partner(s) without offense or embarrassment. However, some respondents (of all ages) reported recall problems, especially for former and/or casual partnerships, and admitted that they often guessed ages at, and dates of, sex.
Conclusions
Natsal 2010 will be able to collect detailed data on sexual mixing as cognitive interviews reveal respondents willingness and ability to answer questions on the characteristics of their partners. However, to ensure high-quality data, steps will be required to assist recall (e.g. providing a calendar) and to reduce item non-response

(e.g. not asking for exact dates), and it will be important to define key terms to ensure that questions are interpreted consistently (e.g. by ensuring easily accessible definitions throughout the survey).

P1.3.5. RISK FACTORS FOR HSV-2 AMONGST HIV INFECTED AND UNINFECTED PREGNANT TEENAGERS IN ZIMBABWE

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Background
Herpes simplex virus type 2 (HSV-2) prevalence is negligible amongst persons who have never been sexually active. Prevalence and incidence rates increase with age and are higher amongst HIV infected than HIV uninfected and amongst women than men. Amongst HIV uninfected persons HSV-2 seropositive persons have a higher risk of acquiring HIV-1 compared with HSV-2 seronegative persons. The purpose of this study is to determine the risk factors for HSV-2 infection and its association with HIV-1 amongst pregnant teenagers in Zimbabwe where these infections are very common.
Methods
Pregnant women in their 3rd trimester were recruited from three randomly selected primary health care clinics in Zimbabwe. Participants were interviewed and biological samples collected from all 1050 women but this secondary analysis was limited to teenagers only. HIV-1, HSV-2 and other sexually transmitted infections were tested. Risk factors for HSV-2 were assessed among HIV infected and HIV uninfected.
Results
Amongst the HIV uninfected, partners of HSV-2 seropositive participants were significantly older than partners of HSV-2 seronegative participants, (OR 2.8 [1.2-6.4]). HIV-infected teenagers were more likely to be HSV-2 seropositive compared to HIV uninfected teenagers, (OR 7.9 [3.7-16.9]). In univariate analysis ever used condoms, (OR 2.5 [1.0-6.1)]), ever used contraceptives (OR 2.9 [1.3-6.5]) and Trichomonas vaginalis infection (OR 4.1 [1.3-12.9]) were all significantly associated with HSV-2 seropositivity amongst the HIV uninfected. In multivariate analysis having an older partner remained independently associated with HSV-2 seropositivity, (OR 2.9 [1.2-6.9]).
Conclusion
The risk factors for acquisition of HSV-2 amongst pregnant teenagers depend primarily on the age of the male partner. Preventive strategies must therefore deliberately target males if spread of HIV-1 infection is to be reduced. Meanwhile abstinence or safer sex remains the best preventive methods for sexually transmitted infections amongst teenagers.

P1.3.6. IMPACT OF COMIC BOOK ON THE HIV/AIDS PREVENTIION EDUCATION AMONG YOUNG PEOPLE IN OSUN STATE, NIGERIA.

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Description
The serialsed comic book with quarterly in-school interactive multimedia session was developed around behaviour change model to address HIV/AIDS prevention among in school youth. Reading will lead to learning and learning will in turn, faster behavioural change was main objective of this project. The story of Kemi a young girl peer educator student that impacted HIV/AIDS prevention education on her peer was developed by young people along with artist and program officers. The comic book was produced and distributed each quarterly in-school interactive multimedia session between 30 schools selected for the project.
Issues
Many strategies have been tested on prevention of HIV/AIDS among youth in Nigeria. A little attention was paid to Comic Book as Entertainment- An education tool to provide correct information to in school youth on HIV/AIDS prevention through comic book tilted Hala me HIV meaning tell me about HIV.

Lesson learned
The comic book was very popular among young people and allow them to address sensitive issues more directly. It serves as motivational tool for young people to develop healthy behaviour and change risky behaviour. The comic book serves as trusted source of information about HIV/AIDS. The comic book was also read by significant number of adults and cited the comic book as one of their sources of information on HIV/AIDS prevention.
Recommendations
Involvement of young people in effort to create entertaining and educative strategy to address HIV/AIDS Prevention for their peers is very important. Existing AIDS intervention that target behaviour change among young people could greatly benefit from such a comic book and other IEC materials.

P1.3.7. PREDICTORS OF RISKY SEXUAL BEHAVIOUR IN HIV/AIDS PATIENTS EXPERIENCED AND NAVE TO ANTIRETROVIRAL THERAPY IN KAMPALA, UGANDA.

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Background
With an HIV prevalence of 6.4% (from 30% in late 1980s), Uganda had been seen as a rare example of success in a continent facing severe AIDS crisis. With resurgence of risky sexual behaviour reported in Uganda (UNAIDS, 2006), at a time of increased ART access, this success could be reversed. We therefore conducted this study with the objectives of; comparing risky sexual behaviour (none or inconsistent condom use) in ART experienced and the nave, and identify factors influencing this risk.
Methods
Using a cross-sectional comparative study design, we systematically selected and studied 380 adult PHAs (190 on ART, 190 nave) in Kampala between March and April 2007. Data were analyzed at univariate, bivariate and multivariate (.logistic regression) levels.
Results
227(59.7% had been sexually active. Of these, 42(18.5%) never used condoms, 92 (40.5 %) used condoms inconsistently thus 134(35.3%) engaged in risky sexual behaviour. 76(43.6%) reported symptoms of sexually transmitted infection (STI), 21(8%) of the women reported a pregnancy and 22 (17%) of the men reported having caused a pregnancy. Predictors of risky sexual behaviour included: being married (AOR=3.91 [2.33-6.56]), age below 40 years (AOR=2.45 [1.32-4.55]), desire to produce children (AOR=1.82 [1.06-3.50]), drinking alcohol (OR=2.02 [1.16-3.50]) and belief that condoms reduce pleasure (OR=2.33 [1.34-4.04]).
Conclusion
In the changing HIV/AIDS epidemic, use of condoms alone may not be appropriate for protection and contraception in PHAs.

P1.3.8. Male participation in clinical trials: empowering women and involving men in microbicide research

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Introduction
Reflecting the gendered nature of the HIV epidemic, many prevention interventions and new bio-technologies, such as microbicides, have been designed to empower women through shifting responsibility for prevention decision-making away from men and condom use towards other forms of prevention where women may have greater control. Whilst much has been written about how men are involved in HIV prevention through either directly participating in clinical research or through behavioural change initiatives, little has been written about their participation in female-centred clinical trials.

Methods
This paper uses qualitative data from the MDP301 microbicide trial in Johannesburg, South Africa. Data is taken from 28 In-depth Interviews (IDIs) with male partners of female trial participants and from six Focus Group Discussions (FGDs) involving male partners of trial participants (n=4), and female participants (n=2).
Results
Data taken from IDIs and FGDs show that mens involvement in microbicide research ranges from overt opposition and disinterest in trials to the desire to actively take part in and promote research which affects the health of themselves and their partners. Results showed that some female participants were reluctant to disclose their trial involvement and product use to their male partners, meaning that identifying men as potential research participants was problematic. The practical constraints of involving men who are employed were also shown to affect male participation in clinical research.
Discussion
This paper considers how to involve men in microbicide research without undermining womens sense of empowerment and ownership of the trial and the product that is being tested.

P1.4.1. MONITORING IMPACT OF CONGENITAL SYPHILIS ELIMINATION: WHAT MAKES THE MOST SENSE FOR AFRICA?

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Background
Few countries monitor congenital syphilis occurrence, and those that do have generally relied upon case counts obtained through routine or sentinel surveillance. This approach may not be the most appropriate way to monitor and ensure impact of global programs aimed at congenital syphilis, particularly in regions with limited health systems monitoring.
Methods
A WHO-led working group identified candidate outcome measurements based on practical and theoretical bases. Outcomes were assessed on their observed or likely utility at measuring national and/or global impact of the elimination program; likelihood of being considered for inclusion in existing maternal, newborn and child health (MCH) monitoring systems; and feasibility of use at local levels with highest maternal syphilis burden.
Results
Candidates for outcome monitoring include: case rates (ie congenital syphilis rates per 100,000 births); infant deaths / neonatal deaths due to congenital syphilis; LBW/preterm births associated with congenital syphilis; perinatal deaths due to CS; stillbirths due to CS.
Discussion
Case rates: very dependent upon case definition; existing definitions vary by country and may be quite sensitive, with many case infants unaffected by disease; more specific diagnoses involve steps such as testing spinal fluid specimens, performing IgM serologic testing -- not feasible in many locales; accurate counting requires broad-based testing at delivery. Infant / Neonatal deaths: Accurate diagnosis not possible in many deaths; proportion of these deaths associated with syphilis rather small (under 10%). Syphilitic stillbirths: In countries with substantial prevalence of syphilis in pregnancy, syphilis accounts for high proportion of stillbirths (25% or more); identification of active syphilis in mother with stillbirth may be acceptable definition; assessment of stillbirth occurrence is not widely implemented nor a standard WHO measure.
Conclusion
No outcome measure is ideal. However, on balance, monitoring via sentinel surveillance the proportion of stillbirths that are syphilic may be the most useful approach.

P1.4.2. SEX WORK IN A DECRIMINALIZED AND UNLICENSED ENVIRONMENT: A 15-YEAR STUDY IN SYDNEY, AUSTRALIA

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Objective
To determine trends in demographics, behaviours and sexual health of female sex workers through a period that spanned the decriminalization of prostitution in 1995.

Methods
For the sexually transmissible infection (STI) prevalence study we included all sex workers who attended the Sydney Sexual Health Centre for the first time from 1992 through 2006. For the incidence study we included all women who attended for further STI testing from 2004 through 2006. Data were extracted from the Centres patient database. Factors associated with STIs were determined using univariate and multivariate logistic regression analysis.
Results
Between 1992 and 2006 the Centre saw 3,834 female sex workers for the first time, with an increase in median age from 25 to 29 years over the study period (p-trend <0.001) and a large increase in the proportion born in Asian countries (33% in 1992-1994 to 55% in 2004-2006, p-trend <0.001). Consistent condom use in the workplace increased among Asian sex workers from 77% in 1995-1997 to 95% in 2004-2006 (p-trend <0.001), while remaining high (>95%) among non-Asian women throughout the study period. The prevalence of STIs decreased over time, with the greatest decline among Asian sex workers (9% in 1992-1994 to 1% in 2004-2006, p-trend <0.001). On multivariate analysis Prevalent STIs were associated with younger age (<27 years, odds ratio [OR] 1.98, 95% confidence intervals [CI] 1.33-2.93; p<0.001), Asian origin (OR 2.38, 95%CI 1.60-3.58; p<0.001), and inconsistent (<100%) use of condoms at work (OR 3.98; 95%CI: 2.47-6.40; p<0.001). Between 2004 and 2006 the incidences of chlamydia (2.3 per 100 person years, gonorrhoea (0.02), trichomoniasis (0.04), syphilis (0), and HIV (0) were too low to determine any risk factors.
Discussion
Sex workers can achieve and maintain extraordinarily low rates of STIs without coercive measures,

P1.4.3. A COMPREHENSIVE AUTOMATED PHARMACY INFORMATION MANAGEMENT SYSTEM FOR ENHANCING ART PATIENT MONITORING - TASO MASAKA EXPERIENCE.

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Background
Provision of ART has been taking place since 2004 with emphasis on strengthening management information systems to improve collection, analysis, patient monitoring and decision making for programme management using PIMS. PIMS is an integrated prescription, dispensing and treatment management system that provides todays Antiretroviral pharmacies with necessary tools to handles patient treatment. PIMS offers a high degree of functionality combined with an easy to use interface menu driven based on Epi Info 2002 platform.
Results
TASO is now able to summarize quantitative and qualitative information which has made decision making faster since summaries are availed on a click of a an option. The system can capture information on biographical information of the client, ART treatment history, and the number of drugs dispensed to clients. The system can generate up to 15 different kinds of standardized information reports for Monitoring and Evaluation, quality assurance, research, planning and other operational functions. Pharmacy Technicians are now able to keep track of ART clients on treatment, missed appointments, lost to follow-up, scheduling clients, produce stock management reports, perform drug forecasting basing of past consumption, -manage Pre-parking on scheduled drug deliveries (ARVs, TB, Septrin, Fluconazole and Vitamins).

P1.4.4. TEENAGE PREGNANCY: WHAT DO YOUNG PEOPLE THINK?

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Background
Teenage pregnancy has adverse health and socioeconomic outcomes. In South Africa it is accompanied by a high risk of sexually transmitted infections including HIV.
This qualitative study explores attitudes, perceptions and understanding of teenagers in Taung regarding teenage pregnancy and identifies factors which influence its occurrence in this rural community.
Methods
In-depth interviews of 13 pregnant teenagers (aged 14 to 19)
Three focus groups of 10 participants:
Women aged 19 to 25 who had a baby as a teenager
Teenage girls aged 14 to 19 who had never been pregnant
Males aged 14 to 25

Results
Attitudes and perceptions:
Most felt teenage pregnancy was undesirable due to interrupted education, risk of HIV disease and death, loss of partner and family strife. However, others identified short term economic benefits and felt that earlier pregnancy safeguarded the right to motherhood before one becomes sick with HIV.
Understanding
There was some awareness of methods of contraception, particularly condoms.
Factors

- Socioeconomic factors:
  A relationship with an older richer man is a way of supplementing ones income. One participant was encouraged by their household to become pregnant in order to secure financial support.
- Gender power inequalities:
  Participants related situations of coercion, transactional sex and rape.
- Other factors include alcohol misuse, peer pressure, the need to prove ones fertility and the lack of other recreation.

Conclusions
Teenagers perceptions, attitudes and levels of understanding are mixed. Factors influencing teenage pregnancy in this setting are complex but include poverty and gender inequality. In the context of the HIV epidemic there may be an emerging sense of safeguarding ones right to motherhood by having a child before one becomes sick with HIV.

P1.4.5. PROVIDING STI CARE AND OTHER REPRODUCTIVE HEALTH SERVICES FOR POPULATIONS AT HIGH RISK OF HIV: PERFORMANCE EVALUATION OF AN EVENING CLINIC IN TETE PROVINCE, MOZAMBIQUE

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Background
Different models exist to provide HIV/STI services for most-at-risk populations (MARPs). Along the Tete traffic corridor in Mozambique, linking Malawi and Zimbabwe, an evening clinic opening between 16-22h was established targeting female sex workers (FSW) and long-distance truck drivers (LDD) and offering peer education, STI care, HIV testing and family planning. To evaluate this clinic model, we assessed cost, effectiveness and sustainability.
Methods
In 2006-2008, mapping and enumeration of FSW and LDD was conducted; 28 key informants were interviewed; 6 focus group discussions (FGD) were held with Mozambican FSW, Zimbabwean FSW, Mozambican LDD and Malawian LDD; and clinic outputs and costs were analyzed.
Results
An estimated 4,415 FSW work in the area, being 9% of women aged 15-49, and 66 trucks stay overnight near the clinic. On average, 258 clients/month visit the clinic (45% for STI care, 47% for education and counseling and 8% for other services); 32% are FSW and 39% LDD. The average clinic running cost is 789/month, mostly (87%) for human resources. All informants endorsed this clinic concept and the need to expand the services, but acknowledged the public health system cannot absorb the clinic because the concept is still not recognized. FGD participants reported high satisfaction with the services and mentioned good reception by the health staff, short waiting times, proximity and free services as most important. Participants were in favor of expanding the range of services, the geographical coverage and the opening times.
Discussion
Size of the target population, satisfaction of clients, endorsement by health policy makers and reasonable costs justify the existence of a separate clinic for MARPs. Performance can be enhanced by broadening the range of SRHR-HIV/AIDS services, adapting opening times, expanding geographical coverage and targeting additional MARPs. Long-term sustainability can only be ensured by private-public partnerships or continued project-based funding.

P1.4.6. PROVIDERINITIATED TESTING AND COUNSELLING (PITC): PATIENT TEST DECISION-MAKING AND INFORMED CONSENT.

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Background
Provider-initiated Testing and Counselling (PITC) or opt-out HIV screening, does increase HIV testing rates but there are concerns this approach may compromise informed decision-making and lead to coercive practices, especially in resource- constrained settings. In April 2006 a PITC intervention for STI patients was implemented in 7 clinics in Cape Town. The objective of this study was to examine patient experience in this context to better understand test decision-making and informed consentknowledge that will contribute to the ethical application of PITC in resource constrained settings.
Method
This is a qualitative investigation using semi- structured individual interviews (20) and observation of nurse-patient STI consultations (12) in four pilot clinics. Thematic analysis was done on individual interviews with STI patients who tested HIV negative and HIV positive and those who declined testing. Analysis of STI provider-patient consultations complemented the data.
Result
Patient belief about the benefits of HIV testing for accessing HIV care, previous experience of HIV testing, having family and friends with HIV/AIDS and positive provider interaction were key influences in their test decision-making. In the STI consultation, being told about the link between STI and HIV and personalising the HIV risk increased willingness to test. Despite evidence of the unequal patient-provider dynamics, patients showed awareness of their right to refuse testing, were realistic about the test outcome and possible negative implications and they were positive about the PITC approach.
Conclusion
The study indicates that the PITC approach as delivered by trained STI nurses is able to reduce some personal and provider barriers to HIV testing. It appears PITC can be ethically applied in a resource constrained primary health care clinic context, provided there is effective training and supervision of staff and continued vigilance to ensure informed consent.

P1.4.7. Adenovirus and Herpes simplex virus as a possible cause of non-gonococcal urethritis.

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Introduction
The most common causes of non-gonococcal urethritits (NGU) are Chlamydia trachomatis and Mycoplasma genitalium. However, in many cases no pathogen is identified and adenoviruses and herpes simplex virus (HSV) may be potential viral causes of NGU. Published data reveal a prevalence of 2-6% for adenoviruses and 1-5% for herpes simplex viruses. To prevent unnecessary treatment with antibiotics, testing for these viral pathogens may be useful.
The objective of this pilot study is to detect adenoviruses and HSV in our samples to establish the occurrence of these viral pathogens and to investigate if theres a relation between these viruses in men with or without NGU.
Methods
Specimens from men (n=306) and women (n=619) which had been routinely tested for Chlamydia trachomatis (CT) and Neisseria gonorrhoeae (NG), were tested retrospectively for the presence of HSV-DNA and adenovirus-DNA by real-time PCR.
Results
In men 31 (10.1%) samples were positive for CT and 1 (0.3%) sample was positive for NG. Adenovirus en HSV were found in 4 (1.3%) and 5 (1.6%) samples respectively. One sample was found adenovirus positive

in a patient with persisting urethritis and one sample with positive HSV result in a patient with urethritis, no other pathogen was detected in these samples . From the other 7 no clinical data were available.
In women 40 (6.5%) were CT positive and 1 (0.2%) was Ng positive. Adenovirus was detected in 2 (0.3%) and HSV in 10 (1.6%) samples. Two had some symptoms and from the other 108 no data were available.
Conclusions
Screening of all STI samples, for adenoviruses and HSV in our population is not in consideration on basis of these data and further study is recommended. In men with persisting urethritis it might be useful to test for adenovirus and HSV if no other pathogen is found.

P1.4.8. SEXUAL BEHAVIORAL AND CLINICAL CHARACTERISTICS OF YOUNG WOMEN ATTENDING THE FAMILY HEALTH PROGRAM IN VITORIA, BRAZIL

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Background
Brazil has implemented health reform based on provision of primary care through family health clinics. The impact on reproductive and sexual health care for young women is not well understood.
Objectives
To describe characteristics associated with demographic, behavioral, and clinical characteristics in young women in Vitria, Brazil.
Methods
From March to December 2006, women aged 18 to 29 years were recruited into a cross-sectional, single-stage, population-based, household study. Demographics, sexual risk exposures, and clinical data were assessed by a structured questionnaire.
Results
Of 1,200 eligible women identified, 1,029 enrolled (85.7%). The median age of the participants was 23 (interquartile range 20-26) years, 42.7% were married or co-habitating with a male partner, and 68.4% had more than 8 years of education; 72% of women had received care through the Family Health Program (FHP) in the previous 6 months. Factors independently associated with seeking FHP care in last six months were: having been previously tested for HIV, using anal sex as contraceptive method, and reporting a current vaginal discharge. Women who reported been commercial sex worker, having been previously diagnosed with a sexually transmitted infection, or using oral sex as a contraceptive method were less likely to have sought care in the last six months.
Conclusions
This report highlights the generally positive access to health care, including reproductive and sexual health care for young women, in urban Brazil where the FHP has been implemented for the preceding several years, and documents the important reproductive and sexual health issues to be addressed in primary care settings.

P1.4.9. TRENDS IN THE AETIOLOGY OF SEXUALLY TRANSMITTED INFECTIONS (STIs) AMONG STI CLINIC ATTENDERS IN JOHANNESBURG, SOUTH AFRICA (2007-2009)

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Objectives
To determine the aetiology and trends in relative prevalence of key STIs syndromes and the seroprevalence of syphilis, HSV-2 and HIV among STI patients.
Methods
Consecutive consenting patients with male urethritis (MUS), vaginal discharge (VDS) and genital ulcer (GUS) syndromes were enrolled in Johannesburg (January to April, 2007-2009). An endourethral swab (MUS), an endocervical swab and vaginal smear (VDS), a genital ulcer swab and smear (GUS) and blood for serology (all) were collected. DNA was extracted from the swabs to detect Neisseria gonorrhoeae, Chlamydia trachomatis, Mycoplasma genitalium and Trichomonas vaginalis (MUS/VDS), or Treponema pallidum,

Haemophilus ducreyi, Chlamydia trachomatis L1-3 and Herpes simplex virus (GUS), by multiplex PCR assays. Slides were stained for bacterial vaginosis/candidiasis (VDS) and donovanosis (GUS), respectively. Sera were tested for syphilis (RPR), HSV-2 and HIV antibodies. Chi squared for linear trend analyses were performed.

Results

Overall, 706 MUS, 589 VDS and 313 GUS patients were enrolled. Annual aetiologies for each syndrome remained constant: gonorrhoea (MUS, 71-78%), bacterial vaginosis (VDS, 31-38%) and genital herpes (GUS, 54-75%). Over 2007-2009, a decrease in trichomoniasis in MUS patients ($p = 0.025$) and an increase in genital herpes among GUS patients (0.004) were observed; no other significant aetiological trends observed. In terms of three year serological trends, HIV co-infections decreased among MUS patients ($p=0.026$), HSV-2 co-infections decreased among MUS patients ($p=0.034$) whilst increasing in VDS patients ($p=0.047$), and RPR seropositivity decreased in VDS patients (0.0112). There were no other significant trends observed.

Conclusions

These data suggest a significant decrease in trichomoniasis, HSV-2 and HIV among MUS patients. In contrast, the relative prevalence of genital herpes as the leading aetiology of GUS, and HSV-2 seroprevalence in VDS patients, continues to rise. Though these trends are encouraging for men, the failure to observe similar trends among women are of public health concern.

P1.4.10. CREATING INDICES OF SEXUAL HEALTH DEPRIVATION: EXPERIENCE FROM ENGLAND, UK

Ian Simms *- Health Protection Agency Centre for Infections. 2: Dr Zheng Yin - Health Protection Agency 3: Dr Mai Stafford - Department of Epidemiology & Public Health, University College London 4: Ms Wendi Slater - South West Public Health Observatory 5: Dr Stefano Conti - Health Protection Agency*

Background

Sexual health is a complex, multifactorial problem which is monitored by a wide range of surveillance datasets. Indices such as the English Index of Multiple Deprivation (IMD2007) have been used to examine variation in area based deprivation using seven dimensions. Sexual health indices would provide a framework to describe and monitor variations in sexual health inequality. The delivery of sexual health services is focused on a balance between need and commissioning, and consequently two indices were developed: (1) Morbidity, (2) Service Provision. Here we focus on the construction of the Morbidity Index.

Methods

Surveillance datasets of HIV and other STIs, conceptions, abortions, and complications of sexual and reproductive health were obtained from the Health Protection Agency and South West Public Health Observatory. The IMD2007 methodology was applied. All variables were smoothed and converted to normal distribution before factor analysis was applied. Weights for the variables within each domain (categories such as conceptions and abortions) were derived from the resulting solution. A score for the domain was calculated by combining variables, and the results for each domain were then combined to create the final **index. The resultant values were mapped.**

Results

Three-quarters (24/31) of London Primary Care Trusts (PCT) were among the 25% (38) most deprived nationally. More than half the PCTs in East of England, South East Coast and South West were amongst the 25% least deprived areas. The distribution of local health service areas was similar to that in IMD2007. 20 of the 25% most deprived areas seen in the Morbidity Index were among the 25% most deprived areas seen in IMD2007.

Conclusions

The index values, maps and supporting information associated with the index will enable policy makers and service providers to explore sexual health issues at the local and national level and, in relative terms, over time.

P1.4.11. SCARED TO COME TO THE CLINIC, BECAUSE NURSES GIVE YOU THAT LOOK; BARRIERS AND OPPORTUNITIES FOR YOUTH-FRIENDLY SERVICES AND COMMODITIES IN AN URBAN TOWNSHIP OF SOUTH AFRICA

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Objectives
We sought to assess barriers and opportunities for accessing youth friendly STI/HIV prevention services and commodities in an urban township of Johannesburg. Youth under 25 are at high risk for sexually transmitted infections (STI) and are less likely to access clinical services. Understanding youth perceptions of access will enable formulation of new approaches to STI/HIV prevention in accordance with South Africas 2011 Strategic Plan goals.
Methods
We conducted 4 focus groups (FG) in October 2008, involving 40 youth aged 16-19 years recruited from youth centers in Alexandra. We allocated youth to FGs by similar age and gender group. Discussions were conducted in English and local languages. Trained facilitators asked adolescents about their perceptions of STIs, accessibility of health services, STI/HIV prevention commodities and information. Data were analyzed using NVivo7 software.
Results
Youth reported high awareness about STI and HIV symptoms but desired more detailed STI information. Accurate information is not always present, and misconceptions about STIs were common, for example, youth citing STIs leading to HIV and condoms causing infections. Youth also reported clinic staff to be judgmental. Participants reported that many youth resorted to using home remedies for STI treatment (e.g. vinegar, liver). Youth mentioned opportunities to improve information through youth centers, TV adverts and internet to disseminate information. Youth lacked knowledge of and access to water-based lubricants and reported use of unsafe alternatives. There was widespread interest in female condoms by both girls and boys, but youth mentioned that they were rarely able to obtain them. Youth suggested that health campaigns should feature both female and male condoms.
Conclusion
The youth of Alexandra face multiple challenges accessing accurate information, youth friendly services and prevention commodities. Teens reported that they would like more teen-friendly services delivered by peers.

P1.4.12. THE EPIDEMIOLOGY OF SEXUALLY TRANSMITTED DISEASES IN SWEDEN

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Background
The objective of this study is to define the epidemic for each of the following sexually transmitted infections (STIs) chlamydial infection, gonorrhoea, syphilis, and HIV. Today, Chlamydia is the only STI that affects the general population in Sweden. In the past gonorrhoea and syphilis had an appreciable affect on the general population but during the 1990s, they were nearly eradicated. HIV, on the other hand, was never introduced into the general population in Sweden.
Study Design
This is a descriptive analysis of data based on mandatory notifiable cases of STIs in Sweden, which all physicians are obliged to report to the Medical Officer of Health and to the Swedish Institute for Infectious Disease Control.
Results
In 2007, the number of reported Chlamydia cases was the highest ever recorded in Sweden. The incidence of gonorrhoea and syphilis in the mid-1990s decreased appreciably. HIV has been restricted to subpopulations (homosexuals, intravenous drug users, and people from highly HIV endemic countries).
Conclusion
The Swedish strategy to reduce HIV, gonorrhoea and syphilis has been successful. HIV has remained confined to distinct vulnerable groups. The present Chlamydia strategy in Sweden has failed, implying that

greater focus must be paid on understanding transmission dynamics, including the effects of screening programmes on acquired immunity and to establish complication and clearance rates. The most important is to encourage individuals to reduce the number of sexual partners.

P1.4.13. DEVELOPMENT OF STI EDUCATIONAL MATERIALS AND PARTNER NOTIFICATION CARDS: FINDINGS FROM FOCUS GROUPS IN GAUTENG PROVINCE, SOUTH AFRICA

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Objectives
This study was designed to test the usefulness and clarity of STI/HIV educational brochures and STI partner notification (PN) referral cards in men and women who are diagnosed with a STI syndrome while seeking health care at a public health clinic.
Methods
Based on previous research, STI/HIV educational brochures and STI PN referral cards were developed as part of a larger STI/HIV intervention trial. Two brochures were developed (one for men, one for women) and included content on STI symptoms and sequelae, STI health care, STI transmission and HIV testing. Additionally, bifold and trifold versions of the brochures were tested. PN referral cards were double-sided, business sized cards. One side had information for the partner; the other side had information for the health care provider. Materials were tested in focus groups in December 2008.
Results
Five focus groups were conducted: three with males (n=13) and two with females (n=14). Participants were from diverse ethnicities and were 19 to 35 years old. Participants found the brochures to be informative. Men and women thought STIs were common and some were aware of some of the symptoms. However, most participants did not understand the term "herpes." Some participants were confused by the statement that "STIs will not turn into HIV," and other misconceptions about STI/HIV were identified. Women wanted the brochure to include images for the female condom in addition to the male condom. Participants found the PN cards to be very helpful and indicated that they would use them as a tool to discuss their STI with a partner.
Conclusions
In Gauteng, there is still a need for STI education even in STI patients. A properly designed brochure could be a useful method to disseminate STI information. Also, PN cards could help STI patients with the process of partner notification.

Poster Session 2

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P2.1.3	Komivi Mawusi Aho	FOLLOW-UP TO THE THERAPEUTIC OBSERVANCE OF THE PATIENTS UNDER ANTIRETROVIRAL DRUGS: EXPERIENCE OF THE CRIPS ASSOCIATION ABOUT 111 PATIENTS FOLLOWED FROM APRIL 1ER TO DECEMBER 31, 2007
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P2.4.5	David Hawkins	PROMOTING SEXUAL HEALTH IN THE FIELD OF SPORT
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P2.1.1. BIOLOGICAL FOLLOW-UP OF A PROSPECTIVE COHORT OF 101 PATIENTS INFECTED BY HIV AND PUT UNDER ANTIRETROVIRAL TREATMENT

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Objectives
The aim of this work was to establish the biological profile of the patients according to the diagram of therapy (Triomune, Combivir + Nevirapine, Combivir + Crixivan) the most frequently used in Togo.
Patients And Methods
It is about a retrospective descriptive survey of a cohort of PLWHA put under antiretroviral treatment between March 2002 and 31 December 2004. The epidemiologic, biologic and therapeutic parameters of this sample have been analysed.
Results
This survey has concerned 101 patients whose age was comprised between 2 and 58 years with a medium age of 36.81 years. The age groups from 20 to 49 years have represented 88 % of our sample. There was a feminine predominance with a sex-ratio of 0.23. As far as the therapy is concerned 71 patients (70.29 %) were under triomune. Eight of the patients under Triomune have presented an immunological failure during 18 months. As far as biology is concerned the analysis of the rate of CD4 of the NFS and of the biochemical has retrieved that the biological follow-up has presented some flaws. In fact, out of the 101 patients who have made a CD4 in pre-therapeutic stage: 101 (100 %); 54 (53.47 %); 13 ((12.87 %) and 3 (2.97 %) have realised respectively a first, second, third control then a fourth control. Out of the 51 patients who achieved a NFS in pre-therapeutic stage 46 (45.54 %); 14 (13.8 %) and 10 (9.90 %) have achieved respectively a first a second then a third control. Out of the 42 patients who have achieved a dosage of the transaminases in pre-therapeutic stage, 40 (39.60 %); 23 (22.77 %) and 10 (9.9 %) have achieved respectively a first, a second then a third control. The Triomune has enabled a medium gain of CD4 of 204.16 mm3 in the thwelveth month of treatment. In the NFS only the rate of hemoglobine has meaningfully increased during the treatment passing from 9.34 g /dl to 10.86 g /dl in a medium time limit of 6 month (p = 0,000123). The total number of white gobules, the total lymphocytes and thrombocytes didnt undergo a meanningful evolution under antiretroviral treatment.
The hepatic transaminases knew a clear elevation at the first control passing an average from 50.21 ui / l to 67.6 ui / l for the SGOT and from 37.45 ui / l to 50.2 ui / l for the SGPT.
Conclusion
At the end of this survey one will remember that whenever the costs of the balance sheet of the biological follow- up will be at the expenses of the patients this follow-up will always be mediocre. The Triomune, product less costly finds its efficiency at least within the 12 first months of intake. The total number of white globules and the total number of lymphocytes dont constitute parameters of the follow-up of the treatment.
Perspectives
Make free of charge the balance sheets of the biologic follow-up of the patients under antiretroviral treatment and make available the triomune as first class treatment.

P2.1.2. THE MEDICAL FOLLOW-UP OF PEOPLE INFECTED BY THE HIV/AIDS IN ASSOCIATIVE ENVIRONMENT IN LOM: BALANCE OF ACTIVITIES OF CRIPS ASSOCIATION ABOUT 412 PATIENTS FOLLOWED FROM JANUARY 1ST TO DECEMBER 31, 2007

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Objectives
Our survey has for goal to make the balance of activities of medical follow up of people infected by the HIV/aids after one year of existence of the CRIPS association.

Methodology
We followed up at CRIPS, from January 1st to December 31, 2007 either a period of 1 year people infected by the HIV, newly written down in this association. It allowed us a prospective collection of the data for our survey.
Results
We followed 412 patients of which 66.75% of feminine sex and 33.25% of masculine sex (sex - ratio = 0,5). Their age varied between 4 months and 68 years with an average of 34 years. The bridegrooms represented 41.99%. We registered 213 new cases (51.70%) and 199 former cases (48.30%). The age group from 25 to 44 years was the more represented of the new tracked down cases either 70.89%. The diagnosed and treated opportunist infections were dominated by digestive candidiases: 125 cases (70.62%).
60.25% of the new cases adults had the CD4 <200 cells/mm3.
89 patients have been put under ARV. Before the setting under ARV the pruritus and the cough were the most dominant symptoms or illnesses (6,36% each) .At the first 3 months of ARV one noted a reduction of the frequency of most symptoms / affections with the exception of the peripheral Neuropathies and the insomnia that saw their frequency increasing. Between the 3rd and the 6th month of ARV the frequency of the pathologies decreased considerably, even the candidiases and anemia didn't exist anymore.
We counted 38 deaths on the 412 patients followed with a rate of death about 9.22%. They were aged of 15 to 68 years with an average of 35.92 years. The reasons of the deaths were dominated by the pulmonary infections 31.58%. On the 18 new patients who had measured out the CD4 before the death, 77.17% had the CD4 <200 cells/mm3 and among them 61,11% had the CD4 <50 cells/mm3. On the 9 former cases arrived and deceased, 77.78% had the last CD4 <200 cells/mm3.
Conclusion
Our survey achieved in Lom showed that an earlier tracking and follow up are necessary to avoid a stern immunodficience dragging the sufferings and the deaths of the PLWHA in general. Otherwise this survey confirms the fminisation of the infection by HIV in Togo and in particular within the users of the associations.
Perspectives
To reinforce the sensitization and the prevention of the HIV targeted on the young women of 25 at 44 years. To finance the backing of capacity of the associations in charge of the PLWHA.

P2.1.3. FOLLOW-UP TO THE THERAPEUTIC OBSERVANCE OF THE PATIENTS UNDER ANTIRETROVIRAL DRUGS: EXPERIENCE OF THE CRIPS ASSOCIATION ABOUT 111 PATIENTS FOLLOWED FROM APRIL 1ER TO DECEMBER 31, 2007

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Objectives
As in all chronic affections, the treatment by the ARV in HIV /aids infection, also pose the problem of observance. The cost of the treatment occupies a good place among the reasons of no-observance. However in CRIPS the ARV treatment was free. It is why our survey intends to search for the other reasons and factors that encourage the no-observance therefore and to appreciate their consequences in term of days of rupture of the ARV treatment.
Methodology
It is about a prospective survey about 111 patients infected by the HIV / aids under ARV treatment followed from April 1st to December 31, 2007. The epidemiological parameters and therapeutic data of this sample have been mentioned on the cards of observance follow-up, and then analyzed.
Results
The age of the patients varied from 1 to 54 years with an average of 38,88 years. The age group of 25 to 49 years represented 77.50% of our sample.
On the 8 ARV protocols recorded the Triomune30 was the more used(78.37%). The middle number of rupture days by patient was of 19.9 days with extremes of 3 to 102 days on the 9 months of the survey. It was in the month of November that the middle number of rupture days by patient has been the higherst; up to 14.4 days. The rupture of stock of the ARV and/or the delay of delivery at the national drug store (CAMEG) constituted the main reason of no-observance is 80%, followed of journeys is 6,3%, secondary effects (4,2%), lack of means to travel to the center (3,20%), oblivion (2,1%),

Conclusion
This survey of the follow-up to the therapeutic observance of 111 patients under ARV in CRIPS showed a bad observance of the patients under ARV due to the ruptures of treatment in the CAMEG. Besides the patients had 19,9 days of rupture on average what could encourage the selection of resistant mutants.
Perspectives
It imports to reinforce the capacities of the CAMEG concerning management of the stocks of ARV therefore and to decentralize the dispensation of the ARV.
It also imports to achieve tests gnotypiques of resistance within the population of the patients under ARV since already 1 year in Togo.

P2.1.4. MEN WHO HAVE SEX WITH MEN (MSM) AND HIV IN NIGERIA

Oliver Adolphus Anene *- Alliance Rights Nigeria. 2: Mr. Ifeanyi Orazulike - Alliance Rights Nigeria 3: Ms. Vanessa Dennis - Sexual Minorities Against AIDS in Nigeria 4: Mr. Kehinde Okanlawon - Independent researcher*

Background
Since the beginning of the HIV epidemic prevention, strategies have been more effective when they have meaningfully involved PLWHA in their design, implementation, and evaluation. In Nigeria, MSM HIV prevention strategies have however, often failed to address the distinct prevention needs of MSM, and/or build capacity for their meaningful participation. Their involvement has often been relegated to little more than tokenism. The aim of providing specialized care for MSM living with HIV is to empower them to avoid acquiring new STIs, delay HIV progression, and avoid passing their infection to others in the MSM community, and other population.
Specific Challenges
There are barriers to accessing health care that are specific to MSM in Nigeria. These include the fear of discrimination and stigma, which act to prevent MSM from seeking care for themselves, or their families. MSM experience Homophobia, which can result in their not going back for needed further care, or withholding personal information that health care providers need, in order to be able to give appropriate care. Many MSM in rural Nigeria also believe in misconceptions that STIs can only be contracted through vagina sex, and as such consider anal sex to be safer.
Recommendations
In order to eliminate barriers to health information and care for MSM, the Nigerian Government needs to build awareness on MSM needs, and develop the skills needed to meet these needs.
The health care system must be structured and promoted as an inclusive and non-discriminatory environment for MSM, so as to increase the trust of MSM clients.
The most important aspect is to ensure confidentiality of client data, including information about sexual orientation and (Trans) gender identity.

P2.1.5. STRONG PATTERNERSHIPS ARE THE KEY TO SUCCESSFUL PREVENTION OF MOTHER TO CHILD TRANSMISSION TASO UGANDA EXPERIENCE

Josephine Birungi *- The Aids Support Organisation (Taso) Uganda Limited. 2: Kizito Nicholas - The Aids Support Organisation 3: Nampijja Sarah - The Aids Support Organisation 4: Akullo Joan - The Aids Support Organisation 5: Lumala Patrick - The Aids Support Organisation 6: Nauntume Sophie - The Aids Support Organisation*

Background
The AIDS Support Organization (TASO) in Uganda, founded 21 years ago offers psychosocial care; home care and medical care to over 80,000 people living with HIV/AIDS (PHA) of whom 22,000 are receiving antiretroviral therapy. 60% of the PHA attending TASO clinics are female and majority of whom are in reproductive age group.
TASO realized a high level of stigma among HIV positive women who became pregnant after having disclosed their HIV status to the community. This was because the community members did not appreciate the need expressed by HIV positive women to have children. The number of abortions and death due to abortion was on the rise, some women did not return to the clinic until they had given birth for fear of ridicule from the public. TASO then introduced the Prevention of mother to child transmission (PMTCT) programme as part of care package. However, this did not solve the problems and so a strategy had to be developed to involve the community.

Method
TASO Jinja one of the eleven TASO centers organized a meeting for representatives of all health units, religious institutions, traditional/herbalists unit and some opinion leaders within its catchment area of radius of 75km. The problems were discussed, the roles of each institution were defined and agreed upon. It was also agreed to hold quarterly review meetings to discuss progress.
Results
The mortality due to abortions decreased
The number of abortion cases reported reduced
The partnership was extended to other programmes
The uptake of PMTCT programme improved and number of children who tested positive was smaller.
Many infants had an opportunity to be tested at an early age of 6 weeks.
Conclusion
The success of prevention of mother to child transmission is largely dependant on the support the pregnant HIV positive woman gets from her community.

P2.1.6. PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV AND THE PROVISION OF TREATMENT, CARE AND SUPPORT IN THE RUSSIAN FEDERATION.

Marina Cherkasova *- AIDS Foundation East-West.*

The project aims to empower HIV-positive women, their children and families to access timely care and take an active role in shaping the HIV agenda. Furthermore, by targeting women of child-bearing age with prevention messages, AFEW aims to reduce the risk of HIV transmission to their children.
Specifically, AFEW is carrying out the following activities as a part of this project:

Providing care and support to HIV-positive women and HIV-positive pregnant women by ensuring that they have access to rapid prevention measures during childbirth, means of preventing tuberculosis for their newborns, and access to infant milk formula to prevent HIV transmission through breastfeeding;

Providing thorough skills-building training seminars and information for healthcare professionals in maternity clinics, paediatric hospitals and womens health clinics on the prevention of mother-to-child HIV transmission;

Developing, producing and distributing informational and educational materials for women and healthcare professionals in the target regions;
By establishing effective communication between various service providers and other governmental agencies involved in preventing mother-to-child HIV transmission, AFEWs activities contribute to sustaining and embedding these initiatives within the local settings.

Thus far, the project has attained the following results:
2 863 children in the project regions received infant formula that prevents the infection of HIV by breastfeeding during their first 12 months of life;
In 8 new regional resource centers on PMTCT 905 specialists (doctors and paramedics from clinics and facilities providing services to females planning pregnancy, pregnant women and infants) have received training on PMTCT;
In addition, 444 225 copies of informational materials have been developed and distributed to HIV-positive women and expecting mothers in the target regions.

P2.1.7. EVALUATION OF SYNDROMIC MANAGEMENT OF STD IN PEOPLE LIVING WITH HIV/AIDS IN CESAC-BAMAKO

Naye Bah Diallo *- Cesac-Bamako. 2: Dr. Mamadou Cisse - Cesac-Bamako 3: Dr. Fodie Diallo - Usac Commune V 4: Dr. Dembele Bintou Keita - Arcad Sida 5: Dr. Aliou Sylla - Arcad Sida*

Context
The ordinary analysis of the reasons for regular consultation in CESAC (The Center of Listening, Care Facilitation and Consultancy) of Bamako showed a frequency of approximately 70% of STDs consultations, it is known that STDs are a major factor of HIV / AIDS transmission. CESACs cohort includes a high number of singles and serodiscordant couples. The increased incidence of STDs reveals irregular use of condoms.

Despite the practical advice on prevention of STDs during routine consultations, we have initiated a specialist in the prevention and management of STDs.

Objective

To evaluate the effectiveness of the syndromic approach for STDs in people living with HIV / AIDS

Methodology

Patients are seen in STDs consultation as a result of a recurrence of previously treated STDs.
The inclusion criteria were:
The persistent of vulval or recurrent urethral runoff
The presence of genital ulceration
The presence of scattered or fluorides condyloma

Result

From February 2007 to January 2008, we identified 108 cases of STDs. The average age was 31.1 years, of which women accounted for 92.6% against 7.4% of men. With regard to marital status, polygamous marriage was the most represented with 36.1% against 25.9% monogamous marriage. The rest of the cohort was divided between divorced (9.3%), single (15.7%) and widowed (13%).
Runoff vulval occupied first place with 65.6%, genitals ulcerations were 34.3%, and condylomas were 18.5%; The chancroid and genital warts were found in 2.8% of patients.
The national algorithm was used in the first intention. The syndromic approach has proved effective in 93.5% of cases.
In addition, the study found that 92% of women did not share their status with their partner; the condom was used in only 3.7% of cases.

Conclusion

Despite the high prevalence of STDs in people living with HIV the use of the algorithm coupled with the prevention of STDs is an effective strategy for taking proper STDs in resource-limited.
Keywords: STI -Syndromic Approach-PLWHA-Condom.

P2.1.8. FLUCONAZOLE SUSCEPTIBILITY OF CANDIDA SPECIES PRESENT IN THE ORAL MUCOSA OF HIV-POSITIVE SOUTH AFRICAN PATIENTS.

Pedro Miguel dos Santos Abrantes *- University of the Western Cape. 2: Prof. Patrick Bouic- University of Stellenbosch*

Human Immunodeficiency Virus (HIV) infects approximately 33 million people worldwide. Candida infections are known contributors to the higher morbidity and mortality rates seen in HIV-positive patients, especially in underdeveloped countries. Localized and systemic Candida infections are normally treated with fluconazole in public health facilities in South Africa. It is thought that the widespread and improper use of this drug over the past decade has resulted in an increase in fluconazole-resistant isolates.
One hundred and twenty eight (128) Candida strains isolated from clinical samples from HIV-positive patients were investigated for this susceptibility to fluconazole. Samples were collected from the patients oral mucosa using cotton swabs.
It was found that 57% of clinical samples showed resistance to fluconazole, and that resistance was widespread in all Candida species identified. C. albicans demonstrated the highest levels of resistance (60%), followed by C. krusei (50%) and C. dubliniensis (30%).
No correlations were seen between fluconazole resistance and factors such as gender and specific antiretroviral therapy. However, this study stressed the need for further investigation into factors such as widespread antifungal drug use, low therapeutic dosages and fluconazole-ARV drug interactions, which could all play a role in the progression and transmission of fluconazole-resistant isolates in immunocompromised patients.

P2.1.9. THE PREVALENCE OF ASYMPTOMATIC SEXUALLY TRANSMITTED INFECTIONS IN PATIENTS ATTENDING A SOUTH AFRICAN HIV TREATMENT CENTRE: IS THERE A CASE FOR SCREENING?

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Introduction
To determine the burden of sexually transmitted infections (STIs) among asymptomatic HIV-infected patients attending an HIV treatment centre in Johannesburg.
Methods
Patients attending a major Johannesburg HIV treatment centre, asymptomatic for urethritis, epididymo-orchitis, vaginal discharge or pelvic inflammatory disease, were screened for reproductive tract infections over 25 months. STIs were detected by multiplex polymerase chain reaction [Neisseria gonorrhoeae (GC), Chlamydia trachomatis (CT), Trichomonas vaginalis (TV) and Mycoplasma genitalium (MG) infections]. Microscopy of vaginal smears detected bacterial vaginosis (BV) and candidiasis (CA). All patients were screened serologically for syphilis (SY) and herpes simplex virus type 2 (HSV-2) infections. Patients were treated aetiologically for detected STIs and given partner notification slips. Fishers exact test (two-tailed) was used to determine associations.
Results
During the first 25 months of the service, 716 men and 1045 women were screened. The prevalence (%) of reproductive tract infections is presented below:

	Males	Females
GC	3.2%	4.3%
CT	2.2%	3.4%
TV	4.6%	10.0%
MG	8.4%	5.2%
BV	N/A	29.2%
CA	N/A	15.7%
SY	24.4%	24.0%
HSV-2	2.1%	1.8%
IgG	85.6%	91.6%

TPPA(+)
RPR(+)

[RPR = Rapid plasmin reagin test, TPPA = Treponema pallidum particle agglutination assay]

RPR titres ≥1:8 were observed in five men (0.7%) and five women (0.5%).

Detection of T. vaginalis infection and HSV-2 seropositivity was higher in females ($p < 0.0001$ and $p = 0.0001$, respectively) whilst M. genitalium infections was higher among men ($p = 0.0078$). There were no other significant gender associations with laboratory diagnoses.
Conclusions
Asymptomatic gonococcal and T. vaginalis infections are more prevalent than C. trachomatis infections among both men and women in this HIV-infected population. Low levels of active syphilis and high levels of HSV-2 infections were observed. In the absence of effective HIV vaccines and microbicides, STI screening of asymptomatic HIV-infected patients may enhance current HIV prevention strategies.

P2.1.10. DEFAULTER TRESSING OF PATIENTS ON ART REGISTERED IN THE RAINBOW AT MZUZU CENTRAL IN THE CITY OF MZUZU IN MALAWI

Clement Mtika *- Mzuzu Central Hospital. 2: Rose Dzimadzi - Mzuzu central Hospital 3: Temwanani Chinula - Mzuzu Central hospital 4: Duke Ceaser - Mzuzu Central Hospital*

Summary
Malawi started ARVs scale up programme in July 2004. The Rainbow clinic is the first ART CLINIC at Mzuzu Central Hospital in the Northern region of Malawi.. The clinic is the refferal for all the clinics in the Northern region of Malawi. Started registering patients on 4th July, 2004 and has now registered 6921 patients by 31st March 2009 and out of these 705 have not been coming to collect there drugs for three months(defaulted). By 30th June 2008 the clinic had registered 5984 patients and out of these 3488 (58.29%)were alive,493 defaulted (8.24%),1188(19.85%) transfer out,802(13.4%) died and 13(o.22%) stopped treatment.
And out of these defaulters 293(59%) were all from within the city of Mzuzu .

The Clinic organised a follow up activity of the defaulters within the city and the following were the findings 162 died(55.29%),17(5.8%) transfer out,11(3.75%) stopped,14(4.78%) alive and restarted treatment and 89(30.38%) failed to be followed up.

Our findings were
Some stopped after being prayed on,some stopped because they were using traditonal drugs, some died in the ward but the ward staff did not report to the clinic, some defaulted becasue they failed to disclose their sero status to the spouses more especialy those who had found new parteners.

We concluded that most defaulters had died 55.29% but did not report and not all defaulters were traced 30.38% due to relocation of patients address and residential area in the city.

Recommendations made were
1.There is need to have quarterly follow up of patients to avoid piling up of defaulters. 2. Church leaders need to be educated on implications of stopping ARVs. 3. Need to have proper communication mechanism between the wards and the clinic if one of the client dies in the ward.

P2.1.11. ATTITUDE AND PERCEPTION OF VOLUNTARY COUNSELLING AND HIV/AIDS TEST AMONG THE STUDENTS OF AHMADU BELLO UNIVERSITY MAIN CAMPUS , ZARIA KADUNA STATE NIGERIA

Bridget Chukwudera Okeke *- Center for the Right to Health Abuja Nigeria. 2: Mr Gazama Ishaku Usuma - lectruer Department of Sociology Ahmadu Bello University Zaria*

Background / Significant
As recorded in a research conducted on the assessment of HIV/AIDS and proposal for improved anti HIV/AIDS programme in ABU about 29 HIV cases were reported between 1993-1999 while from 2000 and 2005, out of 536 (28.04%) persons screened 363 cases were positive. About more than 99% of ABU students and staff have not bee screened as estimates range from 0.04% in 2003 to a maximum of 0.04% in 2005. In 2005, only 0.30% of the students were screened of which 0.05% tested positive (A.B.U Health Survey 2000-2006). A.B.U student and staff screened less frequently than non- students and staff (NON-SAS). Voluntary conselling and testing has been an important context for HIV prevention and Youth behavioral change. This study is significant in that it will bring into limelight the knowledge, attitude and perception of students of ABU, main campus Zaria towards voluntary counseling and testing of HIV/AIDS. It will also create awareness for the students in the benefit derived from voluntary counseling and testing of HIV/AIDS. The finding of this study will go a long way in helping the health planners, HIV committee of ABU, main campus Zaria and stakeholder in the fight against HIV to develop appropriate strategy that would be more useful to ABU Zaria. Also valuable and acceptable as well as youth friendly.

Objectives of the study

1. To examine the factors that discourage students of ABU main Campus, Zaria from responding to Voluntary Counseling and Testing
2. To assess the quality & accessibility of VCT in ABU community
3. To examine the subjective attitude towards Voluntary Counseling and Testing of HIV/AIDS by students of Ahmadu Bello University Zaria

4. To proffer solutions on how to encourage students of ABU to appreciate the need for Voluntary Counseling and Testing of HIV/AIDs.

Methodology

The sampling technique used for this study is cluster sampling. Cluster sampling refers to sampling technique in which samples are selected in two or more stages for the purposed of this study, ABU main campus Zaria was divided into nine clusters (ie facilities). This is necessary due to the fact that the study covered large geographical areas. The nine facilities were listed in alphabetical order and selection was based on the even numbers e.g 2,4 6,etc. To this end, four clusters emerged which comprises of facility of Arts, Environmental Design, Pharmacy and Social Sciences. Each of the faculty sampled has four departments, except Environmental Design, which has for departments. The researcher sampled all the departments this, bringing the numbers of departments sampled to seventeen in order to have ample population size for the study. Ten copies of the questionnaires were distributed to each department, making a total number of one hundred and seventy (170) questionnaires being administered.

The 170 questionnaires were drawn from the respondents in the following ways: serial numbers were written on piece of papers and the respondents from each department in the four faculties were asked to pick one piece each. The respondents who picked the even numbers were selected and filled the questionnaires accordingly. Four days were used for the administration of questionnaires, i.e a day was used for a faculty.

Finding

The result revealed that 101 (59.4%) students had never volunteer for HIV test and 57, (33.5%) had volunteered. 34(20.0%) were counseled before the test while 40(23.5%) are not counseled. However, 92 (54.1%) are willing to go for HIV test, 53 (31.2%) are unwilling. Only 10 (5.9%) of the students accepted that they are positive out of which 43 (25.3%) indicated that they are negative. Consequently, about 81 (47.6%) of them are eager to know their HIV Status. A cross Tabulation of variables to know if there are relationships between the variable of study: Distribution of respondents and unwillingness to go for HIV/AIDS test

Calculated x2 = 26.427
df = 15
Table x2 = 24.996
Alpha = 0.05

At the alpha level of 0.05 and the degree of freedom of 15, the calculated x2 of 26.427 is higher than the table x2 of 24.996. This means that there is a significant relationship between respondents tribes and unwillingness to go for HIV test. This implies that students from the other tribes like (Idoma, Ebira, Igala) etc are not willing to go for HIV test unlike the Igbos, Hausa and Yorubas.

Knowledge /Contributions

Attitude and perception towards voluntary counseling and HIV/AIDs test is quite positive but many students do not realize the actual consequences and are unable to appreciate the fact. There is counseling problem in ABU clinic otherwise known as Sickbay. Most of the students, who avail themselves for the test, were not counselled.

The non confidentiality of health workers is an important factor that discourage students of main campus ABU Zaria from not availing themselves for Voluntary Counselling and Testing. The university authority should provide a quality service and encourage students to accept the need for Voluntary Counselling of HIV/AIDS test. Test Kits should be made available free of charge in all the university clinics. Counsellors should be trained in large numbers and posts them to universities and secondary schools.

P2.1.12. DELAY IN HIV DIAGNOSIS AMONGST SUB-SAHARAN BLACK INDIVIDUALS IN SOUTHAMPTON, UNITED KINGDOM: ARE THINGS GETTING ANY BETTER?

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Objectives

To assess the stage and degree of delay in HIV diagnosis amongst new HIV positive sub-Saharan black attendees at a large UK inner city unit, (1994-2009).

Background

It is widely acknowledged that the early diagnosis of HIV provides benefits to both the individual and community. However, 1/3rd of UK HIV positives remain undiagnosed. Despite education campaigns amongst medical staff, opportunities are missed to make timely HIV diagnoses. Although black Africans comprise a small proportion of the UK, they represent almost half of all new HIV diagnoses. Many of these individuals are students, economic migrants and asylum seekers whose status for long-term residence and HIV care may be in some doubt at the time of initial diagnosis.

Method
We reviewed the records of 624 HIV positive patients in the unit. Of the 158 black Africans, we determined their: arrival date in the UK, initial diagnosis date and presenting CD4+ counts. Comparing the stage of HIV presentation to time of diagnosis, we looked for whether time trends exist between those presenting in the 1990s to more recently.
Results
Preliminary data suggest that during the period of study, the average time spent within the UK before initial HIV diagnosis may have lengthened. However, HIV is being diagnosed at an earlier stage (not requiring HAART, higher CD4+ counts and with limited or no symptoms).
Conclusion
Factors influencing migration to the UK are complex and rapidly evolving. It is of concern to healthcare providers that once patients arrive in the UK they should not feel reticent to come forward for diagnosis or HIV therapy. It would seem that despite diagnoses being made earlier within the natural history of a patients disease, they are being made after considerably longer time spent within the UK. Further work is required to elucidate the barriers to earlier diagnosis.

P2.1.13. SEROPREVALENCE OF HUMAN IMMUNODEFICIENCY VIRUS AND SYPHILIS

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Transfusion of blood and blood products is no doubt a life saving measure but at the same time is an important mode of transmission of infection to the recipients. Syphilis seropositivity varies from 0.8% in voluntary donors to 15% in commercial paid donors. Since HIV infection has been reported high in this coastal area, routine screening is mandatory; still pose a threat as donors may be in window period. This study is aimed to asses the prevalence and trend of HIV and syphilis over the past 4 years (2005-2008) among blood donors in a hospital situated in rural India.

A total of 142812 serum samples were screened for HIV 1 & 2 and syphilis respectively.
HIV screening was done by 3 rd generation ELISA for initial 2 years (J Mitra, India) and later half by 4th generation ELISA(Biorad, France) with reported sensitivity and specificity of 100% and 99.98%.Syphilis serology was done using Span diagnostic kits for RPR and Biorad kits for TPHA.
Of the total 142812 serum samples of blood donors 46.4% replacement donors and 63.4% voluntary(student population and blood donation camps). A total of 73 (0.05%) seropositive for HIV and 67(0.07%) for syphilis. HIV seropositivity ranged from 0.29% to 0.11 and syphilis serology ranged from 0.24% to 0.09% over 4 years showing a decline.0.04% of RPR positive samples were confirmed by TPHA.

To conclude there is low prevalence of HIV and syphilis in donors in this area probably because of careful selection of donors. Decline in the seroprevalence of HIV from 2005-08 could be due to awareness programs and change in the attitude of people. Screening using 4th generation ELISA has advantage of better transfusion safety.

P2.1.14. ACCEPTABILITY OF SHORT -COURSE AZT PREVENTION REGIMEN BY HIV INFECTED PREGNANT WOMEN; SHOULD VCT IN THE ANTENATAL SETTING BE MODIFIED

Aziz Ssali Abdulah *- Positive Men's Union. 2: Dan Mubiru - Positive Men's Union 3: Rose Namugenyi - Entebbe Infectious Disease Insitute*

Background
Acceptability of VCT by pregnant women is critical in the context of trials asseing interventions to reduce mother-to-child trasmission (MTCT) of Hiv. we studied the logistics and uptake of short- course oral AZT regimen by Hiv- infected pregnant women after VCt in rural areas of uganda.
Methods
From june 2006, apilot project on the feasibility of short - course AZT was launched in an antenatal clinic in luwero Uganda, all pregnant women hear a 15 minute talk by clinic nurses about MTCT of Hiv and are offered voluntary pre- and post-test counseling by lay community volunteers, counseling Hiv-positive women are offered AZT (300 mg twice) from 36 gestation until labor, one tablet at onset of labor, and then every 3h until delivery. Hi-positive women are counselled and supported on thier choice of infant feeding.

Results
Over 6 month period, 1105 antenatal women were offered VCT, 247 (22%) underwent pre-test counselling and 206(18%) agreed to be tested. among these treated, 78 (38%) were Hiv-positive; as of december 30,2006, 40(62%) women consented for AZt; 17 women have completed the regimen, 5 are currently receiving the drug. 7 are eligible to start AZT and 11 women dropped out of the study (preterm births) incorrect dates, failure to notify nurses during labor, and non-compliance). of the 17 women who received AZT, 12 opted for formula feeding and 5 women chose breastfeeding.
Conclusion
Hiv prevalence in this setting is estimated at 30% of 332 projected Hiv infected women seen, only 40(12%) women actually received AZT the major barrier appears to be entrance into counselling. when counselled, most Hiv-infected pregnant women chose to receive AZT prophylaxis. new appraches to antenatal Hiv counseling and teating are urgently required to improve future accptance of VCT and successful implementation of antiretroviral pro-phylaxis.

P2.1.15. WHAT HAPPENS IN A RURAL SOUTH AFRICAN MEDICAL WARD? ACCESS TO HIV TESTING AND TREATMENT FOR THE ACUTELY UNWELL

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Background
The antiretroviral (ARV) clinic in Taung opened in 2004. Outpatients flock in whilst, down the corridor, the medical ward admits many with advanced HIV.
In very advanced disease, patients may become too sick to benefit from ARVs. However, prompt initiation of ARVs is encouraged in opportunistic infection.
Method
In 2006 we studied admissions to the female medical ward noting knowledge of HIV status, progress through voluntary counselling and testing (VCT) and referral for treatment. We reported to colleagues and implemented changes. Further data were collected in 2009.
Results
In one week in June 2006, 35 patients were admitted. Mean age 44y (19-88). HIV status was discussed by a clinician in 29/35 (83%) cases.
24/35 (69%) were designated HIV related admissions based on test or clinical opinion. Mean age 35y (24-57).
2 were taking ARVs, 13 were known HIV positive but had not accessed treatment, 2 tested positive, 2 were not ready, 2 died before testing, and 3 were discharged before testing.
Mean time from requesting VCT to results was 6 days (3-7).
15 patients had CD4 counts: n=10 <200; n=3 200-350; n=2 >350.
6 patients had WHO stage 4 diagnoses
13 were eligible for ARVs.
Mean time from eligibility to ARV appointment was 63 days (36-150).
In May 2009 there were 42 admissions in one week. We have data on 20. HIV status was discussed by a clinician in 11/20 (55%). 12/20 (60%) were HIV related admissions. Mean time from VCT request to result was 1 day and to ART clinic appointment was 14 days.
Conclusion
The majority of admissions are HIV related. Patients present without knowledge of their status or having accessed treatment. Since 2006, VCT and ART referrals have become faster. However, HIV status is less commonly explored and late diagnosis of HIV remains a problem.

P2.1.16. AN INVESTIGATION OF HIV-RELATED RISK PRACTICES AMONG FEMALE STI CLINIC ATTENDER AT UNIVERSITY TEACHING HOSPITAL OF LUSAKA.

Peter Yassa *- STI National Lab of Lusaka/Zambia. Malibata C and Anna Mayer.*

Objective
The aim of this study is to investigate the current HIV-related risk practices that female STI Clinic attendees engage in with a view to inform patient counseling interventions.
Methods
A quantitative cross-sectional study was conducted among patients seeking health care at UTH STD clinic. A structured, interviewer-administered questionnaire was used, based on the findings of a previous study and

theoretical underpinnings suggested by the Social Cognitive theory of Bandura. Both the questions and the statements were developed in the broad categories of bio-demographics, sexual practices, and access to STI services, current STD, partners and partner characteristics, perceived HIV susceptibility and HIV severity and referring partners for STD treatment.
Frequencies were calculated for all items to address the objective of the study. To assess the determinants of risk practices and the predictive power of the variables, a forward stepwise logistic regression analyses was conducted.

Results

Unmarried women (63, 2%, p ≤0,047) and poor people (p ≤ 0,016) are more exposed to contract sexually transmitted infectious and HIV in Lusaka.

Significant difference between the use of a spray in/ on the sex organ (83, 20%, p≤0,009) and the use of any products to dry out the vagina for dry sex and the acquisition of HIV/STIs.
We found in our study that respondents had the skill of the use of condom with the partners that they know well (p≤0,046).

The respondents had also the skill of to persuade the use the condom even if they don't want too (p≤ 0,006).There are empowered to refuse to have sex with someone they very well(p≤0,003).

Conclusion

Unmarried women and poor people are exposed to contract STIs and HIV.
Dry sex is associated with the acquisition of HIV in Zambian women.
Zambian women had skill to persuade the partners whom they know well to use a condom and there are empowered to use the condom to the partners who don't want.

P2.2.1. UPTAKE, FEASIBILITY AND COST-EFFECTIVENESS OF INTEGRATING SYPHILIS SCREENING INTO PREVENTION OF MOTHER TO CHILD TRANSMISSION (PMTCT) PROGRAMS IN UGANDA

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Introduction

Syphilis is a major cause of perinatal morbidity in Uganda. Although prenatal screening for syphilis is a national policy, implementation rates are low because of supply chain problems and lack of laboratory services that can offer screening in rural areas. Rapid syphilis tests that are easy to use with minimal training, can be transported and stored at room temperature offer possibilities for increasing access to screening. SDI is collaborating with the EGPAF to determine if syphilis screening using these rapid tests can be integrated into PMTCT programs. Since the program's inception, the Foundation has provided over 6.8 million women with access to services to prevent transmission of HIV from mothers to babies. The Foundation works with local partners to offer HIV counselling and testing to pregnant women and ARV prophylaxis to HIV-positive pregnant women.

Objectives

To determine the uptake, feasibility and cost-effectiveness of integrating syphilis screening into Prevention of Mother to Child Transmission (PMTCT) programs for HIV at select urban and rural settings in Uganda.

Methods

Advocacy and stakeholders' meetings were held to inform the Ministry of Health (MOH) about the performance and user characteristics of rapid syphilis tests and their potential utility. With approval from the MOH, the project will be implemented in Jinja District and Mulago Hospital in Kampala. Health care workers will be trained to perform the test and provide Same-Day Testing and Treatment (STAT). Training will also be given on quality assurance and procurement and stock management to ensure reliable and consistent supply of tests, consumables and drugs. A baseline survey will be carried out to collect data on the proportion of women screened and treated, and proportion of babies born from syphilis-infected mothers treated in the targeted health centers. Data will also be collected on the proportion of women tested and treated, and frequency of stock out for tests, drugs and other supplies. During the implementation, data will be collected for monitoring and evaluation and cost of the program. The final phase will be spent on data analysis and dissemination of results to stakeholders.

Results

The baseline survey results will be presented to show where problems with logistics need to be overcome if syphilis services were to be successfully introduced. Preliminary results on introduction of syphilis testing into

PMTCT programs at Mulago hospital, and the incremental personnel and costs to the program will be presented.

P2.2.2. DETECTION OF A2058G POINT MUTATION ASSOCIATED WITH AZITHROMYCIN RESISTANCE IN TREPONEMA PALLIDUM USING A TAQMAN-BASED REAL-TIME DUPLEX PCR ASSAY

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Objectives
To develop a TaqMan-based real-time allelic discrimination assay for the detection of the point mutation that has been associated with azithromycin treatment failure in T. pallidum.
Methods
The etiology of genital ulcer disease was determined by a real-time multiplex PCR assay, and the A2058G point mutation in the 23S rRNA gene associated with azithromycin resistance in T. pallidum was detected using a real-time allelic discrimination format. The genotyping results were compared to a previously described real-time PCR assay using fluorescence resonance energy transfer (FRET) probes and melting curve analysis.
Results
The performance of TaqMan-based real-time duplex PCR assay to detect point mutation associated with azithromycin resistance in T. pallidum is equivalent to the real-time PCR using FRET probes and melting curve analysis. For ulcer specimens tested positive for T. pallidum, both assays identified 38 specimens with azithromycin-susceptible genotypes and 43 with resistant genotypes. In addition, a total of 107 ulcer specimens tested negative for T. pallidum, none were reactive by both assays. The TaqMan assay does not cross amplify DNA from T. denticola, T. phagedenis and T. refringens, but is unable to discriminate among T. pallidum subspecies.
Conclusions
Not all real-time PCR instruments are suited for detecting FRET probes using LCRed640 or are capable of performing melting curve analysis. TaqMan-based real-time allelic discrimination assay offers an alternative to detect point mutation associated with azithromycin resistance in T. pallidum strains that can be easily optimized and adapted to real-time PCR instruments using a 96-well plate format for screening purposes. The TaqMan-based real-time allelic discrimination assay can also be incorporated into a multiplex format to simultaneously detect T. pallidum and azithromycin resistance genotype in genital ulcer specimens.

P2.2.3. A COMPARISON OF MOLECULAR TECHNIQUES FOR DETECTION OF NEISSERIA GONORRHOEAE, CHLAMYDIA TRACHOMATIS AND TRICHOMONAS VAGINALIS IN URINE SPECIMENS FROM MALES WITH SYMPTOMS OF URETHRITIS

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Background
Sexually transmitted infections (STIs) caused by Neisseria gonorrhoeae (NG), Chlamydia trachomatis (CT) and Trichomonas vaginalis (TV) are common in both developing and developed regions of the world. Correct treatment and management of these infections depends on rapid, highly sensitive detection assays.
AIM: This study compared molecular methods for the detection N. gonorrhoeae. C. trachomatis and T. vaginalis in urine specimens from men with urethritis.
Methods
Eighty-two urine specimens were collected from consecutive men with symptoms of urethritis to a private general practitioner in Silverton, Pretoria, (August 2007- June 2008). A meatal swab was also taken for the assessment of urethritis. The urine samples were tested for (NG) and (CT) using the Gen-Probe APTIMA Combo 2 and the Roche Cobas Amplicor CT/NG assay. The two assays were compared to the culture of NG (gold standard) and presence of intracellular Gram-negative diplococci on Gram stained urethral smears. For the detection of TV a transcription mediated amplification-based assay (TMA), (Gen-Probe) and Real time PCR (Q PCR) was performed.
Results

Sensitivities and specificities of the APTIMA and Amplicor assays for NG was 95% and 93% versus 72% and 93%. For CT: Sensitivity (90%) and specificity (96%) of APTIMA and that of Amplicor 75% and 99%. TMA detected eight positives (9.8%) TV and RT PCR 7 (8.6%).T. vaginalis was detected equally in the groups with and without urethritis by the TMA assay.

Conclusion

The Gen-Probe APTIMA Combo 2 and TMA assays proved to be highly sensitive and specific assay for the detection of NG, CT and TV in urine specimens from men.

P2.2.4. COMMUNITY ADOLESCENT SEXUAL HEALTH SERVICES NOT JUST ABOUT SEX.

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Background

The sexual health of adolescents in the UK is poor, with disproportional rates of sexually transmitted infections (STIs) in young people (YP) compared with older age groups and the highest teenage pregnancy rates in Europe. The UK National Strategy for Sexual Health (2001) recommended provision of sexual health services in primary care and community settings. Since 2006, a weekly walk in YP (under 20 yrs) sexual health service was established in a community youth setting.

Methods

Using the confidential clinic database, a retrospective review was preformed between August 2006 and April 2009, examining patient demographics, psychosocial issues and risk taking behaviours in YP attending compared with a similar service in a GUM clinic.

Results

Patient demographics: 131 patients attended with 319 consultations.
Mean age 17yrs
Female 66%
Black Ethnicity 61%
Psychosocial factors:
37% of patients were from single-parent families
17% were not living in the parental home
8% had contact with social services
5% with the youth offending team
21% were not in education, employment or training.
Risk taking behaviour:
49% of patients reported coitarche before 16 yrs
13% reporting more than 10 lifetime partners
7% reported incidences of non-consensual sex
26% reported recreational drug use.
48% of females had at least one termination of pregnancy, 6% were mothers.
12% reported mental health issues.
Reasons for attendance:
41% sexual health screen
25% contraception
16% follow up/results
12% advice/information
6% pregnancy test (Of 47 pregnancy tests performed 9% were positive)

Conclusion

This group of YP, illustrates high rates of non-consensual sex, recreational drug use, mental health issues and teenage pregnancies within community based services. Patient comparisons will be made with a similar sexual health service provided within a hospital based GUM clinic. Linking sexual health services to community based YP services provides a valuable integrated service to young people who may not attend hospital based services.

P2.2.5. ATYPICAL DERMATOLOGICAL MANIFESTATION OF SYPHILIS (CASE REPORT)

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Syphilis with its stages of development has various kinds of skin manifestations. Theyve already described by different authors and are wildly known among STI specialists. In spite of this there are a lot of cases of syphilis which skin eruptions deserve the special attention, because of their atypical skin manifestations.
The aim of our study was to describe one case of syphilis with atypical skin eruption.
Pregnant women 27 years old age had complaints on skin itching and eruption with punctulate exudative oval and round multiple elements in the extremities and the body within 2 months. She was under the anti atopic eczema treatment. After the 1,5 month unsuccessful therapy she was examined on syphilis by laboratory (RPT and TPHT) tests which were positive; there was noted the other symptom of syphilis in genital side too. Therefore there was diagnosed the secondary syphilis, and patient was treated appropriately. After the first injection of Benzatyl penicillin - the eruption was disappeared and reduced the feeling of itching. The above mentioned signs and symptoms have never arisen since that.
This clinical case can lead us to the certain conclusion that syphilis skin manifestation may vary in a wide range and sometimes is presented as classical dermatological disorder. Therefore in cases of unsuccessful therapy of the certain dermatoses we have to suspect on atypical clinical manifestation of syphilis and examine patients by laboratory tests.

P2.2.6. PREVENTING CONGENITAL SYPHILIS: IMPLEMENTING RAPID SYPHILIS TESTING TO IMPROVE ACCESS TO SCREENING FOR PREGNANT WOMEN IN PERU

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Background
Congenital syphilis and syphilis in pregnancy in Peru persist as important public health issues, and improvement of screening/treatment for pregnant women remains challenging. Syphilis rapid testing (SRT) allows simple and immediate diagnosis and treatment at a single clinic visit and could increase screening and treatment coverage and thereby reduce the incidence of stillbirth and congenital syphilis and generate in the long term a sustainable cost effective intervention.
Aims and methods
We propose to test the feasibility, performance, impact and cost-effectiveness of implementing SRT in an underserved urban area at a maternity hospital and a network of peripheral health centers offering prenatal care in Lima, Peru. Rapid tests will be offered at first prenatal visit, at delivery (integrated with HIV rapid test) and within miscarriage/abortion services. Endpoints will include changes in the proportion of women/partners screened and treated for syphilis, and incidence of congenital syphilis and stillbirths from baseline to 14 months. We plan to determine the diagnostic accuracy in terms of sensitivity, specificity, positive and negative predictive values of the SRT compared with the combined gold standard (RPR, plus TPPA or FTA) for detection of syphilis in pregnancy and implement a QA/QC system.
Results
Data from the baseline pre-implementation evaluation revealed limited coverage of the screening and treatment services for maternal syphilis. For the implementation we expect to screen 12,000 women at prenatal care and 8400 women at delivery or miscarriage services at the maternity hospital. For the evaluation of the implementation of SRT at a network of peripheral health centers, we will intervene 15 relatively isolated health centers and health posts serving between 2500 to 3000 pregnant women annually.
Conclusions
Results so far showed the need for improvement of quality and coverage of screening services for syphilis, which may offer opportunities to control congenital syphilis in Peru.

P2.2.7. EPIDEMIOLOGICAL CARACTERISTICS OF SYPHILIS IN VOJVODINA IN THE LAST THREE DECADES

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Syphilis is a multistage and systemic disease still present in the whole world. Compared to the prior period, at the beginning of 21st century increase in syphilis infections is detected in certain countries. In the region of Vojvodina (north part od Serbia) syphilis was more rarely registered in the last 30 years than it was the case for the period before, but this disease still takes an important part among infectious diseases in this region. In the last 30 years the average morbidity rate was 1,09/100.000 residents. The maximum morbidity rate was in 1980 (3,41/100.000), and the minimum in 1991 (0,24/100.000). The relation between infected men and women in this period was 2,5:1 and the highest incidence was in age group between 20-29 years. Concerning the decrease of standard of living, aggravated socioeconomic stuation and migration in this region at the end of last and beginning of this century, it is hard to believe that official data showing a decreased number of sick are real indicator. That is why revealing and registration of those sick of syphilis infection are very important tasks in the time that is coming.

P2.2.8. EXPERIENCE OF INTERNATIONAL COLLABORATION (EASTERN EUROPEAN NETWORK FOR SEXUAL AND REPRODUCTIVE HEALTH / EE SRH NETWORK) IN OPTIMIZING AND QUALITY ASSURANCE OF THE MANAGEMENT OF SEXUALLY TRANSMITTED INFECTIONS IN GEORGIA

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Background
Accessibility and accordingly usage of evidence-based international guidelines and standards, including those describing the ideal management of STIs, in Georgia are limited. National algorithms and technologies are not up-to-date, which frequently leads to inadequate diagnosis, treatment, and STI surveillance. The main aim of this paper was to report the developments within the STI management in Georgia as a result of international collaboration.
Methods
Participation in the project International network for Sexual and Reproductive Health in East-European Countries, supported by the Swedish Development Agency (SIDA) through The East Europe Committee of the Swedish Health Care Community (SEEC).
Results
As a result of the 3.5-year ongoing EE SRH Network Project and collaboration with the Georgian Association of Dermatovenereologists (GADV), international consensus guidelines for EE SRH countries regarding the laboratory diagnosis of syphilis, gonococcal and chlamydial infections were nationally adopted, legalized and published with the local financial support from GADV. Guidelines national approval takes place during the GADV meetings, with representatives from the Ministry of Health present. Recently, guidelines for the diagnosis of bacterial vaginosis, trichomoniasis, M genitalium and genital herpes infections have also been presented for the national specialist forum for adoption. Within the project, primary steps towards the implementation of a new standardized system for electronic surveillance of communicable diseases and surveillance of antimicrobial resistance in gonococci have been initiated.
Conclusion
The harmonization with international, evidence-based and quality assured standards of STI management is successfully accelerating in Georgia. An interest on the specialist level and support from the Health Care administration on the highest national level exist, which are of highest importance. The project presents an

example of a unique international collaboration, when the evidence-based internationally acknowledged approaches are after national adoption implemented into the health care of a specific country.

P2.2.9. SEXUALLY TRANSMITTED INFECTIONS IN TANZANIA: WHERE ARE WE AND WHAT NEXT?

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The Data on STI Prevalence in Tanzania remains very scanty because STI surveillance is hardly given high priority amidst many other life threatening diseases such as Malaria, Gastroenteritis and other infectious diseases. The few available data are just a tip of an iceberg and may not be representative of the population because they are mainly hospital – based. Despite these limitations, STIs in Tanzania and their complications rank in the top ten disease categories for which adult seek health care. Majority of STIs in women (up to 70% of women) remains asymptomatic and see no need to seek for health care, yet they may all cause serious complications such as pelvic inflammatory diseases (PIDs), cervical cancer, ectopic pregnancy, infertility etc. The new borns are also at risk of being blind from opthalmia neonatorum. The STI doctor in Tanzania is often faced with limited resources in launching health intervention programmes. Moreover, the current efforts to contain the spread of STIs in this country remains insufficient because the behaviour change is complex, Health seeking behaviour remains weak and several methods of prevention against STI are inadequate. An interactive relationship that exists between STIs and acquisition of HIV can not be underestimated in these Sub-Saharan countries that harbor about 70% of all new HIV infection globally. In Tanzania, community – based programs emphasizing syndromic treatment is reported to have resulted in a significant decrease in HIV incidence.
The main STIs pathogens that are common in this country are therefore addressed and the STI care management integrated in primary health care and other reproductive health care services are also discussed.

P2.2.10. TRADITIONAL STI IN AN POQUE OF HIV EPIDEMIC IN UKRAINE

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Objectives
To evaluate trends in STI/HIV in Ukraine and designate vulnerable population groups. To estimate STIs role in sexual transmitting of HIV for health care interventions.
Methods
Reported data from STD clinics. STI/HIV frequency in 55 escort female sex workers.
Results
Trichomonas vaginalis rate has slightly fallen from 330.8/105 in 2000 to 245.3/105 in 2007. Gonorrhea and syphilis has been declining - (52.7 to 29.8) and (91.5 to 29.9) consecutively. Cases of congenital syphilis were 63 in 2000 and 19 in 2007. Chlamydia rates rose (67.5 to 75.7). Genital herpes onset rate was 16.6 in 2003. Since 2004 herpes is not reportable in Ukraine. There was a dramatic 3-fold increase in the incidence of HIV (12.6 to 37.8). In 2008 18 973 new HIV infections have been reported. The proportion of HIV acquired through injecting drug use is 41.9%. STI markers have been found in 52.7% of 55 FSW, 7.3% were HIV-positive. The latent syphilis was diagnosed in 9.1%, gonorrhoea - in 3.6%, Chlamydia in 29.1%, bacterial vaginosis - in 38.2% and T. vaginalis - in 29.1% FSW. In 44% two or more sexual infections was found.
Conclusions
STIs are common causes of morbidity in Ukraine which enhance the spread of HIV. There is an increase in transmitting HIV through sexual contacts. HIV is spreading from the core groups, with high-risk behaviour, to the general population. Ukraine needs urgent comprehensive programmatic and policy interventions concerning sexual transmitting of HIV.

P2.2.11. STIS PREVENTION INTERVENTION: SUCCESS STORIES OF YOUTH FRIENDLY STIS COUNSELING CENTERS IN NORTHERN NIGERIA.

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In Nigeria young people range: 12- 30 years old largely contribute over 60.1% of the total population. And one of the emerging adolescent Reproductive issues in Nigeria is STIs. Poor information leads to STIs, unplanned pregnancy, abortion and HIV and AIDS. In 2007 youth survey of APYIN (YSA) reported that STIs such as Gonorrhea, syphilis and chancroid are the most infections linked to youths.
Survey showed young people at 15 to 25 years has contracted STIs (Gonorrhea) through unprotected sex. The same report also showed that few young people know about the causes, signs and symptoms of STIs. 15% of males and 10% of females demonstrated poor knowledge on STIs issues, but proved a better knowledge in HIV.
In 2008, Association of Positive Youth in Nigeria (APYIN) established a model STIs intervention counseling centre to share, explore and mainstream STIs issues with young people in 6 Northern States of Nigeria. This supported in school and out of school youths.
In 2008/2009,Oxfam Novib and Christian Aid UK funding APYIN to raise awareness at the rural areas through its 4 ps campaign initiative- positive peer prevention plus for STIs prevention, management, care and support within the friendly centers.
Achievement? IECs/radio programmes on STIs in differently developed, online interactive platforms on personal STI related issues discussed; on line and membership STIs prevention manuals developed. Over 3,874 youths reached, SRH improved and more.
Methodologically, qualitative research, interview were adopted for this findings.
The findings showed that youths prefer more confidentiality, safety environment, privacy, trust and competence in order to assess STIs services.
This study recommends establishment of more centers in conjunction with private sector and government efforts. Train more than 200 health providers and peer health educators in schools, communities, churches and establish local funding systems in order to sustain the gains already made.

P2.2.12. PREVALENCE RATE OF SEXUALLY TRANSMITTED INFECTIONS AND HIV IN FEMALE PROSTITUTES IN LAGOS, NIGERIA.

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Objectives
Globally, female prostitutes are generally considered to be at high risk of STIs/HIV infections. This study aimed to determine the prevalence rate of STIs/HIV, risk factors that affect STIs/HIV infections in Nigerian prostitutes.
Methods
450 prostitutes were recruited. Ages ranged between 15 35 years. They had pre and post-test HIV counseling. Each participant completed a questionnaire to provide demographic data, information on sexual behaviour, knowledge of STI/HIV, knowledge/use of contraceptives and douching. Cervical swabs were processed using standard microbiological methods while others were used to detect chlamydia antigen using Quick Vue chlamydia test kit. Wet preparations were made from HVS to detect yeasts and trichomonads. Oral mucosa test was used for HIV screening. Reactive samples were screened with ELISA and confirmed with Western Blot. Blood samples were screened for syphilis antibodies using RPR kit, positive samples were confirmed with TPHA.
Results
Pathogens were identified from 249 samples. Bacteria (13.3%), Candida spp. (32.5%), HIV-1 (31.0%) and Trichomonads (23.2%). The prevalence of STIs/HIV amongst the population of prostitutes studied was 55.3%. Age distribution of STIs/HIV shows that age range 26-30 years followed by age range 21-25 has the highest infection rate of 64.5% and 57.3% respectively. The prevalence rate of HIV infection in those involved in anal and oral sexual practices were statistically significant ($\chi 20.05=0.0000$). HIV (32.3%) was most prevalent infection seen on prostitutes that practiced douching.

Conclusion
Sexually Transmitted Infections and HIV were high amongst the population of prostitutes investigated. Prostitutes constitute an important reservoir of HIV/STIs infection for transmission to the general population through sexual networking. Therefore, information on the need to access health programme and appropriate education on how to use condoms properly so as to maximize benefits should be made available to them. This will go along way in reducing the burden of STIs/HIV in the prostitutes.

P2.2.13. SENTINEL SURVEILLANCE OF SEXUALLY TRANSMITTED INFECTIONS IN FINLAND

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Background
Data reported on STIs to the National Register is scanty, and condyloma and genital herpes are not included.
Objectives
To collect more detailed data by the help of sentinel surveillance system founded in 1995 and containing 229 965 visitors.
Methods
A 21-point questionnaire was filled by every visitor in the venereal out-patient clinics (n=5) and by those having STIs in the other clinics (n=7).
Results
Chlamydia was found in 10.2 % (23 487), condyloma in 7.4 % (17 034) and genital herpes in 3.1 % (7129). Gonorrhea (804), syphilis (352) and HIV (154) were rather uncommon. Most (>93 %) chlamydia infections were endemic. The mean age of chlamydia patients was 26.4 years in men and 23.3 years in women. The time from contracting chlamydia to diagnosis was unchanged during the 12-years, i.e. 30 days in men and 40 days in women. During this period one third of the chlamydia patients had an intercourse with a second person. The number of annual partners increased in all age groups during the study and mostly in women below 25 years of age. Of these 10 % had 5 or more annual partners at the beginning and 22.3 % at the end of the study. The use of p-pills or IUD was 56.4% at the beginning and 43.9% at the end of the study. The alcohol use increased from 28.1 % to 36.1 % in women whereas no change (46.8%) occurred in men.
Conclusions
The present study shows that chlamydia, condyloma and genital herpes are common and mostly endemic infections in Finland. In chlamydia the time to the diagnosis is continuously long and one third of the patients could have transmitted the infection to a second partner. High risk for transmission of STIs is also favoured by significantly increased number of annual partners particularly in young women.

P2.2.14. DETECTION OF MYCOPLASMA GENITALIUM, MYCOPLASMA HOMINIS, UREAPLASMA UREALYTICUM AND CHLAMYDIA TRACHOMATIS IN MEN PRESENTING WITH NGU IN SINGAPORE

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Introduction
Chlamydia trachomatis (CT) is known to cause up to 50% of non-gonococcal urethritis (NGU) and Mycoplasma genitalium (MG) and Ureaplasma urealyticum (UU) have been shown to cause an additional 10 to 20%. Up till recently, these latter two organisms have not been easy to isolate. Recent advances in diagnostics have enabled the use of PCR to detect MG, Mycoplasma hominis (MH) and UU in urine from men presenting with symptoms of urethritis. Using PCR, some studies have shown an association of MG and UU with acute non-chlamydial NGU.
This study aimed to determine the role of MG, MH, UU and CT in men presenting with acute NGU in Singapore.
Methods
Male patients with symptoms and a positive urethral swab microscopy confirming NGU were recruited into the study. Urine was collected (after holding urine for at least 4 hours) and tested by PCR for CT, UU, MH and

MG. Patients with confirmed NGU were treated with doxycycline 100mg bd for 1 week and a microscopic test of cure was performed at 2 weeks with a PCR test of cure at 4 weeks.

Results

96 patients diagnosed with NGU were recruited into the study. MG was detected in 11.5 %, MH in 5.2%, UU in 2.1% and CT in 38.5% of patients. Four patients (4.1%) were co-infected, with 2 patients having both CT and MH, 1 patient having MG and MH and 1 patient having both MG and CT co-infection.

Discussion

This study confirms that MG has a significant role to play as a causal organism of acute NGU. These results from our Asian population are similar with that found in studies conducted in Caucasians. CT was the causal organism in 38.5% of our patients. This study also highlights a possible role of MH and UU as possible pathogens in NGU.

P2.2.15. ELIMINATION OF CONGENITAL SYPHILIS FROM HAITI USING SAME-DAY TEST AND TREAT (STAT) SYPHILIS SCREENING FOR ALL PREGNANT WOMEN.

Linda Severe *- Marc Germain, Daphne Benoit, Maryam Auguste, Dan Fitzgerald, Jean William Pape, GHESKIO, Port au Prince, Haiti*

Background

In Haiti, 4% of pregnant women have latent syphilis infection and congenital syphilis is a leading cause of perinatal death. A previous demonstration program using the Rapid Plasma Reagin (RPR) test and a Same-day Test and Treat (STAT) strategy to screen pregnant women have decreased congenital syphilis rates by 75% at a cost of $250 per child saved. However, the RPR reagents require refrigeration and can only be used with serum, limiting its utility to centers with a source of electricity. Rapid syphilis tests that can be used at room temperature and show acceptable performance with whole blood are now commercially available.

Methods

We propose, in collaboration with the Haitian Ministry of Health (MOH), a national scale-up of STAT prenatal screening using rapid syphilis tests to eliminate congenital syphilis in Haiti. A national stakeholders' meeting was held to obtain buy-in from stakeholders including the World Health Organization, other international and local partners and to make plans to move forward.

Results

The MOH and all the stakeholders agreed to make the elimination of congenital syphilis a national priority. It was agreed that the STAT strategy is an essential tool to achieve this goal. Plans to implement the STAT strategy include increasing access to prenatal screening using rapid syphilis testing at all levels of the health care system and giving same day treatment with benzathine penicillin to all women who test positive. Laboratory and clinical training curriculum are being prepared, a QA/QC program established, rapid syphilis test and penicillin supply chain is being integrated into the HIV program supply chain, and a monitoring plan developed.

Conclusion

A national scale up of STAT syphilis screening strategy will begin in Haiti in 2009 with the goal of eliminating congenital syphilis.

P2.2.16. HPV AND MALES IN THE CONTEXT OF THE HPV VACCINE –WHERE ARE WE NOW?

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Over the last decade significant progress has been achieved in the investigation of the HPV prevention. Approaches to this include prophylactic HPV vaccines for both men and women. This should be the only way to significantly decrease the numbers of infected persons. The results of the most recent studies have clearly shown that a quadrivalent HPV vaccine (6, 11, 16, and 18) was generally well tolerated, induced high-titres of serum antibodies to HPV types, and effectively prevented acquisition of infection and clinical disease caused by common HPV types.

The recent approval of vaccines against HPV has raised great hopes. Ultimately, within the spectrum of therapeutic options for condylomata, no method is really superior to others; recurrences occurred in 30-70% of cases. The recent introduction of a HPV vaccine (especially the quadrivalent one considering the prevention of the anogenital warts in men, as well) has ushered in new hope of substantially reducing global prevalence of HPV disease. The results of the most recent clinical efficacy studies of the quadrivalent HPV vaccine in men have clearly shown that among 1,390 vaccine subjects and 1,400 placebo subjects, efficacy

against persistent infection with HPV 6/11/16/18 was 85.6%. Efficacy against persistent infection with individual HPV types 6, 11, 16, and 18 was 88.0%, 93.4%, 78.7% and 96.0% respectively. In summary, the quadrivalent HPV vaccine has been also proven to be effective in decreasing the incidence and persistence of infection with HPV 6/11/16/18 in a population of young men aged 16-26 years. Thus, the role of quadrivalent HPV vaccine in preventing genital warts in men will definitely need to be (re)emphasized.

P2.2.17. DETECTION OF CHLAMYDIA TRACHOMATIS IGA ANTIBODIES IN SERUM AND SEMEN IN MEN WITH CHRONIC PROSTATITIS

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Objectives
Chronic prostatitis (CP) is one of the most common urological disorders. Ascending C. trachomatis (CT) infection may result in CP. The role of CT in the pathogenesis of CP is not clear.
The prevalence of CT IgA antibodies in serum (SR) and semen (SM) samples in men with/without CP was investigated to get more insight in the immunopathogenesis of CP.
Methods
Ninety men (16-65 years) with no STIs were enrolled in the study from July to December 2008. CP patients were divided into 3 groups based on their pain and urinary disorders, with mild (0-7), moderate (8-19), severe (20-35) NIH-CPSI scores: 24 CP+, 34 CPm, 7 CPs.
CT-specific MOMP IgA antibodies were measured with a serology test (pELISA, Medac) in SR and SM specimens from 65 CP+ vs 25 CP- men. Antibody titres were quantified as photometrical units with all non-negative results considered as positive (CT+).
Results
The results are presented in the Table.
CT IgA antibodies were found in 38.5% SM and 7.7% SR specimens of men with CP but in 8% SM of CP- men. In many CP- patients CT infection in the past could not be excluded.
More often positive CT IgA were observed in SM of men with more severe CP symptoms: 60% vs 40% and 31.4% in CPs, CP+ and CPm groups, respectively (p=0.0003). Interestingly, this corresponds to the previously performed in Amsterdam studies for urethral/prostate specimens. CP+/- men had differences neither in the age of first sex nor in number of sex partners.
Conclusions
Serological tests of SM are useful as a complementary method in the diagnosis of men with vs without CP, with a CT-specific MOMP serology assay (pELISA) as a promising one.
Our results support the role of CT in CP and its importance in the diagnosis. Further studies are necessary.

Table. Detection of CT IgA antibodies in men with/without CP

	CP+	CP-	
Serum (90)	5 (65)	0 (25)	p = 0.3167
Semen (90)	25 (65)	2 (25)	p = 0.0045
	CP symptoms		
	CP+ (mild)	CPm (moderate)	CPs (severe)
Serum (65)	0 (20)	5 (35) 14.3%	0 (10)
Semen (65)	8 (20) 40%	11 (35) 31.4%	6 (10) 60%
Serum + Semen	8 (20) 40.0%	12 (35) 34.3%	6 (10) 60%
Concordance	0 (20)	4 (35) 11.4%	0 (10)

P2.2.18. CHLAMYDIA TRACHOMATIS IN SUBFERTILE COUPLES IN ST. PETERSBURG: DO WE NEED TO INTENSIFY ITS DETECTION WITH SCREENING PROGRAMS?

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Objectives
Data about the prevalence of Chlamydia trachomatis (CT) among the Russian population is still limited. This information is of great clinical and health care interest. We evaluated the prevalence of genital CT infection in subfertile couples undergoing fertilization programs at a family planning center in St. Petersburg.
Methods
The prevalence in 166 asymptomatic male partners (mean age 32.1, range: 21 50 years) of infertile couples undergoing in vitro fertilization programs at a city family planning center was investigated from April 2008 through to March 2009. Semen analysis was performed with screening semen samples for CT by PCR assay.
Results
All men were found negative for gonococci, M. genitalium, T. vaginalis in semen and HIV. CT DNA was detected in 9 (5.4%) of the semen specimens. No differences in number of leucocytes, sperm concentration or motility were found in CT+ vs CT- men in this group.
Conclusions
This first in Russia study for CT prevalence in male partners on the subfertile couples (5.4%). We showed that similar to our previously performed studies in women from 2 universities (6.8%), the genital CT infection prevalence among even non-risk groups in St. Petersburg can be high. In the respect of the increasing HIV infection in the country and the initiation of national programs on stopping the population decrease, there is an urgent call for CT screening programs in Russia.
At the moment we: i) extend the study groups; ii) include CT detection in women, iii) study the link between CT-positivity and fertile outcome or tubal pathology.

P2.2.19. CHLAMYDIA TRACHOMATIS SEROVAR DISTRIBUTION IN THE RUSSIAN MEN

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Introduction
The data on serovars distributions of Chlamydia trachomatis (CT) the most diagnosed sexually transmitted infection (STI) worldwide are important for epidemiological purposes and transmission studies but completely missing in Russia. The CT serovars/serogroups distribution among the Russian men visiting the urologist to be routinely tested for STIs was determined.
Methods
From January 2006 to January 81 CT+ samples were collected from HIV- men (18-44;mean age=26.9 years), 76 heterosexuals (urethral samples) and 5 homosexuals (MSM; 3 urethral and 3 rectal samples) in St. Petersburg.

CT positivity was confirmed (Plasmid based) in Amsterdam. Genotyping was performed with the new ompA VD-2 based reverse hybridization assay (Voorburg), 10% were re-typed by the conventional PCR-based RFLP assay (Amsterdam). Three different CT serogroups (B, C, Intermediate) and the individual serovars (A, B/Ba, C, D/Da, E, F, G/Ga, H, I/Ia, J, K, L1, L2/L2a, L3) were analyzed; the serovars distribution was compared to the most recently obtained Dutch data(n=407).

Results

The results are presented in the Table (both techniques obtained identical results). The serogroup distribution was generated: 40.7%, 30.9% and 22.2% for groups B, Intermediate and C, respectively. Serovars B, J, K and G in Saint-Petersburg were detected more (p=0.001-0.03) whereas I, H and F are less (p=0.003-0.03) often than in Amsterdam.

Urethral symptoms were presented in 50% CT+ men. Symptomatic men were younger than asymptomatic (16.7 vs 26.9 years). No significant differences in the beginning of sex life, numbers of lifetime/last 6 months partners were found. MSM (6.2% CT+ men) had twice more sex partners and presented no symptoms.

Conclusions

The first Russian serovars/serogroup distribution was obtained: serogroup B was most prevalent followed by the C- and Intermediate groups. Several significant differences in CT serovars distribution in Russia vs Holland are reported.

At the moment the study group is being extended with female samples.

Table. *Chlamydia trachomatis* serogroups and serovars distribution in the Russian men.

Single infection n=80 (98.8%)		
Serogroup B n=33 (40.7%)	Serovar B Serovar D Serovar E	4 (4.9%) 5 (6.2%) 24 (29.6%)
Serogroup C n=18 (22.2%)	Serovar H Serovar J Serovar K	1 (1.2%) 9 (11.1%) 8 (9.9%)
Serogroup I n=25 (30.9%)	Serovar F Serovar G/Ga	7 (8.6%) 18 (22.2%)
Plasmid only		4 (4.9%)
Multiple infections n=1 (1.2%)		
Serogroup B&I (n=1)	Serovar D&G	1 (0.6%)

P2.2.20. MANAGEMENT OF MALE PATIENTS WITH RECURRENT GENITAL WARTS IN A LARGE CENTRAL LONDON WALK IN GUM CLINIC CAN WE REDUCE RECURRENT ATTENDANCES?

Alan Smith *- Imperial College NHS Trust. 2: Jessica Daniel - Imperial College NHS Trust 3: Alan Smith - Imperial College NHS Trust*

Background

Genital HPV infection can frequently recur. Neither cryotherapy nor Warticon (podophyllotoxin 0.5% solution) treatment consistently prevents recurrences. There is evidence that Imiquimod treatment leads to fewer recurrences.

Aims

To describe recurrences of genital warts and treatments used in our clinic

Methods

A retrospective case notes review of 100 male patients with recurrent penile warts from August 2008 onwards. Patients with perianal warts and those with missing notes were excluded. Information regarding demographics, previous wart history and current wart episode were collected and analysed using Excel.

Results

Of the 63 patients records analysed so far: Mean age was 31 years. Median time since first diagnosis of genital warts is 12 months. Median time since last episode of genital warts is 5 months.

The mean number of recurrences was 2 episodes per patient and in 30(48%) patients this was at least the second time genital warts had recurred. The majority of patients (56;88%) had < 6 warts.

Previous treatments used were: 36 (57%) cryotherapy, 11 (17%) warticon, 11 (17%) cryotherapy and warticon and only 1 (2%) patient had received Imiquimod. Recurrence was treated in 49(78%) cases with cryotherapy, 15(16%) warticon, 2 (3%) Imiquimod. In 25(40%) patients treatment type was different to previous episodes. 19 (30%) of patients have subsequently represented to the GUM clinic with recurrence of warts since this episode. Of these 17(89%) had been treated with cryotherapy, 1 with warticon and 1 with Imiquimod.

Conclusions

Within our clinic the most common treatment for recurrence of genital warts is cryotherapy.
Approximately half the patients have had multiple wart recurrences but few patients are prescribed Imiquimod. If Imiquimod was prescribed more frequently in wart recurrence, potentially further episodes may be prevented translating into benefit for patients. This may reduce costs to clinic in the long term.

P2.2.21. DIAGNOSTIC SKIN BIOPSY IN A LONDON GENITOURINARY CLINIC - A REVIEW OF DIAGNOSES AND CARE PATHWAYS

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Background

UK Genitourinary Medicine (GUM) clinics offer an open access service. Patients often attribute genital symptoms to sexually transmitted infections (STI); this includes the presentation of genital tract dermatoses and malignant conditions, some of which will require a diagnostic skin biopsy.

Aims

1) Assess the spectrum of pathology seen in a GUM diagnostic skin biopsy clinic
2) Evaluate the accuracy of the clinician diagnosis compared to histological findings
3) Examine patient care pathways and time taken for definitive treatment.

Methods

Retrospective case note review of all patients seen in a skin biopsy clinic since from 23/7/03 to 21/4/09 (69 months). Data was collated and analysed using Excel.

Results

	Number of patients
Referred to biopsy clinic	462
Attended biopsy clinic	386
Biopsy performed	311
Biopsy arrived in lab	309

Patient demographics

Males 90% (281)
Females 10%(30).
Age range 16 to76 years (average 40 years).
Histological diagnosis
258(83%) out of 309 biopsies yielded a definitive diagnosis, with the most common conditions shown below.

Histological diagnosis	**Number of patients**
Lichen Sclerosus	40(16%)
Lichen Planus	40 (16%)
HPV	33 (13%)
Eczema	28 (11%)
Psoriasis	21 (8%)
Zoons	21 (8%)
Lichen Simplex	15 (6%)

Where histology yielded definitive diagnosis, the clinical diagnosis matched histological diagnosis in 53% of cases. Data regarding referral pathways for these patients will be presented.
51(17%) of 309 biopsies showed non-diagnostic or non-specific changes on histology.

Non-diagnostic/ Non specific biopsy Referral Pathways	
GP referral	8 (22%)
Dermatology referral	16 (44%)
Internal referral	5 (14%)
Discharged	7 (20%)

Conclusions
The biopsies performed had a good diagnostic yield (83%). Clinical diagnosis concurred with histological diagnosis in 53% of cases. Further data regarding outcome and onward referral is being collated. Skin biopsy in an open access GUM setting may reduce time to definitive treatment and referral to other specialties, facilitating patient care pathways.

P2.2.22. INTERACTION BETWEEN LGV AND OG BIOVARS WITH MACROPHAGES AND DENDRITIC CELLS

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Aim
To measure macrophage and dendritic cell responses to exposure to the lymphogranuloma venereum (LGV) biovar of C. trachomatis and to compare these with the oculo-genital (OG) biovar
Methods
Macrophage cell line M43 and dendritic cell line HB2 were exposed to LGV serovars L1, L2 and L3 and OG serovar E for 2 days. Apoptosis was observed microscopically by Giemsa stain, cell necrosis by LDH release and IL6 and IL12 were measured by means of ELISA.
Results
Both LGV and OG induced similar levels of apoptosis and cell necrosis in both celltypes ($p>0.05$). The OG biovar induced higher levels of necrotic cell death than the LGV biovar at 1 and 2 days post-exposure ($p<0.001$). Both biovars induced cytokine expression, however the OG biovar induced higher levels of IL6 and IL12 release than the LGV biovars ($p<0.001$).
Conclusion
The lower response rate of cells of the macrophage lineage to exposure to C. trachomatis, biovar LGV as compared to the OG biovar indicates differences in immune response between these organisms.

P2.2.23. STI EXAMINATION AND PROPHYLACTIC TREATMENT AFTER SEXUAL ASSAULT

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Test results, prophylactic treatment and follow up for Chlamydia trachomatis (Ct), hepatitis B virus (HBV) and HIV have been elucidated.
Persons attending within 48 hours after an assault with vaginal, oral and/or rectal penile penetration or attempt of penetration are considered at risk. Testing and prophylactic treatment for Ct are offered to all; HBV immunisation if the assailant is of foreign descent and HIV prophylaxis if the assailant is from a high-endemic country or has a history of injecting drug use. Data were extracted and evaluated with respect to Ct and HBV for female attendees from 2001-2005 and from 2004-2005 respectively; and to HIV for male and female attendees from 2001-2005.
Ct: 74% (861/1164) attending were at risk. Prophylactic antibiotic treatment was accepted by 79% (681/861). Ct screening at day zero was performed in 72% (620/861) of whom 10.3 % (64/620) were infected. The percentage of woman examined and treated were lower in the non at risk group (50% (151/303) and 44% (132/303) respectively), however with an equal Ct prevalence of 10.6% (16/151).
HBV: Among those at risk 19% (100/527) started HBV immunisation. If correcting for 6 persons already immunised and 18 persons continuing at another place, 75% (57/76) received HBV immunisation at day 0, 14 and 28 days. Serological response rate was 81% (26/32).
HIV: 15 women and 3 men were referred for antiviral post exposure prophylaxis (PEP), 2 did not attend. PEP was cancelled before start in 2 and after up to 12 days in 3 persons as the assailants were HIV negative. 6

persons had PEP for the scheduled 28 days, whereas this information was uncertain in five cases. There were no seroconversion, however, 8 persons were not retested.

Conclusions

Acceptance and adherence to treatment for Ct and HBV was high. Adherence to PEP was not optimal.

P2.2.24. EVALUATION OF 429 TURKISH PATIENTS WITH ANOGENITAL WARTS

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Background

Anogenital warts (AGWs) are the leading sexually transmitted disease (STD) in our dermatology clinic in the last years. However, there is limited knowledge of AGWs in Turkish patients.

Objective

The aim of this retrospective study is to evaluate the clinical features of Turkish patients with AGWs. Patients/Methods: A total number of 429 patients with onset of AGWs after the age of 12 diagnosed between the years of January 2004-April 2009 in our university outpatient clinic for STDs were analyzed retrospectively. Demographical and clinical features of the patients are presented.

Results

There were 343 males and 86 females (male / female: 4). AGWs were more frequently seen in the ages between 26-35-year-old ($p<0.05$). 35.8% of the patients were using condom. The main involved site was penis (66.8%) and pubis (50.7%) in males; vulva (57.3%) and perianal area (45.3%) in females. 60.5% of the patients had only one site of involvement, while 39.5% of the patients had 2, 3 or 4 different sites of involvement. Single site of involvement was significantly more frequent in women compared to men ($p<0.05$). In 60.2% of the patients only one kind of treatment modality was used, cryotherapy being the most frequent one (49.1%). In 39.8% of the patients more than one kind of therapy was used. 38.2 % of the patients had recurrences.

Conclusion

There is a male dominance in AGWs. AGWs are most frequently seen in the age group of 26-35 years. Condom is still not widely used in our country. Perianal area is a common site of AGWs in women. There is no specific treatment of AGWs. Recurrence is a major issue in follow-up. The confirmation of our findings in a multicentric prospective study would further allow about the information and situation of AGWs, other STDs and sexual behaviors in Turkey.

P2.2.25. CONDYLOMATA ACUMINATA AND BUSCHKE-LOWENSTIEN TUMOR

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Introduction

Infection caused by human papilloma viruses are the most common sexually transmitted diseases (STD), considering than 75% of allsexually active adults become infected at some point in their lives. Condylomata acuminata is a clinical manifestation of HPV infection in 1% of sexally active population. Incidence is ten times greater in HIV positive people. Large, exophytic, growths in genitoanal region are called Giant condylomata acuminatum (GCA) or Buschke-Lowenstein tumor. It is a locally invasive but nonmetastatic tumor. The tumor is most frequently localised on the perineum, around the anus, one the vulva and penis. Nowadays is classified as a verrucose carcinoma.

Case report

The patient, CK is a male, 25 years of age, electric technician currently employed in agriculture, married. First visited a dermatovenereologist in August 2004. He had noticed the first changes several months before. The changes first appeared perianaly, and then on the genitals. In anamnesis: Appendix removed at the age of 10, 1999 registration sings of nephrotic syndrome were discovered with proteinuria and raised values of cholesterol, creatinin and hypertension. Kidney transplantation was 2003. on the Millitary Medical Academy. The donor was the father. Negates high-risk sexual intercourse. The presence of condyloma has not been found in the wife. Laboratory analyses: Anti CMV positive 1:800, anti EBV positive, by in situ hibridization HPV 6/11 positive.

The Changes
Changes occured 7-8 months affter kidney transplantation. The first changes was perianal. The examination revealed a large cauliflower-like tumefaction perianal and intergluteal, diferent in colour, with clearly limited erythema and tiny papules located where the pressure is put to the gluteal. The glans and preputium had numerous whitish grey and pink papules, some spiky in appearance. Treatment: Large perianal condiloma was surgically removed. Postoperative care was without complication. The wound completely healed in 2 months time. The recidives on the edges were treated by Cryotherapy. Changes on the glans and preputium were treated by Solcoderman solution once a week, one or several changes at a time, after first being treated by alcohol. A few minutes after the solution is applied a greyish white or yellow colour appears. The procedure was repeated until these colours appear. Solcoderman is strong solution, which constains different acids. Liquid nitrogen was occasionally used in therapy.
Conclusion
The choice of treatment method depends on the characteristics of condylomas (localization, number, size), age and state of the patient and availability of treatment. Radical surgical excision is the best therapy for Buschke Lowenstein tumour, if possible. For condyloma acuminatum lesions at penile, good effect are to attain with local aplication of Solcoderman solution and Cryotherapy.

P2.3.1. EXPOSURE TO SEXUAL CONTENT IN MUSIC, MOVIES, TELEVISION AND INTERNET AMONG YOUTH IN A TIME OF HIV/AIDS.

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Background
Early initiation of sexual intercourse is a risk factor for teenage pregnancy and sexually transmitted infections (STIs) and HIV it is no longer news that the media influence behavior especially among youth, putting into consideration the amount of time young people invest in watching musical videos, downloading on the internet and imitating their favorite celebrities and idols and this can influence the sexual debut.
Description
To assess over time whether exposure to sexual content in 4 mass media (television, movies, music, and Internet) used by early adolescents predicts sexual behavior in middle adolescence.
Lesson learnt: The role of parents, by extension the family, is vita in the fight against HIV and AIDS. Parents are the first contact and thus role models for their young ones; there is need for them to be able to communicate positive attitudes and behaviors for emulation of their children. When young people feel unconnected to their parents, family or homes, they may become involved in activities that put their health and well being at risk, in this case risk of HIV/AIDS Infection. Conversely, when parents affirm value of their children through open interaction, children are more likely to develop positive and healthy attitudes about themselves.
Conclusion
Exposure to sexual content in music, movies, television, and internet accelerates young people sexual activity and increases their risk of engaging in early sexual intercourse. Which in turn fuels HIV, the media can influence youth positively if regulatory body charged with the responsibility of regulating content provided in the media are put to check and parent also provide guidance to their children on what they watch on the media.

P2.3.2. A QUALITATIVE STUDY OF MSM IN SINGAPORE TO IDENTIFY DETERMINANTS OF HIGH-RISK SEXUAL BEHAVIOUR

Martin Chio *- National Skin Centre, Singapore.*

Introduction
Previous online Internet surveys of men-who-have-sex-with-men (MSM) in Singapore were not designed to provide a deeper understanding of the local sexual culture & behaviour; a qualitative study was needed to fill the knowledge gaps.
Aim/Objective
To identify locally specific factors associated with high-risk sexual behaviour in Singaporean MSM; to explore the context, situations & locations in which these occur & possibly identify any high-risk sub-groups.
Methods
Previous studies of MSM were used to inform the purposive sampling of subjects for information-rich cases. A sampling grid was constructed considering the following factors: venue, age, race, educational background &

STI/HIV diagnoses. In-depth face-to-face interviews were conducted in English only by a single interviewer with the aid of an interview topic guide. A digital voice recorder was used to tape the interviews & thereafter transcribed verbatim. Data analysis was informed by principles of grounded theory & thematic analysis was carried out with the aid of a spreadsheet.

Results

8 MSM were interviewed between June to August 2007.

The subjects recruited were aged 24 to 44, with the majority aged in their twenties. The racial mix was comparable to the general Singapore population and the participants of a previous seroprevalence study. Subjects were recruited in a variety of ways with a range of STIs/HIV diagnoses with 4 subjects having acquired more than one STI. 4 were HIV-positive. From the interviews, there was no single factor that explained the complexities of risk-taking behaviour. MSM are a heterogeneous group with knowledge, previous experiences and perceptions guiding risk behaviour. A few specific factors were identified & will be elaborated on & discussed further.

P2.3.3. INTER UNIVERSITY DIPLOMA OF MANAGEMENT AT THE SEXUALLY TRANSMITTED LABORATORY

Aïssatou Gaye-Diallo *- Institut Superieur Africain Des Sciences De La Sante.2: Mr. Ndiaye*

ISASS is a place where know African expertise work in synergy with solid international competences in various fields of development in general and of socio-sanitary development in particular.

ISASS wants to ensure a better usage of african and international expertises for African countries in order to boost and speed up their development process.

Its mission is to offer services of high-level and high-quality training in various fields of health sciences, environment, demography, planning and management of health systems and services, epidemiology, bio statistics, socio anthropology, new information and communication technology and health economics.

The objectives of the training in management at the sexually transmitted infection laboratory are :

- To enable to ensure the promotion of referent competent biologists in alle the biology fiels necessary for taking care of patients in a correct way.
- To enable to bring up to standard the laboratory structures.
- To enable to create a dialogue between biologists and clinicians to decide together the examinations useful to help along the complex steps of the taking into care of the infected patient, including therapeutic care, prevention and management of therapeutic failure.
- To enable to create a network of doctors and nurses concerned with the biologic follow up in the general sense, in the perspective of cooperation both South-South and Yorth-South.
- To enable to find the place and role of private laboratories, which are often more rigorous and competitive than the public sector.

Methodological Approach

Besides lecturing, the all class educational approaches will be centred on solving concrete problems with which trainees and constantly confronted. So they will favour the interactive methods: essentially case studies, exercises, simulations in groupwork followed with discussions in plenary sessions.

The training is monitored by professors and researches form national and foreign university. It is also monitored by professionals from public and private sectors chosen because they are competent.

The interuniversity diploma of management at the sexually transmitted infection laboratory is only given to the students who have validated all the credits.

Tableau 1 page 9

List of UE		TD	TP	TPE	No.of hours	Credit
UE 1 : general points on the microbiology laboratory	40	30	10	40	120	6
UE 2 : the agents responsible for STI	40	30	10	40	120	6
UE3 : the syndroms associated with STI and their diagnosis	60	20	40	40	160	6
UE4 : Watch on STI and response institutional and communitary response	29	20		20	60	3
UE5 : Information education and communication in sexual and genetic health	10	15		15	40	2
Total training					500	25

UE : teaching unit
CM : leetaring
TD : directed work
TP : pratical work
TPE student's personal work

Tableau 1 – page 9
UE1 : General points on microbiology laboratory

UE1	Theme	Content	No. of hours	Credits
		Biosecurity	15	0,75
	General points on the microbiology laboratory	Quality management	20	1
		Reagent management	20	1
		Metrology and maintenance	15	0,75
		Communication techniques	10	0,5
		Beginner's cause in computing	10	0,5
		The laboratory in the care of patients	30	1,5
	Total		120	6

Tableau 2 – page 9 D2

UE2	Theme	Content	No. of hours	Credits
	Agents responsible for the microbiology	The agents transmitted with the adult essential by sexual laboratory intercourse		
		The agents whose sexual transmission is described		
		The agents whose transmission is oro-genital		
	Total		120	6

Tableau 3 – page 9 D2

UE	Theme	Content	No. of hours	Credits
	Syndromes associated with STI and their diagnosis in the laboratory	Affectous of the genital sphere	100	5
		The other localization of STI	60	3
	Total		160	8

Tableau 1 – page 10 D2

UE	Theme	Content	No. of hours	Credits
	Watch of STI and institutional and	Tools of STI prevention	30	1,5
	communitary response	International response	10	0,3
		National response	10	0,5
		Involvement of the civil society	10	0,5
	Total		60	3

Tableau 2 – page 10 D2

UE	Theme	Content	No. of hours	Credits
	Information, education	Education to sexual and genetic health	20	1
	And communication	Counseling techniques	20	1
	In sexual, genetic health	and help		
	Total		40	2

P2.3.4. SEXUAL PRACTISES AND STIs: THE MORE ORAL SEX THE MORE MORBIDITY

Marina Kuzminskaya *- MSUMD. 2: Kovalyk VP-Space Center Clinic, Moscow*

Objectives
The aim of this study was to estimate the rate of STIs after different sexual practices: unprotected vaginal, oral and/or anal sex.
Materials and methods
Questionnaire specially designed for the patients of STD clinic was filled down by 505 males aged from 16 to 77 years (mean 30.7 year) who visited clinic for check-up after any kind of unprotected sex. Patients were divided into three groups regarding their sexual practice. Group 1 consisted of males whose only sexual practice was vaginal sex. Group 2 included those who practiced both vaginal and oral, but no anal sex at all. In group 3 there were patients who used all three variants of sex anal, vaginal and oral. The list of questions included those concerning sexual behavior (practice of unprotected and protected vaginal, oral and anal sex), and the life-long history of STIs (syphilis, gonorrhea, Chlamydia, trichomoniasis, anogenital warts and genital herpes).
Results
There were 133 (26.3%), 285 (56.5%), and 87 (17.2%) patients in groups 1, 2 and 3, respectively. The highest number of STIs cases was registered in groups 2 and 3, where patients practiced oral and vaginal, and all three variants of sex, and there was no difference between these two groups (309 out of 285 (108 per 100 respondents), and 95 out of 87 (109 per 100 respondents), respectively). The lowest number of STIs was found in group 1, where patients practiced only vaginal sex, where 86 cases (65 per 100 respondents) were registered ($p<0.05$) .
Conclusion
The combination of oral and vaginal sex is a risk factor for acquisition of STI. Anal sex does not add extra risk. The most safe sex practice was when there was no other practice than vaginal sex.

P2.3.5. FIGHTING SEXUAL ASSAULT: EXPERIENCE OF COORDINATED WORKING RELATIONSHIP AMONG STAKEHOLDERS IN LILONGWE-MALAWI

Duncan Kwaitana *- UNC PROJECT. 2: Gift Kamanga - UNC Project 3: Clement Mapanje - UNC Project 4: Cecilia Massa - UNC Project 5: Pearson Mmodzi - UNC Project 6: Patricia Njawiri-Malawi Police 7: Dr. P Meguid - Kamuzu Central Hospital 8: Hellen Milonde - Kamuzu Central Hospital 9: S Lijenje - Kamuzu Central Hospital*

Issues
There has been great deal of incoordination between clinical service, police and community when handling cases of sexual assualt resulting in victims not getting proper attention and care. For example, some medical people shunning to attend to victims for fear of tendering medical evidence in court. Sexual Assault survivors could not be seen at clinics if they did not bring police report first. The judiciary were also frustrated on how the medical-legal processes were conducted and documented.
Description
Since October 2007 the Health, Police, Judiciary and Human Rights Bodies within Lilongwe City Catchment Area collaborated to address the Sexual assault coordination issues. Quarterly meetings were conducted and challenges experienced by all stake holders were tabled. Way forward was discussed and shared with all collaborating partners. In addition to these coordination meetings, Malawi government also introduced guidelines on sexual assault. The leadership of different sections of Kamuzu Central Hospital which receive sexual assault cases had also been pro-active during this period to sensitise staff on good management practice of sexual assault.
Result
Prior to the coordination meetings, sexual assault management had a lot of gaps in form of quality and package offered. The services basically entailed provision of STI prophylaxis but it subsequently added HIV testing and counselling, emergency contraception, post exposure prophylaxis for HIV and psychosocial support.
Conclusion
Stakeholders meetings are important in ensuring uptake of sexual assault services.
Clinical service managers commitment to translate guidelines to practice yields positive results.

P2.3.6. COMMUNITY EXPERIENCES WITH PROVIDER ASSISTED HIV PARTNER NOTIFICATION IN MALAWI

Pearson M'modzi *- UNC project lilongwe/ Kamuzu central Hospital. 2: E Nkanda - UNC project lilongwe 3: G Kamanga - UNC project lilongwe 4: D Kwaitana - UNC project lilongwe 5: Lbrown - UNC Chaple Hill 6: FMartinson - UNC project lilongwe/Chaple Hill*

Background
Partner notification involves informing the sexual partners of HIV-positive persons that they have been exposed and encouraging them to seek counseling, testing and other prevention and treatment services. Passive referral is currently the standard of care in Malawi and relies on index patients to notify their partners themselves. Two methods of provider assisted partner notification are contract referral, in which the index is given a period of time to notify their sexual partners, after which a health care provider contacts partners who have not reported for counseling and testing, and provider referral, where a health care provider contacts partners directly.
Methods
As part of an ongoing study to determine the most effective method of HIV partner notification, individuals with newly diagnosed HIV presenting to Kamuzu Central Hospital STI clinic in Lilongwe, Malawi were randomized to one of three methods of partner notification: passive referral, contract referral, or provider referral. The number of partners traced, located, and who reported to the clinic for HIV testing and counseling were documented.
Results
Community health workers traced 95 partners. 80 (84.2%) were located, of those located, 55 (68.75%) sought HTC. Community health workers were well received by partners and did not experience any negative events.
Conclusions
Despite initial fears that provider assisted referral would not be culturally acceptable and would be rejected by the communities, our experience demonstrates provider assisted HIV partner notification is acceptable in this population. There were no social harms experienced by index participants, partners, or community health workers. The high proportion of partners who were successfully located who subsequently sought HTC suggest provider assisted notification can be an important component of HIV prevention programs in sub-Saharan Africa.

P2.3.7. PARENT-CHILD COMMUNICATION ABOUT REPRODUCTIVE HEALTH IN LAGOS, NIGERIA; IMPLICATIONS FOR STI CONTROL

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Background
Sexually transmitted infections (STI) is a major reproductive health concern among adolescents girls in Sub-Saharan Africa because of their inherent biological susceptibility and inability to negotiate condom use. It therefore follows that STI control strategy in this region should include empowerment of adolescents to make responsible reproductive health decision. The study look at the role of mothers as sex educators in their home.
Method
Cross-sectional study with data collection via interviewer administered questionnaire from 400 women selected via stratified random sampling method. Data was analyzed with epi-info software.
Results
Mean age of respondents was 43 years, they are mostly(64.7%) christians,68% are married while 58% had atleast secondary school education.There was free discussion on reproductive health topics of menstruation,childbirth and pregrancy but 50.6% and 54.1% of respondents were comfortable in discussing

sexual intercourse and sexually transmitted infections respectively. Also 41.7% had difficulty in discussing sex education with thier girls because they believe it will encourage promiscuity(73.2%) and 60.5% of women felt that women should be the primary source of sexuality education. On best age of initiatiation of discussion on reproductive health, 40.8% believe girls should be 15 to 18 years, 24.2 % will start at age les than 15 years and 35% prefers older girls >18 years . Married women will discuss reproductive health issues with theirs girls(Chi square=12.5;p<0.05), so are women with at least secondary education(chi square=9.19;p,0.05).

Conclusion

Women needs to discuss freely with their adolescent girls about reproductive health and STI control program should focus on strengthening the capacity of women to educate their girls on reproductive health.

P2.3.8. IMPACT OF COMMUNITY THEATER AND DOCUMENTARY FILM SHOW ON HIV/AIDS PREVENTION INITIATIVE IN OYO STATE OF NIGERIA.

Kolawole Muyideen Oreoluwa *- Youth Network on HIV/AIDS in Nigeria. 2: Alimat Bolatito AKANDE - Youth Network on HIV/AIDS in Nigeria*

Issues

The use of folk media (Community Theatre and Documentary Film Show) has been found to be effective strategies in behavioral change communication among indigenous African population. Yet, these strategies have been largely neglected in HIV/AIDS prevention intervention in the continent. A project to promise HIV/AIDS prevention among indegenous was implemented through folk media (Community Theatre and Documentary Film Show).

Description

The project under focus utilized Entertainment - Education strategies as a behavioral change tool to promote HIV/AIDS prevention through community drama series and documentary film show as media intervention developed to reach people on an emotional and intellectual level and provides a forum for people to ask question and seek information relevant on transmission and prevention of HIV/AIDS.

Lesson learned

Community members adopt new healthy behaviour.

-Viewers believed the stories in the documentary could happen to them

-The impact of documentary film about empathize with the Characters in the film.

-Community theater drama a performanced are effective means of discussing risk assessment in groups without exposing individuals to ridicule of stigma.

-Documentary Film is an effective means of increasing knowledge of HIV/AIDS transmission and educate HIV/AIDS.

Recommendations

Mobile cinema unit and community outreach drama performance provide a forum for people to ask question and seek relevant information on transmission and prevention of HIV/AIDS, integrating it as part of multimedia to be placed with a wider behaviour change model for grater effectiveness to effective, HIV/AIDS Prevention Education must be designed in educational and entertaining format as to have on a society at risk.

P2.3.9. MAYBE IT'S NOT HIS FAULT THAT SHE DOESN'T USE CONDOMS

Sondra T. Perdue *- Univ of TX Health Sci Center San Antonio. 2: Rochelle N. Shain - Univ of TX Health Sci Center San Antonio 3: Alan EC Holden - Univ of TX Health Sci Center San Antonio 4: Annie R Thurman - Univ of TX Health Sci Center San Antonio 5: Janie R Jensen - Univ of TX Health Sci Center San Antonio*

Objectives

Determine whether reasons often given by women for not using condoms in a relationship are supported by data collected separately from both partners of sexual dyads.

Methods

We followed cohort of 500 high-risk, heterosexual Mexican- and African-American couples in San Antonio to test the efficacy of behavioral interventions. Detailed behavioral data collected included questions about why individuals and couples did not use condoms all of the time, both in general and later in the interview specifically about the relationship with their partner who was interviewed separately. We compared answers between partners, and individuals specific answers to their reported general barriers to condom use. McNemars test was used to assess symmetry within couples (* shows p<.05).

Results
Of 512 couples at intake, 43 (8%) used condoms all the time. The following reasons for non-use were cited by fewer than 5% of couples: embarrassing to buy, they break, too costly, come off inside, hard to put on, too drunk/high for use. In the 49% of couples who just dont like using them in general [labeled dislike], more women than their partners reported dislike (44% v. 28.
Why are condoms not used all the time?

Specifically with this partner	%	In general, as a barrier to using condoms	
She says :	couples	He says he dislikes	She says she dislikes
He refuses to use	7.7	33.3%	52.8%
He doesnt like them	26.5	33.1%	58.6%
He says:			
She doesnt like them	9.1	33.3%	61.9%

Conclusions
Behavioral studies frequently collect reasons for not using condoms from women who often blame their men for refusing or resisting condoms. Our data show that these reports may actually reflect the attitudes and desires of the women more than their men.

P2.3.10. THE MULTIDIMENSAIONAL ASPECTS OF SEXUALLY TRANSMITED DISEASES. AND SUGGESTED MANAGEMENT INTERVENTIONS.

Marlene Wasserman *- Director, Sexual Health Center, Cape Town.*

Differences in the spread of the HIV/AIDS epidemic can be accounted for by a complex interplay of sexual behavior and biological factors that affect the probability of HIV transmission per sex act. Sexual behavior patterns are determined by cultural and socioeconomic context.In sub Saharan Africa the subordinate position of women, impoverishment and decline of social services, rapid urbanisation and modernization, wars and conflicts have contributed to extensive spread of HIV.
In addition to these macrocosmic measures there are microcosmic influences to this epidemic. Peer pressure, sensation seeking, personal risk-assessment, behavioral intention, condom use at first sexual intercourse and sexual victimization are significant predictors of sexual risk taking behaviors. This paper considers the unique vulnerabilities of women and men that contribute to the spread of this epidemic.
The principle in management of HIV/AIDS is not only to target the individuals but also aim to change those aspects of cultural and socioeconomic context that increase the vulnerability to HIV/AIDS. Suggested interventions to manage this epidemic are discussed.

P2.3.11. MEN WHO HAVE SEX WITH MEN(MSM) - LEFT OUT OF THE EQUATION - STUDIES FROM THE WORLD OF ASIA, AFRICA AND SOUTH AMERICA.

Michael Waugh *- Nuffield Hospital , Leeds LS1 3EB , UK.*

Introduction
Although there are numerous studies in the last 30 years on the relationship between men who have sex with men from North America, Europe and Australasia , there are far fewer from the rest of the World.
Aims
My professional life has taken me all over the World and it is apparent that apart from published papers that there are anectodotal and conference reports that show that much more attention should be paid to this facet of sexual risk behaviour . Epidemiology, education ,legal and civil rights are all part of recognition that should be given to this important aspect of sexuality .It is vital that MSM/STI/HIV linkage be studied if the sexual health of this group and their contacts both male and female be recognised and necessary measures for combatting STI introduced.
Conclusion
This review will cover all these many aspects.

P2.3.12. INFLUENCES AND ATTITUDES ON HPV VACCINATION AMONG MALES AND FEMALES IN THE PHILIPPINES

April M. Young *- University of Kentucky. 2: Richard A Crosby-University of Kentucky*

Eighty percent of cervical cancer cases occur in developing countries. In populations where secondary prevention is inaccessible, the HPV vaccine could serve as a key prevention strategy. About two-thirds of Philippine cervical cancer cases are diagnosed at an advanced stage. For every two new cervical cancer cases diagnosed annually, one dies within the year. According to WHO, organized screening programs are difficult to implement and sustain in countries such as the Philippines due to a lack of resources. Thus, a primary prevention strategy is critical, yet the success of a HPV vaccination initiative is contingent on community acceptance. Sociocultural influences on HPV vaccine acceptance in the Philippines have yet to be explored. This study examines influences on HPV vaccine acceptance among women and men in the Philippines Visayas region through a series of cross-sectional surveys. The surveys assess three constructs based on the Theory of Planned Behavior (TPB): attitude toward HPV vaccination, perceived social norms surrounding vaccination, and perceived behavioral control over vaccination. The TPB constructs as well as socio-demographic, behavioral, and healthcare-related variables are assessed as correlates to participants self-reported intent to be vaccinated. Bivariate relationships of vaccination intent with aforementioned correlates are assessed using Pearson and point-biserial correlations. Significant bivariate correlates are entered into a hierarchical multiple linear regression model to assess predictive value.

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P2.4.1. INTEGRATED APPROACH TO THE MANAGEMENT OF HIV/AIDS AND STI IN EKITI STATE, NIGERIA

Kazeem Balogun *- Life and Peace Development Organization (LAPDO). 2: Franklin Oloniju - Life and Peace Development Organization (LAPDO)*

Context
Despite having an HIV prevalence rate lower than the national average and a high number of untreated STI, clinical management of STI cases constituted a heavy burden on the Ekiti State health system. STIs were found not to be properly treated, contributing significantly to the spread of HIV infection. An intervention to integrate management of HIV/AIDS and STI (HAST) using counseling as an entry point with the aim of improving patients quality of life was initiated by the State Ministry of Health (SMoH).
Approach
SMoH trained 8 health and social workers from various organizations as trainers and were supported to train a total of 350 health and social workers across the 3 levels of health care in both public and private sectors in the State in July 2005. Step down training to other staff in each facility represented in the training was encouraged to expand the knowledge base and institutionalize the process. Job aids on syndromic management of STIs were developed. Monitoring and Evaluation tools were also developed for supervision. Behavioral Change Communication (BCC) materials on linkage between STIs and HIV were produced while Ekiti State Action Committee on AIDS implored its partners (CSOs) to always include information on STIs into their outreach activities.
Outcomes/Challenges
As at February 2009, 2,904 people have been counseled under the initiative. There is an increased knowledge level on STIs among the populace with a resultant reduction in the State HIV prevalence rate from 1.6% in 2005 to 1.0% in 2008.
Key Recommendations
There is need to equip facilities at all levels with capacity to conduct HIV and STI testing and patient care.

P2.4.2. NON VENEREAL DISEASES OF THE GENITAL AREA

Nejib Doss *- Military Hospital of Tunis. 2: Soumaya Youssef - Military Hospital of Tunis 3: Kahena Jaber - Military Hospital of Tunis 4: Raouf Dhaoui - Military Hospital of Tunis*

Introduction
Many lesions of the genital area are misdiagnosed as venereal diseases.
This might explain the delay of the diagnosis of some diseases.
Materiel & Methodes: we reviewed all the genital lesions seen in the department of dermatology of the Military Hospital of Tunis during the last decade.
We pointed out the non venereal lesions.
The lesions were classified according to their etiology: infectious, inflammatory, drug reactions, allergy, tumoral
Results
197 cases of genital lesions were collected.
Conclusion
The goal of this study is to make practitioners aware about the different lesions which look like a venereal disease but they arent.

P2.4.3. STD & HIV PREVENTION PROGRAMME: THE TUNISIAN EXPERIENCE

Nejib Doss *- Military Hospital of Tunis. 2: Ali Mrabet - Military Department of Health 3: Chokri Tounsi - Military Department of Health 4: Riadh Allani - Military Department of Health 5: Mohamed T. Khoufi - Military Department of Health 6: Raouf Dhaoui - Military hospital of Tunis 7: Ridha Bellaaj - Military Department of Health*

Introduction
In spite of low prevalence of STD, we started a prevention programme since 1987
Objectives
Straighten preventive behaviours in the field of STD among militaries
Methods
Training sessions for health personnel in the military institutions, Awareness sessions for militaries, condom for free and promotion of its use, Epidemiological follow-up of STD in the military environment & implement mechanisms of monitoring & evaluation
Results
Sessions of sensitisation are organised regularly (for 30000 soldiers/year),Information, education and communication programme for the militaries taking part in peacekeeping forces: 680 (2008),condoms distributed: 32000 (2003); 160000 (2008)
Conclusion
Training, information, education are pillars of our policy against STD. Our effort is a sustained one.

P2.4.4. SELF - MEDICATION PRACTICE AMONG CLIENTS ATTENDING STI CLINICS

Charles M. Hakoma *- SHARe Project.*

Broad objective
1. To determine the extent of self-medication practice and related Factors among patients attending STD clinics.
Specific objectives
1. To determine the influence of level of education to self - medication practice
among patients attending STD clinics.
2. To establish the common alternative sources of drugs used in self - medication practice among patients attending STD clinics.
3. To describe the common types of drugs used for practicing self medication
Methodology
A descriptive cross-sectional study was conducted from 29th September 1999 to 29th October, 1999 after obtaining an ethical clearance from the Government
Ministry of Health authority.

The sample size was 112, for which convenience was used as sampling

Technique

Consecutive patients who attended STD clinics which included five Health Centers in this population gave consent to participate in the study.

Results

Table 1: Distribution of study sample by sex and age **N = 112**

Years	**Sex**	
	Male	Female
< 15	0	2 (3.3%)
16-25	22 (42%)	34 (56.7%)
26-35	22 (42%)	18 (30%)
36-45	6 (12%)	4 (6.7%)
45+	2 (4%)	2 (3.3%)
Total	52 (46%)	60 (54%)

Age ranged 11 61 years.

Mean age = 27 years.

The majority (peak) ranged between 16 35 years.

Male: Female ratio 1: 1.2

Table 2 Extent of self medication practice among patients attending STD clinics.

Self medication practice	**Number**	**Relative frequency**
Yes	89	79.5%
No	23	20.5%
Total	112	100%

Proportion of self medication practice was 79.5% CI (75.7 83.3%).

Table 3 The influence of education among patients practicing Self Medication. **N = 112**

Level of education	**Self medication practice**	
	Yes	No
Below Primary education	41 (91%)	4 (9%)
Above secondary education	48 (72%)	19 (28%)
Total	89 (79.5%)	23 (20.5%)

It seems apparently that the frequency of self medication practice increases with the de-creasing level of education.

(This was statistically significant).

Common types of drugs used in Self medication among patients attending STD Clinics (N = 89 patients)

Traditional Medicine 36%

Antibiotics (15%)

Traditional Medicine/antibiotics (30%)

Others (19%)

Reported Sources of drugs for Self medication

STD Clinics (N = 89 patients)

Traditional Health Practitioners (32%)

Chemists

(18%)

Regular shops (30%)

Others (20%)

Conclusion

1. The high figure of 79.5% of self medication practice observed in this Zambian rural population is similar to other studies conducted in other countries such as Kumasi Ghana (74%), Yaounde, Cameroon (75.5%) and Lilongwe, Malawi (75%)
2. It is interesting to note that such rural Zambian population gives similar results as those studies conducted in URBAN large cities elsewhere as mentioned above. Hence, the need to conduct a similar study in Zambian cities.
3. It seems low level of education contributes to the increase of self-medication practice.

Recommendations

1. The community is made aware on dangers of self medication practice by the Ministry of Health.
2. STD control Programme should be strengthened by the Ministry of Health, involving both the informal and formal sectors.
3. National policies governing drugs selling and dispensing should be enforced by the Ministry of Health

P2.4.5. PROMOTING SEXUAL HEALTH IN THE FIELD OF SPORT

David Hawkins *- HIVSport. 2: Andy Harvey - HIVSport 3: Alan Irwin - HIVSport 4: Joanne Ferry - HIVSport*

The key objective of HIVSport is to raise awareness of HIV and AIDS and promote sexual health in the field of sport. To achieve this aim we use the Badge of Hope.
As a not-for-profit organisation we work in partnership with stakeholders from professional sporting associations, umbrella HIV organisations, medical and corporate bodies to deliver our goals:

- Create, through sport, greater public awareness of the global epidemic of HIV and AIDS
- Provide education and training to people in all roles in sport around HIV and other sexual health related matters
- Support sports-related HIV education projects.

Through our affiliation to the Educational Sports Forum we make presentations to other affiliates including the world of football, cricket and rugby. The purpose of this work is to raise awareness at the organisational and institutional level as well as amongst individual members of the players' associations. A key example of the latter work occurred when players from Manchester United Football Club recently took the Badge of Hope to South Africa.
The red ribbon is the internationally familiar symbol of HIV and AIDS awareness. HIVSport is committed to use the symbol to ensure that levels of awareness are improved through sport, especially among younger people and to further this aim we are designing new badges of Hope with other sporting symbols, for example tennis ball, cricket bat, boxing gloves and so forth.
Global attention on the World Cup 2010 and the London Olympics in 2012 provide British sport with a unique opportunity to promote itself as socially aware and in touch with the wider world. British Sports Ambassadors have the potential to portray British sport in the best possible international light. HIVSport is engaged in identifying a number of Sports Ambassadors for HIV and AIDS awareness during these high profile events.

P2.4.6. UTILIZATION OF PORTACABINS IN HEALTH CARE IN NIGERIA: ACTION EXPERIENCE

Fauzia Khan *- IHVN. 2: Charles Mensah - IHVN 3: Patrick Dakum - IHVN 4: Frederick Hayes - IHVN 5: Sam Dimka - IHVN*

Background
Under existing grant policies, the implementing partners can renovate and upgrade the existing facilities or provide portacabins to meet the infrastructure needs. There is absence of adequate infrastructure to upgrade in Nigeria. Based on the needs assessment report, ACTION decided to utilize Portacabins to solve space constraints in facilities. Concrete bases were constructed, fabrication and installation was carried out on a specified sketch which took 6 -10 weeks depending on size and site constraints. It was then connected to utilities, electrical & mechanical equipment, and landscaping done. After quality check, cabin is functional.
Design and Methods
An evaluation of the cost benefit was carried out using desk reviews of costs and utilization of the Portacabins. Total cost for construction of base, fabrication and installation including connections to existing hospital utilities was compiled.
Results
Portacabins solved space constraints in 6 out of 10 facilities and used for laboratory, consultation and records. Primary outcome was fast activation of sites. Average cost was $469 per sq. feet in comparison to a bricks building with a cost of $315. Constraints were early deterioration of floors and potential risk of fire due to flammable material use. Life span is estimated to be 7-10 years. Reconfiguration is not easy, however dismantling and re-assembly is possible. Construction of a building of the same specifications would take twice the time but half the costs. Maintenance in a brick and mortar building is also easier and cheaper.
Conclusion
Portacabins provide alternative to the existing limitations of grant policy on A&R but very useful if space is needed immediately. Cost of installation and maintenance makes portacabins a difficult choice in resource constrained settings. The need for review of Policies related to construction will be useful in providing sustained support to scale up of HIV/STI services in undeveloped countries.

P2.4.7. QUALITY IMPROVEMENT IN AN AMBULATORY STI CLINIC IN SINAGPORE

Hiok Hee Tan *- National Skin Centre Singapore. 2: Theresa Soon - National Skin Centre 3: Roy Chan - National Skin Centre*

Over the past 2 years, the Department of STI Control clinic (DSC) in Singapore has embarked on a programme to review and enhance its quality improvement programmes. A thorough review was conducted of its day to day operations, infection control processes, and standard operating procedures. It capitalized on its use of computerized medical records to improve documentation and patient screening. DSC introduced risk management protocols and revised patient, staff and workplace safety guidelines. In January 2008, DSC, along with its parent hospital the National Skin Centre, became the first ambulatory healthcare facilities in Singapore, and also among the first few outside of the United States to be accredited by the Joint Commission International (JCI).

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