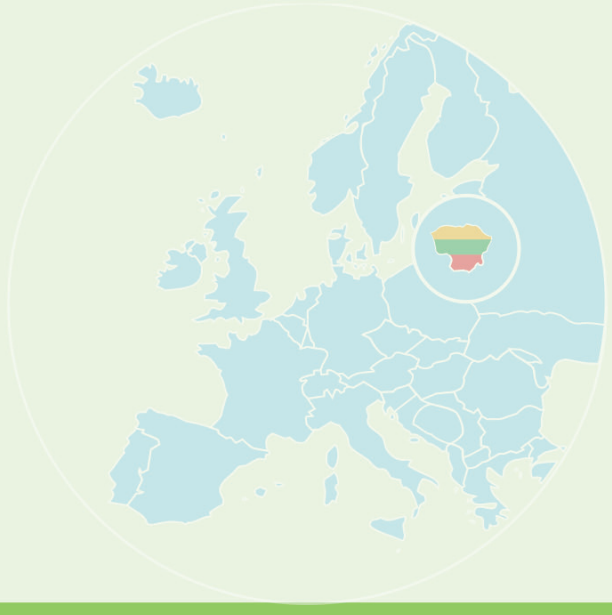
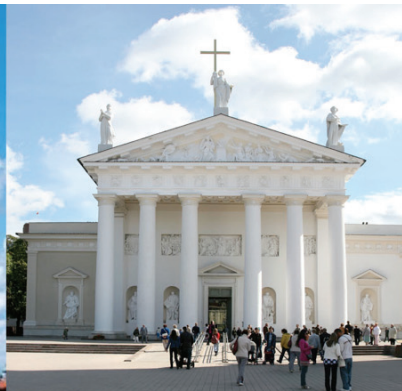
Abstract Book

5th European Conference on Clinical and Social Research on AIDS and Drugs

28 - 30 April 2009 Vilnius, Lithuania





WWW.AIDSVILNIUS2009.COM

YOU'VE ONLY JUST ARRIVED & ALREADY WE'RE THINKING OF YOUR NEXT TRIP

As the official airline network for 5th European Conference on Clinical and Social Research on AIDS and Drugs, we'd like to thank you for choosing the Star Alliance™ network and hope that all goes really well for you here today.

Whilst you concentrate on the day's events, we hope you'll consider us the next time you need to attend a conference.

With over 18,100 flights a day to 975 airports across 162 countries, our 24 member airlines will extend a wide choice of flights to any future conference you're planning to attend. And no matter which of those airline's frequent flyer programmes you belong to, you can earn and redeem miles across all of them.

So the next time you want to concentrate all your energies on your conference,we hope you'll decide to leave the travel arrangements to us.

AIR CANADA

AIR CHINA

AIR NEW ZEALAND

ANA

ASIANA AIRLINES

Austrian

bmi

EGYPTAIR

LOT POLISH AIRLINES

Lufthansa

Scandinavian Airlines

SHANGHAI AIRLINES

SINGAPORE AIRLINES

SOUTH AFRICAN AIRWAYS

Spanair

SWISS

TAP PORTUGAL

THAI

TURKISH AIRLINES

UNITED

US AIRWAYS

REGIONAL MEMBERS

ADRIA

Blue1

CROATIA AIRLINES

www.staralliance.com

STAR ALLIANCE™
THE WAY THE EARTH CONNECTS

Information correct as at 07/2008

Contents

Overview Abstract Numbers

Scientific Abstracts - Invited Speakers presentations	**OS1.1/1 - OS3.4/4**
Scientific Abstracts - Oral presentations	**PS1.1/1 - PS3.2/3**
Scientific Abstracts - Poster Presentations	**PE1.1/1 - PE3.4/5**
Scientific Abstracts - Late Breaker Presentations	**LBPS1.3/1 - LBPS3.4/2**
Scientific Abstracts - Printed Version	**PR1.1/1 - PR1.3/1**

This publication arises from the project 5th European Conference on Clinical and Social Research on AIDS and Drugs which has received funding from European Union, in the framework of the Public Health Programme

Health Programme 2008-2013
Together for Health

LIETUVOS RESPUBLIKOS
SVEIKATOS APSAUGOS MINISTERIJA

LIETUVOS AIDS CENTRAS

AIDS and social disease society

Scientific Abstracts - Invited Speakers Presentations

submitted only

1.1. New ARV therapy strategies

OS1.1/1

Gene therapy of HIV-1 infection by transducing autologous T helper cells with a therapeutic gene which inhibits viral fusion

Jan van Lunzen
University Medical Centre Hamburg-Eppendorf, Germany

Background: Despite significant improvements of the survival of HIV infected patients during HAART, treatment limitations such as the development of drug-resistant HIV strains and long term toxicities call for innovative strategies to treat HIV infection.
Objective: To develop an effective gene therapy for HIV infection involving the ex vivo transfer of an antiviral gene into autologous CD4+ T cells.
Methods: We cloned a novel antiviral gene (M87o) into a retroviral vector backbone (MoMLV) which inhibits virus entry by expressing a membrane anchored peptide derived from the second heptad repeat of gp41. Autologous T cells obtained by lymphapheresis of HIV-1 infected pts. were expanded ex vivo using anti-CD3/anti-CD28 coated beads and transfected with the transgene. Gene modified CD4+ T cells were transfused into pts. with advanced disease (CD4 count <200/µl) and failing HAART (VL >5000 copies/ml) due to multi-drug resistant viruses. Gene marked cells were followed in vivo by qPCR in lymph nodes and peripheral blood.
Results: M87o inhibited virus entry in cell lines and primary T cells for all HIV isolates tested (primary and lab strains) with 99-100% efficiency. A median of 1.26 x 109 transfected T cells were retransfused into 10 HIV infected patients with advanced disease (median CD4 count 93/µl, VL 4.96 log10 copies/ml). At a median follow up of 4 mths. no severe side effects or grade 3-4 AE`s occurred. Transduced T cells enriched in the peripheral blood immediately after retransfusion peaking at 5-15 min. leading to a gene marking of a median of 20% of the total peripheral CD4+ T cells. A rapid redistribution to lymphoid organs was observed thereafter where transduced T cells could be detected up to 6 mths. after transfusion. In 6/10 pts. a significant increase (>50% change from BL) of CD4 counts was observed despite unchanged HAART. For the whole group the mean relative increase of CD4 counts at week 12 was 43% compared to baseline (110 CD4+ cells/µl to 153 CD4+ cells/µl). No significant changes of VL were detected. A positive correlation between the absolute number of transfused gene modified CD4 T cells and increases of CD4 counts was observed.
Conclusion: The clinical development of this first gene therapeutic approach for HIV infection based on entry inhibition shows promising results. Transduced CD4+ T cells have been transfused safely leading to an increase of total and relative circulating CD4+ T cells. This increase in app. 60% of these advanced patients warrant further trials in less immunocompromised cohorts.
Contact Phone: 004940741052831

OS1.1/2

Allogeneic CCR5 delta 32 mutated stem cell transplantation for control of HIV replication

Gero Hütter
Charité Berlin, Campus Benjamin Franklin, Germany

To enter target cells, the human immunodeficiency virus type 1 (HIV-1) requires both, CD4 and predominantly the chemokine receptor CCR5. A 32-base pair deletion in the CCR5 allele (CCR5-delta32) leads to an truncated gene-product and provides resistance against HIV-1 transmission in individuals homozygous for the mutation. Therefore, we have performed an allogeneic stem cell transplantation in an HIV+ patient with relapse of acute myeloid leukemia (AML) with an HLA-matched unrelated donor selected to be homozygous for CCR5-delta32. The request at the Bone Marrow Donor Registry revealed 232 HLA-identical donors which were screened for the CCR5-D32 deletion, using a genomic PCR assay. The patient underwent allografting with CD34+ peripheral blood progenitor cells from donor #61, who was homozygous for CCR5-delta32. Highly active antiretroviral therapy (HAART) was discontinued one day before transplantation. Engraftment was achieved on day +13. The viral load was monitored regularly by HIV-RNA-PCR and proviral DNA-PCR assays. While viral load remained negative, proviral DNA decreased to undetectable levels since day +68.
The patient remains without viral rebound 26 months after discontinuation of antiretroviral therapy. The decisive role of CCR5 for HIV-1 infection becomes exemplified as proof of principle by the first report on a HIV replication stop by means of allogeneic stem cell transplantation
Contact Phone: +49-30-84454709

OS1.1/3

Cell delivered gene therapy for HIV

Geoff Symonds
Calimmune Inc, Australia

Highly active antiretroviral therapy (HAART) has decreased the morbidity and mortality of HIV. However, treatment is life-long and its effectiveness is limited by its side effects, cost, and the often rapid development of drug resistance. A hematopoietic stem cell based approach that allows reconstitution of the hematopoietic system with cells containing protective genes may provide a continuous means of controlling HIV. The safety, feasibility and efficacy of this approach has been shown in a Johnson & Johnson sponsored multi-centre, randomized, double-blind, placebo-controlled study using a tat/vpr specific ribozyme (Mitsuyasu, R., et al., 2009. Nat Med. 15(3):285-92. Epub). End-points showing significance were time-weighted area under the viral load curve during the analytic treatment interruption, the time to reach a viral load of log4 copies/ml and the viral load at the primary end-point when subjects showing ribozyme expression were compared to placebo subjects. In addition, CD4 counts were consistently higher in the ribozyme group. This approach can be tested with other constructs, for example a short hairpin RNA to CCR5. It is noteworthy that genetic modulation of CCR5 for HIV therapy has a proven genetic basis. Individuals born with naturally existing mutations in CCR5 (CCR5¦¤32) are protected from HIV infection and disease progression. Allogeneic transplant of CCR5¦¤32 eliminates detectable levels of HIV-1 and may be curative (Hütter, G., et al., 2009. NEJM 360: 692-698). Thus a cell delivered HIV gene therapy may overcome many of the obstacles of HAART.
Contact Phone: +61-414-752-479

1.2 Important aspects of current ARV thérapies

OS1.2/1
HIV virological synapses
Quentin Sattentau [1], Nicola Martin [2], Sonja Welsch [3], Fedde Groot [4], Clare Jolly [5]
University of Oxford [1 2 4], United Kingdom, EMBL Heidelberg [3], Germany, University College London [5], United Kingdom

HIV-1 can spread between receptor-expressing cells by release of cell-free infectious particles and by direct cell-to-cell spread via a structure termed a virological synapse. The latter mode of viral dissemination is thought to be efficient and has been hypothesized to allow viral escape from the action of inhibitors of viral entry including receptor antagonists, fusion inhibitors and neutralizing antibodies. To investigate this we analyzed the structure and function of the virological synapse to gain insight into how HIV-1 subverts the molecular machinery of immune cell interactions, and probed the susceptibility to entry inhibitors of virus spread via both pathways. We found that HIV-1 can harness cellular interactions to spread directly between CD4+ T cells and between macrophages and CD4+ T cells. Both CXCR4- and CCR5-using viruses form similar structures to mediate cell-to-cell spread, and cell-to-cell spread resulted in a productive infection in the target cell. Electron-tomographic analysis of the T cell virological synapse revealed a loose association between infected and uninfected cells with virus clustered at the interface. This loose cellular association suggested that inhibitors might have unimpeded access to the virus at the synapse, and thereby interfere with cell-to-cell virus transfer. We confirmed this, and demonstrated that all classes of inhibitor had similar 50% inhibitory concentrations when tested against cell-free infectious virions or virological synapse-associated virus. Thus although direct cell-to-cell spread may be a more rapid form of viral dissemination than cell-free virus release, it does not appear to be resistant to inhibition by antagonists of viral entry.
Contact Phone: +44 1865 275511

1.3 HIV, viral hepatitis, TB and drug abuse treatment

OS1.3/1
Drug free rehabilitation program for drug addicts and management of HIV and HCV infection
Antonio Boschini, San Patrignano Foundation, Italy

Introduction: San Patrignano is a drug free residential rehabilitation facility for the treatment of drug addiction, founded 30 years ago by Vincenzo Muccioli, in northern Italy, on the hills near the Adriatic sea.
Addiction is not treated as a psychiatric disease with biological basis, but as behavioural problem with multiple and variable social, cultural, educational, psychological causes, including psychiatric disease.
The therapeutic program, free of charge for families and also for Public Health, lasts about 4 years and is based on education and social rehabilitation of subjects. The main goal is essentially the progressive building of individual and social responsibility, self esteem, intrapersonal and professional skills and strengthening of relationships.
Substitutive therapy with methadone or buprenorphine is used for detoxification only in selected cases (pregnant women, AIDS patients or very sick subjects, etc.) and never as maintenance treatment.
Psychopharmacologic treatment is reserved to those subjects with a well defined psychiatric disease non related to withdrawal of drugs (about 20-25% of cases), with minimal prescription of addictive drugs (barbiturates, benzodiazepines, etc.).
Since 1984 (the first year of regular data collection) about 17.000 subjects entered in the Community. For most of these subjects a plasma sample has been stored and vital statistics, toxicological, and medical informations are available in the computerized data bank, for epidemiological analysis of drug related risk behaviour, and medical disease.

The Medical Center
The San Patrignano Medical Center has been created for the management of medical complications related to drug addiction: withdrawal syndrome, psychiatric diseases, sexually transmitted disease, infections associated with syringe use or exchange (HIV/AIDS, hepatitis C or B/ cirrhosis, endocarditis, etc.), odontoiatric diseases, tuberculosis, pneumonia, etc.
Patients are followed in a multi function office with diagnostic instrumentation or in a 50 bed medical ward, depending on the severity of those complications.
Inside the Medical Center an hospice and a long term rehabilitation center for AIDS patients without resources (homeless, illegal people, patients with neurological o psychiatric diseases, patients without access or unable to adhere to treatments, etc.).

Epidemiology of HIV and HCV infections.
Our data confirms that, in Italy, HIV infections diffused among intravenous drug users from 1980 to 1985 (data on about 13.000 subjects), beginning to decline thereafter, when the test became available. The prevalence of HIV infection was 10% in those admitted in1981, peaked to 56% in 1986, and returned to 10% in 1999. Unfortunately the prevalence remained stable to about 10% from 1999 to 2007, confirming the persisting of high risk behaviours in a subgroup of drug users.

Since 1981 to 1999 more than 90% of drug addicts have been exposed to HCV infection, and infection generally occors very early, in the first years of intravenous drug use. Exposure is clearly associated with syringe use, but not necessarily to syringe exchange; probably some other injected related practice plays a role in the diffusion of HCV infection (sharing of spoons and/or filters? Front-loading or after-loading of syringes?).
The recent decrease of prevalence of HCV infection (< 60%), observed in those subjects entered in the Community in the last 3 years is clearly associated with increased numbers of addicts not injecting drugs (also heroin).
More detailed data on epidemiology of HIV and HCV infections, including the role of sexual transmission, will be presented.

The changing spectrum of risk behaviours in Italian drug user
Sharing of needles or syringes. During the years a decreasing percentage of intravenous drug users (IDVUs) reported “frequent” sharing (from about 40% in 1986 to 10-15% in the last ten years). Most of IDVUs continues to report “sporadic” sharing, that generally means sharing with the partner or with a trustworthy friend. The percentage of IDVUs referring that “never” shared syringes was below 20% before 1985 (the year of HIV serological test) and is stable (40-50%) in the last 10 years.

Use of syringes. The number of drug addicts through non parenteral route has gradually increased from below 5% (subject entered before 1997) to 30% (2007). Considering heroin addicts, less than 5% of those starting addiction before 1990 were non-injectors, whereas the percentage has increased thereafter: 10% for those starting in 1991, 23% for those starting in 1995, 42% for those starting in 2003, and 67% for those starting in 2007.

Sexual risk. We don’t ask our guests about sexual orientation, so we have no data on this topic. “Casual” sexual intercourse is common in drug users (59% of males and 63% of females), independently from prostitution, and the percentage has remained quite stable in the years.
Non using females often have enter into relationships generally with male drug users (85,7%), whereas only 38,8% of non using males have drug using female partners.
Not considering prostitution, 12,7% of males and 8,6% of females reported regular prophylactic use, whereas 58,2% of males and 63,8% of females reported “never” using prophylactics. The percentage of regular use of prophylactic ha only partially increased in the years (below 10% before 1995 to about 20% in the last years).
We suggest that the diffusion of HIV infection occurs in drug users also through unprotected sexual intercourse: the prevalence of HIV infection is higher in females drug users than in males (26,9% vs 18,6%) and this higher risk has remained stable over the time. Moreover we have observed cases of HIV infection in non using syringes drug addicts, and the number of these cases are increasing in the last years.
Treatment of HIV and HCV infection in active drug users and in former drug users
To assess the access to, the adherence, and the efficacy of antiretroviral therapy in active and former drug users, we analyzed the data on about 3.000 HIV-infected patient, followed from 1985 to 2007.
Our data let us to conclude that, in Italy, drug users have a good access to antiviral therapy (ART). From 1990 to 1996 (the period of low efficacy therapy) a minority of patients entered in the Community have been previously exposed to anti-HIV drugs (10% in 1991, 40% in 1995), but an high percentage of them were unaware of HIV infection; during the HAART-era only few patients were unaware of HIV serostatus, and the percentage of ART-naïve decreased from 40% (1996) to 25% (1998 and thereafter). These very high percentages of ART-exposed subjects let us to suggest that most of these patients were over-treated, having started HAART sometimes too early.

Adherence is confirmed to be a great problem in active-drug users: of 196 drug users in HAART at the entry in the Community (from 1996 to 2006), 42,3% were in virological failure. Only 12% of failing patients had a wild type virus, whereas the others had genotypic resistance to one, two, or three class of antiretroviral drugs (respectively 21%, 40% , and 27%).
In the multivariate analysis virological failure resulted associated only with “active” drug use (virological failure= 53%), self reported adherence, and cumulative exposure to antiretroviral drugs.
In the same period (1996-2006) the incidence of virological failure was of 14,5% in 456 evaluable former drug users who received HAART during or after the residential therapeutic program (median follw-up of 39 monthes). In multivariate analysis the principal causes of virological failure were being in virological failure at entry in the Community (p=0,005) and a reported low adherence. The risk of virological failure was very low (7,4%) in the 162 naïve subjects starting HAART during the therapeutic program; moreover, in these subjects the efficacy was non related to the pharmacological combination of HAART.
Also adherence was correlated with the risk of virological failure. Periods of low adherence were reported by 15% of former drug users; the major reasons were: depression and other psychiatric diseses (52.2%), non acceptance of HIV-disease (34.0%), simple dimenticance (28.3%), fear of side-effects (23.7%), and desire to leave off the therapeutic program.

Interferon-based treatment for HCV-infection is generally considered problematic in drug users because low adherence, high alcohol intake, and the high prevalence of psychiatric disorders, a contraindication to treatment. In our experience a residential therapeutic program for drug addiction could be considered an ideal opportunity to treat HCV infection, having the wisdom to choose the right moment to start (not too early, not too late), and of treating (or also preventing) co-esisting psychiatric disease before hepatitis treatment. Data on tolerability and efficacy will be presented.

Antonio Boschini, Marco Begnini, Gianluca Cecconi, Camillo Smacchia, Francesca Caselli, Annamaria Polifemo, Paolo Pantani, Paola fabbri, et al.
Centro Medico, Comunità di San Patrignano. 2 Marzo 2009
Contact Alt Email: mbarzanti@sanpatrignano.org
Contact Phone: +390541362111

OS1.3/2
Hepatitis C Action Plan For Scotland.
Sharon Hutchinson [1], David Goldberg [2], Gareth Brown [3], John Dillon [4], Avril Taylor [5], George Howie [6], Syed Ahmed [7], Kirsty Roy [8], Miriam King [9]
Health Protection Scotland [1 2 8 9], United Kingdom, Scottish Government [3], United Kingdom, Dundee University [4], United Kingdom, University of West of Scotland [5], United Kingdom, Health Scotland [6], United Kingdom, NHS Greater Glasgow & Clyde [7], United Kingdom

In 2004, the Scottish Government recognised that "Hepatitis C is one of the most serious and significant public health risks of our generation". By December 2006, Health Protection Scotland (HPS) estimated that 50,000 persons in Scotland had been infected with the Hepatitis C virus (HCV); approximately 90% of those infected acquired the virus through injecting drug use behaviour.

Methods
In 2006, the Health Minister and Chief Medical Officer launched Scotland's Hepatitis C Action Plan. Its aims are to: prevent the spread of HCV, particularly among injecting drug users; diagnose HCV-infected people; and ensure that those infected receive optimal treatment, care and support.

The Plan is two-phased: Phase I (September 2006 - March 2008) involved generating evidence and translating this into proposed actions to improve services during Phase II. An Action Plan Coordinating Group (APCG) oversaw the implementation of the plan, and was supported by Working Groups corresponding to the areas of (i) Prevention, (ii) Testing, treatment Care and Support and (iii) Education, Training and Awareness-Raising.

Results
Phase I of the plan has been completed: each of the three working groups generated evidence, which they translated into proposed key issues and actions. Initial proposals were shared with the APCG, NHS Board HCV Executive Leads, and nearly 200 stakeholders. Actions were modified in accordance with the findings of the consultation and were approved by the APCG by early 2008. Approval by the Minister for Public Health was given for Phase II to be launched on May 19, 2008.

Phase II will be coordinated by HPS on behalf of the Scottish Government. £43 million has been allocated to the Plan over three years.

Conclusion
The approach taken by Scotland to tackling HCV - holistic, multi-disciplinary, involving cooperation between government and key agencies, and supported by substantial funding - could be a model for other countries
Contact Phone: +44 (0)141 300 1138

OS1.3/3
A new T cell subset identifying HIV+ non-progressors
A new T cell subset identifying HIV+ non-progressors
Antonio Cosma [1], Claudia Dembek, Silvia Heltai, Sarah Kutscher, Simone Allgayer, Priscilla Biswas, Silvia Ghezzi, Elisa Vicenzi, Dieter Hoffmann, Hermann M. Schaetzl, Peter Reitmeir, Giuseppe Tambussi, Johannes R. Bogner, Paolo Lusso, Hans J. Stellbrink, Elena Santagostino, Frank D. Goebel, Marco Tinelli, Guido Poli, Volker Erfle, Mauro Malnati
Helmholtz Zentrum Muenchen [1], Germany

Long-term survival of HIV-1 infected individuals is usually achieved by continuous administration of combination antiretroviral therapy (ART). An exception to this scenario is represented by HIV-1 infected nonprogressors (NP) who maintain relatively high circulating CD4+ T-cells without clinical symptoms for several years in the absence of ART. It is commonly believed that the immune system plays an important role in controlling or limiting HIV-1 replication in NP. Here, we analyzed the functional and differentiation phenotype of Nef- and Tat-specific CD8+ T-cells in a cohort of HIV-1 infected NP in comparison to late-progressors (LP, i.e. ex-NP), ART-treated seropositive individuals and individuals undergoing a single cycle of ART interruption.

We observed that a unique feature of NP is the presence of HIV-1-specific CD45RA+ CD8+ T-cells secreting the CCL4/MIP-1β but not IFN-γ. CD45RA+ IFN-γ^{neg} CCL4/MIP-1β+ CD8+ T-cells may act as mediators of an effective antiviral immune response and represent a marker of long-term natural control of HIV-1 disease progression. In addition, this novel CD8+ T-cell population that we named MIRA (MIP-1β+ CD45RA+), represents a relevant functional T-cell subset in the evaluation of the immune responses induced by candidate HIV-1 vaccines.
Contact Alt Email: cosma.antonio@gmail.com

OS1.3/4
TB, HIV and drug Abuse Treatment
Gerald Friedland, Yale School of Medicine, United States

The linkage between drug use, particularly injection drug use, HIV/AIDS and tuberculosis has been recognized since the beginning of the HIV pandemic. These three co morbid conditions synergistically impact upon one another, with resultant adverse biologic, epidemiologic and clinical consequences.

Although treatment of HIV and TB in substance abusers can be successful, their confluence presents special clinical challenges which can result in increased morbidity, mortality and decreased therapeutic success. These challenges include: the added complexities and deficiencies in TB diagnostics and treatment in the presence of HIV and substance abuse, the need for substance abuse treatment to insure TB and HIV therapeutic success, additive stigma and discrimination associated with all three diseases, inadequate adherence to therapy for TB and HIV among substance abusers, potential for additive medication side effects and toxicities when these diseases are treated together, treatment complicating pharmacokinetic and pharmacodynamic drug interactions between substance abuse, HIV and TB therapies and the appearance and increase in drug resistant TB among drug users. These challenges will be further defined in this talk.

Successful strategies to address these challenge will be described and include: special outreach programs to reach substance abusers in non-medical settings including prisons and hard to reach communities, active screening programs for HIV and both latent and active TB among drug users, knowledge of important drug interactions among therapies for the three diseases, use of isoniazid preventive therapy in latent TB infected drug users, creative strategies to insure medication adherence for TB and HIV, attention to airborne infection control in medical, prison and community congregate settings and use of rapid diagnostic tools for TB identification and drug susceptibility testing. All of these are best accomplished in comprehensive, collaborative and integrated services for substance abusers that address each of these co morbid conditions.

2.1.Dynamics of the HIV-Epidemic

OS2.1/1
Molecular epidemiology Hepatitis C virus in Belarus

Vladimir Eremin [1], Christophe Olinger [2], Elena Gasich [3], Vladimir Lukashov [4], Igor Karpov [5], Dmitryi Danilov, Claude P. Muller
Research Institute for Epidemiology @ Microbiology [1 3], Belarus, Institute of Immunology, National Public Health Laboratory [2], Luxembourg, Academic Medical Center, University of Amsterdam [4], Netherlands, Belarus State Medical University [5], Minsk, Belarus

Background:The HIV-infected subtype A IDUs come to light genotypes 1a (7.1%), 1b (50.%), 3a (35.7%), 4a (3.6%), 4d (3.6%) of hepatitis C virus while at patients with a monoinfection on a hepatitis C are defined 1b (70.4%), 3a (25.9%) and 1a (3.7%) genotypes.

Methods:
ELISA, Western blot, PCR, RT-PCR, sequencing ABI Prism 3100 Avant, SeqScape, BioEdit software, phylogenetic analysis was performed using the MEGA4 software with the Neighbour-Joining and Kimura 2-parameter method,.

Results:
For molecular characterization of HCV strains a total of 113 serum samples were obtained from patients with known anti-HCV status from the Infectious Disease Hospital in Minsk.
Almost 70% of HCV patients were coinfected with HIV, a number which is similar to the one found in other countries. In 60 of the 88 anti-HCV positive only and 18 of the 25 HBsAg/anti-HCV double positive patients, HCV RNA was detected and sequenced in the core/E1 region. Phylogenetically the 78 strains belonged to hepatitis C subtypes 1b (53.8%), 3a (38.5%), 1a (5.1%), 4a (1.3%) and 4d (1.3%). Subtypes 1a, 4a and 4d were only found in HIV positive patients while the prevalence of subtypes 1b and 3a was 81.8 and 18.2 % in HIV negative patients and 42.9 and 44.9% in HIV positive patients.
In the HCV strains found in Belarus, the average distances on the nucleotide level ranged from 5.7 to 7.1% within subtypes and from 22.4 to 33.8% between subtypes with an average distance between all Belorussian strains of 21.8%. The diversity within subtype 3a in Belarus was 1.7 times lower than the diversity of all worldwide strains belonging to the same subtype while for subtype 1b it was 1.2 times lower. Despite the higher prevalence of 1b, this may indicate that 3a has been circulating longer in Belarus or that it has been introduced multiple times from various sources and/or countries. BLAST searches of the different HCV strains did not reveal a closer relationship of Belorussian subtypes with other strains from the same geographic region but indicated for both subtypes 1b and 3a similarities with strains found worldwide. For subtype 1b, this could possibly be explained by the world-wide use of contaminated blood products such as in anti-D immunoglobulin in 1977. For subtype 3a however, circumstances similar to those in Egypt may have caused its spread. Also on a protein level, the HCV strains did not reveal amino acid substitutions specific to strains or subtypes found in Belarus confirming the multiple introductions from abroad.
Contact Alt Email: veremin@hotmail.com
Contact Phone: +375 17 268 04 16

OS2.1/2
HIV in Western and Northern Europe

Valerie Delpech, Health Protection Agency, United Kingdom

An estimated 800,000 million people were living with HIV in western Europe in 2007 and approximately 25,000 new cases of HIV were diagnosed in the same year (representing a rate of diagnosis of 77.0 per million population). The epidemics have diversified over time in this region. As in many parts of the world, new infections continue to disproportionately impact vulnerable populations including men who have sex with men (MSM) and migrants. MSM continue to be the group most at risk of acquiring HIV in Northern Europe and account for 40% of all new diagnoses, however, new diagnoses attributable to heterosexual transmission have risen sharply over the past decade and now contribute to the largest share of persons newly diagnosed in countries such as the UK and France. The majority of these cases, however, acquired their HIV infection in a country with a generalised epidemic, predominantly in sub-Saharan Africa. In general, exposure related to contaminated injecting equipment and the sex trade accounts for a smaller share of new HIV infections in Northern Europe and this is primarily attributed to early and ongoing implementation of needle exchange and safer sex programs in these countries. Although there are well established HIV surveillance systems across this region, the challenge remains in measuring and tracking HIV incidence, sexual behaviours and STIs in real time. Addressing structural barriers, social sigma and inequalities that fuel the epidemic and ensuring prevention and intervention efforts are primarily aimed at vulnerable populations remain priorities in controlling the HIV epidemic.

OS2.1/3
Current epidemiological HIV/AIDS situation in Former Yugoslav countries

Ljubica Bogosavljevic [1], Bozidar Petrovic [2]
Municipality of Arilje [1], Serbia, Health centre of Arilje [2], Serbia

Current epidemiological HIV/AIDS situation in Former Yugoslav countries (exYC) The work presents current epidemiological HIV/AIDS situation in Serbia and exYC .
In the Serbia 1985 - 2007, there were 2178 reported HIV+ cases , of which 1381 (63%) developed AIDS, 917 (66%) died. In spite of low rate of HIV prevalence (0.01%) epidemiological situation is potentially unsafe.
Since 1999 the number of AIDS cases and died gradually decreased but newely 70-90 HIV positive cases are registered per year. The biggest number of HIV + is found at the age 25 – 39.
In relation to transmission of HIV the majority are registered among IDUs, total 43 %, with tendency of decrease of 72 % in 1991, with 18 % in 2006. The next is transmission through HC or MSM contact with tendency of increase , from 15 % in 1991, with 51 % in 2006. Transmission mode for 26 % is not aveilable.
With an aim to estimate the frequency of HIV infection and risk behavior among population in vulnerable groops the research was done in 2007. The research encompassed IDUs, MSM, commercial sex workers (CSW), the young from Roma population (RP), the young at rehab institutions, imprisoners and PLWHA. Follow up instruments: serological testing, behavioral research, questionnaire, interview.

Among IDUs, in the sample of 939 persons in 3 cities estimated HIV prevalence was (3.7 % - 1.6 % - 0.8 %) and HCV infection (69.4 % - 44.9 % - 49.7 %).
Among MSMs, in the sample of 496 persons in 2 cities estimated HIV prevalence (6.1 % - 2.4 %). Among CSWs, in the sample of 139 persons in 1 city estimated HIV prevalence was 2.2 %
Key results of this research will serve the further follow up, creation and implementation of aimed preventive actions for the risk population . Although all former Yugoslav countries (exYC) have low HIV prevalence, under 0.1 percent, the true epidemiological picture is still not clear. This may be partly due to a low level of infection , but there is relatively weak national surveillance system in some exYC lacking specific data on the risk groups
From the beginning of epidemic in 1985 until 2008 there were registered : in Montenegro (MN) 86 HIV+ cases (45 AIDS , 29 died) , in TFYR Macedonia (TFYRM) 111 HIV + cases (85 AIDS , 60 died) in Bosnia and Herzegovina (BiH) 156 HIV+ cases (98 AIDS, 80 died) , in Slovenia (SLO) 349 HIV + (136 AIDS, 78 died) , in Croatia (CRO) 714 HIV+ (284 AIDS, 149 died).
The biggest part of HIV+ cases in all exYC are male: in SLO 95 %, in CRO, BiH and MN 80%, in SRB 75%, in TFYRM 68%.
There were heterogeneity in HIV transmission modes : through HC was reporeted in TFYRM in 63 % cases, in BiH 54 % , in MN 51% , CRO 39% , SRB 24 %, SLO 5 %. MSM transmission is dominant in SLO 95% cases, in CRO 43 % , MN 31%, SRB 30 %. IDU transmission decrease in all exYC: in BiH 16% , in SRB 14%, in TFYRM 10 %, in CRO 9%, in MN 5 %.
In many exYC persists a large number of HIV+ cases which transmission mod is not available: in SRB 26%, in TFYRM 20%, in BiH 16%, in CRO 9%, in MN 7 %.
MTCT is rare.
Discrepanses are less at age groups with the highest HIV incidence : FYRM , BiH 20–29 , CRO 25 – 39, SLO 30 -39 years old. In all exYC voluntary HIV testing is on low level.
Within all exYC is registered increasing number of HIV+ cases, but stagnation or decreasing number of AIDS and deaths related with HIV.
Some particularity are notesed among exYC: increasing number of HIV+ cases in SLO from 2003 is caused by growing diagnosing among MSM . IDU and MTCT was not registered since 2001 . In MN the most affected groups are seilors and tourist workers on coast, in FYRM are frequent cases HIV+ and TB (63%).
Contact Alt Email: psiho5@ptt.rs
Contact Phone: +381660615

2.2. Molecular Epidemiology

OS2.2/1
HIV-1 in Eastern Europe: epidemiological, virological and sociological factors associated with the transition from a small-scale to the large-scale epidemic
Vladimir V. Lukashov, Academic Medical Center, University of Amsterdam, Netherlands

While the global HIV-1 epidemic was recognized in the early 1980s, HIV-1 had been circulating in humans for decades before 1980s. Several factors have been considered to explain the transition from a small-scale to the large-scale epidemic. However, the exact (socio)-epidemiological and virological factors associated with this transition remain unknown.

Goal of the programme/study
To study virological and socio-epidemiological factors associated with the transition of the HIV-1 epidemic in Eastern Europe from a small-scale (limited circulation for a decade, 1985-1995) to the large-scale epidemic, with the rise of HIV-1 incidence after 1995 being the largest in the world. Materials and method/programme description
Epidemiological data and HIV-1 sequences (gag, pol and/or env regions) were obtained from >300 infected individuals representing the three stages of the epidemic: the initial small-scale epidemic (Russia, Belarus, Lithuania, 1985-1995), the first localized outbreaks (Odessa and Nikolaev, Ukraine, and Svetlogorsk, Belarus, 1995-1997), and the subsequent explosive epidemic (Russia, Belarus, Ukraine, Lithuania after 1996). The three stages of the epidemic were associated with different affected risk groups: (homo)sexual transmission dominated during the small-scale epidemic, >80% of infections in the first outbreaks were among IDUs, and most recently sexual transmission is becoming the main route of infection.
Results
The initial small-scale epidemic in Eastern Europe was associated with distinct HIV-1 subtypes circulating in different risk groups. The first HIV-1outbreaks were caused by HIV-1 subtype A (IDU-A) in Odessa and Svetlogorsk and subtype B (IDU-B) in Nikolaev. Subsequent explosive epidemic is associated with the spread of IDU-A viruses.
Summary and conclusions
The transition of the HIV-1 epidemic in Eastern Europe was associated with a decrease of virus heterogeneity and the spread of IDU-specific virus diversity patterns to non-IDU risk groups. The Svetlogorsk case represents an unprecedented outbreak of single-source infection among >1,000 individuals. IDU-A viruses account for >90% of infections in Eastern Europe.

This study was supported in part by the INTAS grant 05-1000004-7749.
Contact Alt Email: volodya_nl@mail.ru

OS2.2/3
Genetic variability of HIV in Russia
Eduard Karamov [1], Aleksandr Pronin [2], Galina Kornilaeva [3], Igor Serkov [4], Pavel Zenin [5]
The D.I. Ivanovsky Institute of Virology [1], RAMS, Russian Federation, Centre for Prevention of AIDS and Infectious Diseases of Moscow Region [2],Russian Federation, The D.I. Ivanovsky Institute of Virology, RAMS [3],Russian Federation, Centre for Prevention of AIDS and Infectious Diseases of Moscow Region [4], Russian
The D.I. Ivanovsky Institute of Virology [5], RAMS, Russian Federation

Background. The epidemic of HIV in Russia is currently in the stage of active spread. The early phase of the Russian epidemic, formed by multiple heterogeneous introductions from diverse regions of the world, was represented by A, B, C, D, F, G, and H subtypes. Subtypes B, C, and G prevailed before 1996. The new epidemic was related to the introduction of HIV-1 subtype A and of a new HIV-1 subtype recombinant, gagA/envB. HIV-1 subtype A variants affecting primarily IDUs accounted for more than 90% of new cases of the infection in 1999-2001. Note that the epidemic was characterized by founder-effects (the differences between viruses isolated in various regions of Russia affected no more than 1-2% nucleotides). Since 2003, heterosexual transmission of HIV-1 has been increasing. Therefore, permanent monitoring of circulating HIV-1 forms makes it possible to reveal predominant HIV-1 variants.

TB plays significant role in pathogenesis HIV as opportune infection. In 2004 in analytical review scientists predicted significant worsening of epidemic situation in Russia at next years because of developing HIV into AIDS, and accordingly to prediction more than half of HIV-infected with AIDS will suffer TB. Scientists of Federal scientific-methodology center of preventing of AIDS conducted researching from 2004 to 2006. They showed that in 15 regions of Russian Federation not less than in 50% cases death reason of HIV-infected was TB. These data shows pathogenic correlation between TB and HIV.

Methods. To study genetic and antigenic variability of HIV-1, we are collecting sera of HIV-infected patients. Extraction of the viral RNA is conducted using magnetic particles. Nested PCR is used to amplify env and gag regions of HIV-1 genome. The amplified regions are detected by electrophoresis in 1% agarose and examination of the gels under UV.

Results. We determined the sequences of amplified env and gag regions of HIV-1 genome and the subtypes of the isolates.

Conclusions. Permanent monitoring of circulating HIV-1 forms allows revealing predominant HIV-1 variants. This holds important implications for diagnosing, treating, and controlling HIV infection. All data generated (including epidemiological data on age, gender, transmission pathways, presence of coinfections, etc.) allow us to understand the nature of HIV/AIDS epidemic and predict its evolution in Russia. Our serum collection from HIV-1 patients serve for development of HIV vaccine, monitoring of HIV prevalence and accidence, detecting of subtype (genotype and phenotype) of circulating virus strains in Moscow region. At present our collection has 300 samples of blood sera of HIV-positive individuals.
Virus variants isolated from early seroconvertors being actual strains may be used for development effective HIV vaccine.
Isolation and storing of PBMCs of early seroconvertors are performed accordingly with international protocols. At present our collection includes 15 samples of early seroconvertors.
Contact Alt Email: karamov2004@yandex.ru

2.3. HIV-Prevalence/Incidence measurement

OS2.3/1
SIALON: HIV prevalence, undiagnosed HIV cases and Risk behaviour among MSM in Verona (Italy) and Barcelona (Spain)
Massimo Mirandola [1], Cinta Folch [2], Jean-Pierre Foschia [3], Laia Ferrer [4], Michele Breveglieri [5], Rafa Muñoz, Furegato Martina, Jordi Casabona, Gios Lorenzo, Ramarli Dunia
Regional Centre for Health Promotion – ULSS 20 Verona – Veneto Region [1 3], Italy, Centre for Sexually Transmitted Infection and AIDS Epidemiological Studies of Catalonia [2 4], Spain, CRRPS - ArciGay – Veneto [5], Italy

Background
The use of effective and valid research methods for gathering epidemiological information is of crucial importance for the implementation of evidence-based preventive actions. HIV and STI prevalence reported among Men having Sex with Men (MSM) has risen in recent years in Western European countries concomitantly to an increase in unsafe sexual practices . The same information is not available for all countries of Eastern and Southern Europe.

Objective
The overall objective is to obtain reliable and valid information on HIV and syphilis prevalence, to study sexual behaviour risk patterns and the determinants of VCT access among MSM in gay venues, using a non-invasive outreach testing method based on oral fluid samples in selected countries of Southern and Eastern Europe.

Methods
Study design: multi centre biological and behavioural cross-sectional study. The survey is designed to obtain a "one time" estimation of the prevalence of HIV and Syphilis in the study population (MSM attending gay venues).

Subjects:
The subjects recruited are male individuals who have had any kind of sex (oral and anal, penetrative or not) at least once with another man during the last 12 months before the enrolment in the study. At the end of the project 2,800 subjects will be enrolled in the study (400 per participating country: Czech Republic, Slovakia, Slovenia, Spain, Greece, Italy, Romania)

Sampling:
A Venue-Day-Time (VDT) sampling method is being used. This sampling technique is a probability-based method for enrolling members of target population at times and places where they congregate or live. Time-location (or time-space) sampling is a procedure in which venue/day/time units are the primary sampling units (PSU). This method has been used in several studies because it allows to construct a sample with known properties and to make statistical inference to the larger population of venue visitors. A sample size estimation for prevalence study has been calculated on the basis of previous studies when available.

Statistical Analysis
The HIV prevalence is estimated by dividing the number of oral fluid HIV positive MSMs with the total number of MSMs participating in the study. In addition a 95% Confidence Interval is calculated for each estimate. The STATA 10 SVY suite, a specialized set of command for survey data, is used for data analysis.

Tools:
For collecting behavioural data, a self administered questionnaire has been developed using questionnaires used by partners in previous studies, information from the literature and the UNGASS indicators for the most at risk population (UNAIDS) .

An oral fluid collector device is used to collect biological sample. On each sample, EIA testing (GENSCREEN HIV 1 / 2 version 2, BIO-RAD) is performed to detect anti HIV antibodies and TRFIA (Time Resolved Fluorescence Immuno Assay) to detect anti-treponema IgG.
Questionnaire data and biological test results have been successively linked together for each subject using a barcode.

Preliminary results
At this stage data are available only for two countries: Italy (Verona) and Spain (Barcelona). In Verona the number of MSMs enrolled in the project were 405 while in Barcelona were 400. Oral Fluid samples valid for testing were 797. Findings presented here are limited to the analysis of data from these two sites. Data on syphilis testing are not available yet.
As for the age of respondents, the average in Verona was 35.8 year (SD 10.3) while in Barcelona it was 38.2 (SD 10.2). The percentage of young people aged < 25 year was 15.10% and 9.98 % respectively.

(UNGASS indicator N.8) HIV testing practice
The percentage of respondents who had an HIV test in the last 12 months and that also got the results of the test was 52.97 [IC 48.08;57.86] in Verona and 56.11 in Barcelona [IC 51.23;60.99]. The same indicator for MSM aged < 25 showed an estimation of 34.43 CI [22.45 ; 46.40] in Verona and 60.00 CI [44.75; 75.25] in Barcelona.

(UNGASS indicator N. 9) Percentage of MSM reached by an HIV prevention programme
The percentage of MSM reached by an HIV prevention programme was significantly higher in Barcelona (83.29% [IC 79.62;86.96]) than in Verona (71.29% [IC 66.86;75.72]). The same indicator for MSM aged < 25 showed an estimation of 57.38 CI [44.91 ; 69.84] in Verona and 80.00 CI [67.55 ; 92.45] in Barcelona.

(UNGASS indicator N.14) Percentage of respondents who both correctly identify ways of preventing sexual transmission of HIV and who reject major misconceptions about HIV.
As for the knowledge and misconception of HIV transmission routes as measured by this indicator, the percentage of respondents who correctly indentified all routes and misconceptions was 76.34% [IC 72.11;80.56] in Verona and 63.61% [IC 58.84;68.39] in Barcelona.

(UNGASS indicator N. 19) Use of a condom last time they had anal sex
The percentage of respondents reporting the use of a condom the last time they had anal sex with a male partner was significantly lower in Verona (45.58% : IC [40.35;50.82]) compared to Barcelona (57.18 % : IC [52.01;62.35]). The same indicator among young people (< 25 y. o.) showed a percentage of 25.86 IC [14.54;37.19] in Verona and 53.85 IC [38.12;69.57] in Barcelona. For people over 25 y. o. the percentage is 49.49 IC [43.73;55.24] in Verona and 57.59 IC [52.12;63.07] in Barcelona.
On the other side, the percentage of respondents reporting not using a condom the last time they had anal sex with a steady partner was 62.96% in Verona sample and 63.09% in Barcelona sample. As far as anal sex with a casual partner is concerned, the percentage was 23.45% for Verona and 21.39% for Barcelona.

In Table 1 the percentages of respondents reporting anal sex with an inconsistent condom use during the last 6 months are presented. The differences between cities are not statistically significant.

Table 1: Unprotected anal sex with inconsistent condom use over the last six months

Table 1: Unprotected anal sex with inconsistent condom use over the last six months

	steady partner	casual partner
Verona	**62.10**	**38.11**
	[55.62 ; 68.57]	[32.23 ; 44.00]
Barcelona	**62.63**	**35.99**
	[55.69 ; 69.57]	[30.42 ; 41.55]

(UNGASS indicator N.23) HIV prevalence
The UNGASS indicator n° 23 requires information on biological ascertained prevalence so this information goes beyond behavioural surveillance. The HIV prevalence was lower in Italy (46 subjects: 11.56%) than in Spain (66 subjects: 16.54%) . Among young people (< 25 y o) the prevalence was 4.92% [IC 0.00;10.37] in Verona and 12.50% [IC 2.21;22.79] in Barcelona. As far as subjects aged ≥ 25 are concerned the prevalence was 12.76% [IC 9.18;16.34] and 16.99% [IC 12.88;20.20] respectively.
In Table 2, the prevalence according to the type of venue is reported. From the table it is clear that there are significant differences between cities and venues.

Table 2: Prevalence of HIV positive samples according to venue type

Table 2: Prevalence of HIV positive samples according to venue type

		Disco	Naked Sexshop	Sauna	Bar	Cruising	Total
Verona	**n**	**5**	**6**	**30**	**5**	**0**	**46**
	%	6.33	23.08	19.23	3.91	0.00	11.56
	CI	[0.93 ; 11.72]	[6.81 ; 39.34]	[13.02 ; 25.44]	[0.53 ; 7.28]		[8.40 ; 14.71]
Barcelona	**n**	**22**	**9**	**16**	**10**	**9**	**66**
	%	21.15	18.00	15.38	9.52	25.71	16.58
	CI	[13.27 ; 29.04]	[7.30 ; 28.69]	[8.42 ; 22.35]	[3.88 ; 15.165]	[11.17 ; 40.26]	[12.91 ; 20.25]

Undiagnosed HIV cases
An important indicator, not specifically considered by the UNGASS paper, is the number of people carrying the infection but not aware of their serological status. In the study, the UNGASS indicator n° 8 on testing behaviour was used to identify, among the subjects tested HIV positive on oral fluid samples, those MSMs reporting the last negative HIV test within the previous 12 months before the enrolment in the study. Using this categorization of all HIV positive subjects the percentage of subject not aware of their real serological status was 45.45% in Verona and 39.13% in Barcelona.

Conclusions
The HIV prevalence among MSM attending the gay scene and gay venues in Barcelona is in line with previous studies even if it seems to be slightly lower than expected. Maybe this result may be related to the use of a different sampling method (Time-Location-Sampling versus convenience sampling).
In Verona data on HIV prevalence among MSM were not available and the estimated prevalence seems to be quite high.
One of the most relevant findings of these preliminary results is that among oral fluid HIV positive subjects, nearly half reported a negative HIV test in the last year and so they were not aware of their real serological status. This data seems to indicate that quite a number of infections were recently acquired over the last 12 months. If these data are confirmed it is very likely that a new epidemic wave is currently developing.

The SIALON project “Capacity building in HIV/syphilis prevalence estimation using non-invasive methods among MSM in southern and Eastern Europe” has received funding from the European Commission under the EC/PHP 2003-2008. However, the sole responsibility for the project lies with the author and the European Commission is not responsible for any use that may be made of the information
Contact Phone: +390458012242

2.4. Diagnostics & Monitoring Tools aimed at hard-to-reach populations

OS2.4/1
BEHAVIOURAL SURVEILLANCE AMONG IDU ATTACHED TO FIRST TREATMENT DEMAND MONITORING IN SLOVENIA
Irena Klavs
Institute of Public Health, Slovenia

Introduction:
Infectious diseases surveillance, including behavioural surveillance is essential for evidence based prevention and control among injecting drug users (IDU) and monitoring their impact.
Methods:
Monitoring of drug use related indicators trends among IDU demanding treatment for the first time has been established in the early 1990s according to the Council of Europe Pompidou Group project. Gradually, the collection of treatment demand indicator data was spread out to the whole network of Centres for Prevention and Treatment of Drug Addiction with national coverage. Since 2002, the last revision of the data collected, behaviour indicators included the following two important indicators: (a) shared needles and syringes during the month preceding treatment demand for current IDU and (b) shared other injecting equipment during the month preceding treatment demand for current IDU.

Results:
During the period of last ten years, the proportion of current IDU reporting sharing needles and syringes during the month preceding the first treatment demand has decreased from 30% in 1998 to 9% in 2007. Similarly, the proportion of IDU reporting sharing other injecting equipment during the month preceding the first treatment demand has decreased from 43% in 1998 to 24% in 2007.
Conclusions:
Our results suggest that the gradually expanding needle and syringe exchange and distribution programmes in Slovenia had the desired impact on the reduction of sharing of injecting equipment among IDU.
Contact Alt Email: Irena_Klavs@t-2.net

3.1 Drug Use, Sexuality and HIV-protection/risk behaviour

OS3.1/1
Evolution of the Spanish HIV/AIDS epidemic among IDUs and the answers given by government/ NGOs from a historical perspective.
Maria J Bravo [1], Luis de la Fuente [2], Jose Pulido [3], Gemma Molist [4], Sara Santos [5], Maria Teresa Brugal [6]
Nacional Centre of Epidemiology-ISCIII-CIBERSP [1 2 3 4], Spain, Nacional Centre of Epidemiology-ISCIII-CIBERSP [5], Spain, Agencia de Salut Pública de Barcelona-CIBERESP [6]

Illegal drug consumption, especially use of the injected route, spreads silently and efficiently. In Spain, an explosive epidemic of heroin use (mainly injected) in the late 70s produced a substantial burden of morbidity and mortality. An historical review of the evolution of the heroin injection and HIV/AIDS epidemics among drug injectors in Spain can help guide public health decision-making in other countries.

In the mid 70s, the epidemic of heroin injection in Spain was in its early stages. The year 1975, a time of worldwide oil crisis, marked the end of an authoritarian regime, notable for its extreme cultural and economic isolation. In the ensuing 5 years, Spain underwent a political transition in a climate of great effervescence and expectations of social change, especially among youth. Many of the young people who had opposed the dictatorship, however, found that their expectations of political and social change were only slowly and partially met. It was in this context that heroin injection spread. The practice became popularised in an abrupt process, “like fire in the grass”, in the words of one heroin injector.

In 1985 the National Plan on Drugs was created to respond to the social and health problems related with illegal drug use. The NPD, arguing for the need to control diversion of methadone to the illegal market, drastically restricted the use of this substance as an opiate substitute. Consistent with this measure, priority was given to treatment programmes focusing on abstinence. It was known from several studies that the prevalence of HIV infection in injectors was over 40%. It is now estimated that in 1985 some 16,000 drug injectors were infected; in that year 3,942 cases were diagnosed in Spain, 70% of them related with drug injection. It was not until 1990 that, by means of a legal regulation, methadone maintenance treatment (MMT) and other harm reduction programs (HRP) began to be promoted.

HRPs grew considerably in the following decade, from some 3,000 persons in MMT in 1990 to 29,000 in 1995, 78,000 in 2000, and 90,500 in 2002 – with MMT available in all prisons in the country. In a parallel fashion, joint action between the government and non-governmental organizations resulted in the growth of needle exchange programmes (NEP – mobile units, fixed centres, in prisons, and subsidised programs in pharmacies). Moreover, a phenomenon that had been observed in the mid 80s only in the southern part of the country became generalised and consolidated: the change from heroin use by injecting to smoking. The prevalence of HIV infection in the mid 90s in heroin injectors was over 50%, and the prevalence of injection with syringes used by others in the last month ranged from 14% to 27%.

In the last decade, HRPs have become well established, including supervised injection rooms (6 throughout the country by February 2009). The proportion of heroin users who inject, although there are marked geographic differences, has continued to drop: the proportion of persons treated for the first time for heroin dependence that use this drug primarily by injecting decreased from 50% in 1991 to 18% in 2002, and to 15% in 2005. A new epidemiological situation has also been seen in drug injectors: the prevalence of injection with used syringes has declined, as has, in lesser proportion, the practice of syringe-mediated drug sharing, and the rate of new infections related with drug injection is now similar to those of other Western European countries. Nonetheless, the prevalence of HIV infection remains high (30% in 2003-04 in a national sample of injectors admitted to drug dependency treatment), and the persistence of some injection or sexual risk behaviours means that the incidence of infection in some groups remains at an unacceptable level.

The explosive and widespread epidemic of drug injection and the delayed implementation of HRPs were the main factors contributing to the serious epidemic of HIV/AIDS in this population. Likewise, the considerable expansion of HRPs beginning in the mid 90s has helped control the HIV epidemic in drug injectors, which has resulted in a lower incidence of new infections in the whole population.

Funded by the Fundación para Investigación y la Prevención del Sida en España (FIPSE
3035/99) and Proyecto Emergente-Instituto de Salud Carlos III-EPY020-09
Contact Alt Email: bravomar@telefonica.net
Contact Phone: 0034913666387

OS3.1/2
TRUST AND FREE WILL AS THE KEYS TO SUCCESS FOR THE LOW THRESHOLD HEALTH SERVICE CENTERS (LTHSC) - An evaluation study of the effectiveness of health promotion services for infectious disease prevention and control among IDU
Mika Salminen [1], Anne Arponen [2], Henrikki Brummer-Korvenkontio [3], Kirsi Liitsola [4]
National Institute for Health and Welfare 1- THL, Finland [1 2 3 4]

There is a variety of adverse social and health effects related to injecting drug use. Among them, the threat of spreading and increasing infectious diseases is a significant one.

In Finland, the infection risks related to drug use only really became a concern at the end of the 1990s, when hepatitis C virus was identified and the test showing the infection, which was taken into use widely, revealed a significant burden of disease among injecting drug users. At the same time, there were clearer hepatitis B epidemics among the same group as before. When, in addition, the first objective estimates of the number of problem drug users were received in 1997 and they proved to be considerably higher than the previous estimates, the rather large signifycance to public health became apparent.

Therefore it was decided in Finland to start up a new kind of preventive operation in order to prevent infection problems among injecting drug users. The starting point of the operation was the promotion of health-promoting behaviour models through health counselling centres directed specifically at problem users. The guiding principle is the provision of a health counselling service that is low threshold and practical for clients. The immediate purpose of the operation is to prevent drug use-related health hazards, particularly the spread of blood-borne infectious diseases, whereas the longer-term objective is to increase drug users health-related knowledge and desire to look after their own health. From the start, one part of the operation was the exchange of used injecting equipment for clean equipment. Although the long-term goal of the operation is also to reduce drug use, it is not its immediate aim.

The operating model does not, however, contradict the absolute prohibition of the use, sale or distribution of drugs contained in the health and regulatory policies, in the implementation of which there have been no changes in Finland. Instead, the model strives to improve the cooperation between the controlling authorities and social welfare and health authorities, so that more of those suffering from drug dependency will seek treatment. This has happened in many parts of the country.

In the original definition, the operating model was described as follows: A health counselling centre is a place where a[n injectingdrug] user can get clean syringes and needles and where the user can return the used syringes and needles, as well as a place where the user and/or those close to him or her have an opportunity for supportive discussions, referral to services, social and health counselling, as well as having small treatment procedures done, such as vaccinations and tests. In addition, important parts of the framework of the health counselling centres operational criteria are, e.g., Anonymity visiting without a name or any kind of identification, Reachability of the location and the services, User-friendly atmosphere, Dialogue with the users, Practical approach to the operation, ideological and moral Non-judgementality, as well as Realistic hierarchy of goals.

Since the original pilot project, the LTHSC model has been distributed across Finland in such a way that in 2008, there are some 30 centres in operation, covering most of the country. In 2004, an obligation was added in the Communicable Disease Decree for the municipalities to provide health counselling services for injecting drug users, including the exchange of injecting equipment.

In 2007-2008 an evaluation study of the effectiveness of the LTHSC model for the prevention and control of infectious diseases was conducted. The valuation clearly shows that the LTHSC intervention has been a significant factor in the prevention of HIV infections, hepatitis A and B infections, and also partly in the prevention of hepatitis C infections, as well as in the control of epidemics among injecting drug users and also, indirectly, as regards the population as a whole. The operation has achieved the targets set for it originally, and along with the operations growing in the areas of introducing additional services, is reaching the target group and reducing infection risks.

It is particularly worth noting that the very ambitious targets set as regards the HIV situation, suppressing the epidemic and limiting case numbers to under 30 new cases annually, have actually been met. This is not only supported by the data produced by the passive incidence surveillance system (National Public Health Institutes Infectious Diseases Register), but also by targeted, sampling-based incidence studies. Compared with the highly realistic threat scenarios, thousands of HIV infections and at least as many different hepatitis infections have been prevented.

As a principal conclusion, it can be acknowledged that the low threshold health promotion and service centres for injecting drug users have been a successful and, even on the basis of a rough financial estimate, a very cost effective health intervention, and therefore securing the further development and constancy of the operations would be important from the point of view of public health.

The evaluation also shows that the injecting drug user health counselling model forms a working social innovation, which differs from the prevention models previously used elsewhere by successfully combining low threshold health services and health promotion for harm reduction, without having to simultaneously abandon restrictive drug policies. Therefore, the model is also very-well suited for use in places other than Finland.

The model, or different applications derived from it, has also been applied in Finlands neighbouring regions. For example, in Estonia, Latvia and Lithuania, as well as in the Russian region of Murmansk, there are prevention projects in operation that are based on the LTHSC model.
Contact Alt Email: mika.salminen@ktl.fi
Contact Phone: +358405911819

OS3.1/3
Contributions of opiate substitution treatment to HIV/ Aids prevention
Ambros Uchtenhagenm, Research Institute for Public Health and Addiction, at Zurich University, Switzerland

All treatment approaches for drug injectors contribute to HIV/Aids prevention, through reducing injecting and thereby reducing the risk for blood borne virus infections and also the risk for transmitting such an infection. An additional preventive effect is reached by methods to reduce risk-taking behaviour (safer use and safer sex education, availability of sterile injection equipment and of condoms for self-protection); such methods can be integrated into all treatment modalities, if efforts are made to convince staff and authorities to combine the objective of reducing injections with the objective of safe injections in case of continued i.v. use.

In a Public Health perspective, a range of treatment options must be available in order to reach a maximum proportion of drug injectors. In countries where mostly opiates are used intravenously, opiate substitution treatment (OST) is instrumental for obtaining optimal treatment coverage, due to superior attractiveness and retention rates and equal effectiveness and cost-effectiveness in comparison with other approaches.

The evidence for HIV/Aids preventive effects in OST has been reviewed repeatedly and was a basic reason for listing methadone and buprenorphine as essential medicines by World Health Organisation, and for a joint position paper of WHO, UNODC and UNAIDS on OST. The preventive effects consist in reducing injections, reducing risk-taking behaviour, reducing sero-conversions during OST, improving compliance with anti-retroviral therapy and slowing progression in Aids conditions.

A recent multi-country prospective study in 3 Eastern European countries and 4 Asian countries, with most diverse socio-cultural background, health systems and economic development, collected and evaluated data in the implementation and outcomes of OST and of integrating HIV/Aids prevention into OST programmes. The study showed the feasibility and effectiveness of OST in all participating countries, and the effects and limits of integrating HIV/Aids prevention. The presentation closes with some lessonslearned.

OS3.1/4
HIV and drug use among gay men in Germany
Axel J. Schmidt [1],Michael Bochow [2], Ulrich Marcus [3]
Social Science Research Center Berlin [1] [2], Germany, Robert Koch Institute [3], Germany

Background: Drug use, including consumption of larger amounts of alcohol, is frequently discussed as a risk factor not only for the intravenous but also for the sexual acquisition of HIV infection. Among other explanations for the association of drug use and the sexual acquisition of HIV, it has been suggested that under the influence of drugs precautionary measures like the correct use of condoms are employed less frequently and less reliable.

Methods: Repeated behavioural surveillance studies among gay men have been conducted in Germany since 1987. Since 1996, a question on drug use – except use of alcohol – has been included in the survey questionnaires. The question covers the frequency (not at all, 1-2-times, occasionally, frequently, regularly) of the use of drugs (inhaled amylnitrite, cannabinole, amphetamines and other 'party drugs', ketamine, LSD, cocaine, 'Viagra' and similar drugs) in the previous 12 months. Survey data have been analysed regarding changes in the frequency of drug use among gay men over time. The last survey (2007, n=8,136 participants) has been analysed to describe associations of drug use with sexual risk behaviour variables and HIV status.

Results:
Time trends: Amylnitrite (AN) is the most popular drug among MSM, followed by cannabinole (CA) and 'party drugs' (PD). The proportion of survey respondents >24 years who live in larger cities (>500.000), and who report occasional or more frequent use of these drugs has been 28-36% (AN), 15-20% (CA), and 6-9% (PD) between 1996 and 2007, with no evidence of increasing trends for any of the substance groups.

Age and drug use in 2007: While CA was the most popular drug (10%) among young gay men (<25), AN was the most frequently used drug in higher age groups (peak at 40-44 y with 33%). PD were used by 5% of respondents in the age groups 25-44 y, 'Viagra' and similar drugs were used increasingly with increasing age, starting at 1% in young gay men and reaching 15% in respondents older than 60 y.

Drug use and subcultural affinities: all kind of drugs were used particularly frequently in men with affinities to the "leather scene". PD were used frequently by men who often go out to party. AN was used frequently by men with many sexual partners who visit saunas, darkrooms or sex parties.
Drug use, partner numbers and sexual behaviour: Except for AN, which is an almost exclusively 'gay' drug, drug use patterns and frequencies were comparable to the general male population for gay men within monogamous relationships, men with few partners and consistent condom use during anal intercourse. Drug use was higher in men with multiple, often anonymous partners, who inconsistently used condoms for anal intercourse. Compared with gay men who don't use illegal drugs, the proportion with frequent (>4 episodes in the previous 12 months) unprotected anal intercourse with casual partners is approximately doubled in frequent and regular users of CA and AN, and tripled in frequent and regular users of PD.
Discussion: Among gay men in Germany, the use of recreational drugs has not been increasing between 1996 and 2007. Drug use is strongly associated with lifestyle, general risk taking behaviour, and specific gay scenes. Risk taking regarding the use of psychoactive drugs as well as regarding sexual risks are not purely based on individual decisions; they also depend on the social context in which people are living. Prevention strategies aiming at reduction of drug use related harm in gay men should not only target individuals but also subcultural settings.
Contact Phone: +49-30-187543467

OS3.1/5

Guidance on Provider-initiated Voluntary Medical Examination, Testing and Counselling for Infectious Diseases in Injecting Drug Users

Hans Blysta [1], Lucas Wiessing [2], Norwegian Institute of Public Health [1], Norway, European Monitoring Centre for Drugs and Drug [2], Portugal

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) has recently developed guidance on provider-initiated voluntary medical examination, testing and counselling for infectious diseases in injecting drug users (IDUs).
Infectious diseases are among the most serious health consequences of injecting drug use and can lead to important health care costs. Injecting drug users are through risk behaviour and underlying conditions like poor hygiene, homelessness and poverty vulnerable to a range of infectious and communicable diseases. This leads to higher morbidity and mortality in the group compared with the same age groups in the general population. Although HIV- and hepatitis C infections remain the most important public health problem in IDUs, the document recognizes that other blood borne viral infections as well as various bacterial infections play an important role in the general health situation and well being of IDUs.
The guidelines recommend that health providers should provide a standard offer of examination, testing and counselling to IDUs in different health settings like primary health care, special health services for IDUs, low threshold service centres visited by IDUs, rehabilitation centres, dedicated STI clinics and prison health care facilities. Elements included in the consultation should include:

- Medical history and physical examination
- Pre-test counselling, informed consent and possibility to opt-out
- Testing for infections
- Post-test counselling
- Prevention counselling
- Vaccination
- Follow-up and referral routines
- Frequency of examination and testing
- Ethical considerations

This guidance document recommends an opt-out approach to provider-initiated testing and counselling where the IDU indicates what tests of the total package offered he/she would like to exclude. This approach thus stresses, that no tests should be done against a person's wishes or without their knowledge and that informed consent must be given, preferably in written form. In situations where these conditions are likely not to be met (e.g. prison facilities) it is recommended to consider a provider-initiated offer combined with the choice to opt-in, thus the drug user has to ask for each individual test of the package offered.
In provider-initiated testing the following package of tests could be offered standard to all IDUs;

- Serology testing for HIV, hepatitis B, hepatitis C, hepatitis D (if evidence of chronic or recent hepatitis B), hepatitis A and syphilis
- Tests for tuberculosis (chest X-ray, tuberculin skin test and IGRA blood test)
- Swab for culture from abscesses and skin lesions
- Tests for biochemical analysis (ALAT, ASAT, bilirubin)
- Other general blood tests (ESR or CRP, haemoglobin and white blood cell count)

Contact Alt Email: hanshb@broadpark.no
Contact Phone: +47 95044517

OS3.1/6

Discrepancy between who need treatments and not receive

Jens Reimer
University of Hamburg, Germany

With exception of Malta all European Member States and Norway have developed a national Action Plan or a National Drug Policy Strategy in which objectives for drug-related treatment are defined.
Drug treatment is often predominately provided by public agencies, especially in the Eastern European countries. In four countries drug treatment is mainly provided by NGOs. In the majority of the countries drug treatment is financed by public budgets, by health or social insurances and pension funds.
In the Member States and Norway the vast majority of clients are treated in outpatient settings. Furthermore most of the countries reported that clients primarily attend outpatient medically-assisted treatment.
Substitution treatment is one of the major responses to heroin-related problems. Since 2001, methadone has been made available in 26 Member States and Norway, and in 2007 methadone was also made available in Cyprus. The use of buprenorphine has increased over the past few years, especially by office-based medical doctors.
Contact Alt Email: reimer@uke.uni-hamburg.de

OS3.1/7

Guidelines on ‚Prevention and Treatment of Hepatitis C in Europe'

Jens Reimer
University of Hamburg, Germany

Treatment guidelines are considered to be an important tool in steering patients to medical treatment. This study was conducted to analyze guidelines for the treatment of hepatitis C virus (HCV) infection in injection drug users (IDUs) in the European Union (EU) countries as a component of treatment access. National and international databases, expert contacts, professional societies, and health administrations were approached to acquire guidelines. According to their quality standard, guidelines were divided into expert opinions, semiofficial guidelines, official guidelines, and consensus processes. Recommendations for the treatment of HCV infection in IDUs vary substantially, from lack of recommendations and outright treatment disapproval to recommendations for treatment under specified circumstances. Recent guidelines that apply qualified process procedures that include literature research tend to be more permissive. Qualified guideline processes in each EU country and subsequently renewed pan-European guidelines are needed.
Contact Alt Email: reimer@uke.uni-hamburg.de

3.2 Prevention: Concepts and Effects

OS3.2/1
Need for a holistic approach to sex work and drug use across Europe
Licia Brussa, TAMPEP International Foundation, TAMPEP Network, Netherlands

TAMPEP (European Network for HIV/STI Prevention and Health Promotion among Migrant Sex Workers) was founded in 1993. It operates a community development and participation model that is rooted within the human rights framework, and seeks to lay a foundation for equitable access to support and services for sex workers. TAMPEP is an international networking and intervention project focused on assessing the situation of sex work in Europe and on developing appropriate responses to reduce sex workers vulnerability to HIV and sexually transmitted infections.
TAMPEP is a network of sex work projects that covers 25 countries in Europe. The regular mapping of sex work in Europe has enabled the monitoring and reporting of the changing trends within the sex industry and the living and working conditions of sex workers. TAMPEP's experience and knowledge has been utilised to elaborate and promote a holistic vision of principles and practices for HIV prevention among sex workers.

The 2008 TAMPEP European prostitution mapping results have shown that the context of sex work has changed considerably. Europe has witnessed a rapid transformation in the sex industry and it continues to evolve with every change in legislation, public policy and law enforcement. We have witnessed an increasing diversity of sex work settings and geographic spread of sex work; a stratification of sex workers, with national sex workers forming the majority in Central and Eastern European countries and migrant sex workers forming a majority in North, South and Western European countries; significant levels of drug use and dependency, particularly among outdoor based sex workers; and local and foreign criminal elements seeking to control of sex work. These and other factors all contribute to varying degrees of vulnerability to HIV/AIDS among sex workers. The overlap between drug use and sex work is significant increase across Europe.

Drug dependent sex workers vulnerability is exacerbated by the double stigma and potential criminalisation as both a drug user and a sex worker; drug using sex workers who inject face an additional risk of HIV infection if they use non-sterile injecting equipment.
The stigma and discrimination they face is exceptionally intense and keeps them from accessing key health and education services

The disproportionate levels of violence experienced by both indoor and outdoor based sex workers and the failure of the law to protect sex workers from violence has been identified across Europe as a major factor in increasing sex workers vulnerability, particularly those who have no legal status or are directly criminalised

Taking into account the above mentioned facts and the new reality of prostitution, we need urgently the developing holistic strategies on interventions covering different areas: HIV/STI prevention, health promotion, harm reduction., legal and social framework and human rights protection. A broad spectrum of community based initiatives, directed at empowerment of drug using sex workers and in reducing vulnerabilities to HIV/AIDS, can have a major impact on primary prevention inasmuch as it allows sex workers more scope in their contractual position with clients, brothel owners and pimps.
Email:tampep@xs4all.nl
Contact Phone: +31 20 6926912

OS3.2/2
Responding to recent rises in new HIV diagnoses among MSM in South Australia
Matthias Wentzlaff-Eggebert [1], Daniel Gallant [2]
SA (South Australia) Health [1 2], Australia

Background
In response to community mobilisation the Australian Government responded to the threat of an HIV epidemic in the late 1980s by facilitating a partnership of communities and their organisations, clinicians, researchers and government representatives from both sides of the political divide. The safe sex culture already emerging in communities of gay men was supported and promoted through health promotion campaigns and the first non-government AIDS service organisations were established with funding from governments. Dedicated clinicians, sex workers and people who inject drugs concerned with the spread of HIV through unsterile injecting practices, through advocacy and civil activism brought about the policy and law changes necessary for the introduction of a harm minimisation approach to reduce HIV transmission, including clean needle programs. Sex workers promoted a culture of safe working conditions and universal condom use.

These strategies prevented a more generalised epidemic in Australia. HIV infections among people who inject drugs are rare, and heterosexual transmission of HIV is mostly related to migration from or travel to high-prevalence countries. New HIV diagnoses, high among men who have sex with men (MSM) in the late 1980s, declined steeply from the early 1990s.

Between 1999 and 2007 however, new HIV diagnoses have increased in Australia by almost 50%, mostly among MSM. When the increase was first observed, public commentary frequently use of the word 'complacency' in relation to gay men's safe sex behaviour. More recently, differences in the epidemic among Australian States and Territories prompted a more sophisticated analysis. While rates remain stable over the long term in New South Wales, the state with the largest MSM population and HIV epidemic, rates are increasing in two neighbouring states, Victoria and Queensland. South Australia, on a smaller scale, experiences a similar upward trend.

Methods
This presentation summarises the deductive model used in South Australia, a small region with limited resources for local HIV research and prevention, to respond to rises in HIV.

Results
A comparative analysis of the behavioural disease surveillance data available in Australia generated hypotheses later tested using mathematical modelling. This modelling concludes that increases in unprotected anal intercourse with casual partners (UAIC) alone cannot explain the rises, and that concurrent increases in Sexually Transmitted Infections (STI) had to be taken into account. Further detail provided by qualitative social research identified multiple factors such as drug and alcohol use, adventurous sexual subcultures and sero-sorting. This body of evidence replaced the simplistic 'complacency' theory with a more complex but informative explanation including the contention that a large proportion of new infections are transmitted by people in the early stages of infection and still unaware of their HIV positive status. This evidence prompted the development of a cross-sectoral partnership, bringing together primary care clinicians and community-based organisations as well as public health authorities and resulted in coordinated, multi-level prevention interventions. While not enough time has passed, the upward trend in new HIV diagnoses has not continued in South Australia in 2008.

Conclusion
In the absence of high-level scientific evidence for broad-based additional prevention interventions in a low-level concentrated epidemic with already high levels of testing, treatment and condom use, this deductive and collaborative approach is a workable response to changes in the epidemic. By mobilising and reorienting existing prevention efforts it can be implemented even without increased resources.

OS3.2/3
Drug-related harm reduction programme for migrants (AIDS & Mobility Europe)
Matthias Wienold [1], Victoria Sheard [2], Ramazan Salman [3]
Ethno-Medical Centre [1 3], Germany, The Terrence Higgins Trust [2], United Kingdom

Transcultural Mediators and HIV/AIDS: The AIDS & Mobility Europe Project 2008-2011

Background
In 1992, after a WHO study on Migrants, Travellers and HIV, the European Commission decided to support a project to investigate HIV and migration in four countries, and AIDS & Mobility was born. For over 15 years, A&M was coordinated by the Netherlands Institute for Health Promotion and Disease Prevention (NIGZ). In the early years of the project, NIGZ led A&M in building partnerships across Europe to work together on HIV and migration. The project built a strong network of professional organisations, developed a database of research material and hosted meetings that for the first time brought together experts on HIV and migration with migrants themselves.

In 1999, the National Focal Point network of 15 European member states was established and in 2004, the project expanded to include ten new European member states. At the beginning of 2007, NIGZ retired as project coordinators, and a decision was taken to restructure the A&M project.
AIDS & Mobility 2008-2011 (co-funded by EAHC)
The A&M project will develop a new model of health education ("Transcultural AIDS Mediator Training") for different migrant communities in various European countries. The final aim is to improve migrants' health literacy and knowledge of HIV, by involving migrants themselves in undertaking research and delivering health training.

As well as testing out the mediator training model, the project will build networks of those involved in work on migrant health in Europe. All partners will be able to share knowledge about HIV and migration, building up research and evidence through the project which will eventually lead to recommendations for European policy-makers and a European Policy Summit at the end of the project.

The project newsletter and website www.aidsmobility.org will publish results from the training programme and ongoing research. The aim is to build a knowledge base on HIV education for migrants, contributed to by work from within and outside the project and accessible to all. Partners hope that by working together with migrant communities, they will be able to build capacity for HIV prevention in Europe and make the health education programme sustainable past the project's scheduled end in 2011.
The project is co-funded by the Executive Agency for Health and Consumers (EAHC) at the European Commission, and will involve six main European partner NGOs working alongside EMZ as coordinators.

Perspectives
Health education needs to strongly reflect sociocultural issues and is most effective when addressing these determinants appropriately. Engaging AIDS NGOs, migrants' NGOs and public services could serve as a platform for concerted action in training and campaign management in more countries. The main outcomes of AIDS & Mobility will be shared by a growing list of partners interested in this approach.

Associated Partners
EMZ (Management, Capacity Building and Training)
THT (Dissemination, Policy and Training)
European AIDS Treatment Group, Brussels (Networking)
National Institute for Health, Migration and Poverty, Rome (Evaluation and Training)
AIDS-FONDET, Copenhagen (Training)
AIDSi-Tugikeskus, Tallin (Training)
Yeniden, Istanbul (Training)

Collaborating Partners
Aids Hilfe Wien, Austria
Ashoka Deutschland gGmbH, Germany
Correlation Network, Netherlands
Deutsche Aids-Hilfe e.V., Germany
DIA+LOGS, Latvia
GAT, Grupo Portugues de Activistas sobre

Tratamentos de VIH/SIDA, Portugal
HIV-Sweden, Sweden
International Organisation for Migration, Belgium
Institute for Public Health of the Republic of Slovenia, Slovenia
Istituto Superiore di Sanita, Italy
National School of Public Health, Greece
NAZ Project London, UK
Plus and Minus Foundation, Bulgaria
PREZES FUNDACJI / Patients Safety Foundation, Poland
Secretaria del Plan National sobre el SIDA, Spain
Sex Education Foundation, Hungary
UNAPRO, Spain
Contact Alt Email: info@aidsmobility.org
Contact Phone: +49-511-1684-1020

OS3.2/4

A Database on Public health Projects in North Eastern Europe and its neighbouring countries

Marek Maciejowski
Nothern Dimension Partnership in Publich Health and Social Well-being, Sweden

Brief information about the NDPHS Database Project
Marek Maciejowski, Head of the NDPHS Secretariat

Full project name
"A Database on Public Health Projects in North Eastern Europe and its neighbouring countries."

Project sponsors
The European Commission (Executive Agency for Health and Consumers) and ten of the NDPHS Partners. Funding was also provided by the NDPHS Secretariat from its budget.

Overall aim and specific aims of the project
The overall aim of the project was to contribute to the regional efforts aimed at reducing the serious health and social problems in the Northern Dimension area, which risk having a negative impact on health development in the EU in general. The strategic objective of this project was to achieve a coordinated policy and project approach in actions against HIV/AIDS and lifestyle-related diseases and for healthy and socially rewarding lifestyles. The specific aims to be achieved were: (i) network creation and new project proposals for the purpose of more coordinated project and policy efforts in this area; (ii) developing innovative database and project pipeline embedded in a web-site specially developed for hosting them; (iii) collecting information on projects and processes on HIV/AIDS, lifestyle related diseases, prison health, etc. with existing relevant data, policies, research, best practice, etc. (also from other existing databases); (iv) developing a series of thematic reports featuring integrated analyses in specific health and geographical areas as well as proposing policy recommendations and project-based actions to be carried out; (v) creating efficient organizational and expert networks in these areas; (vi) producing and disseminating information resulting from the project.

Project structure
In order to achieve the above aims, the project was structured in the following seven work packages designed to address each of these goals in a coordinated and integrated manner:

WP 1 – Coordination of the project;
WP 2 – Dissemination of the results;
WP 3 – Evaluation of the project;
WP 4 – Database Development;
WP 5 – Information Provision on Specific Health Areas;
WP 6 – Thematic Reports and Network Creation;
WP 7 – Project Pipeline.

Project timeline
The project commenced on 1 February 2007 and ended on 31 January 2009.

Main project outcomes
1. A new website

Available at www.ndphs.org, the NDPHS website features many interesting sections and useful tools embedded in its mechanism and is available in three languages (English, Polish and Russian). Two distinctly unique tools have been integrated with this website, namely the NDPHS Database and the NDPHS Project Pipeline.

The NDPHS HIV/AIDS Expert Group has its own section on the website, which offers detailed information about the group's role and objectives, composition, activities, meetings, etc.

2. Database
Available at www.ndphs.org/?database, the NDPHS Database provides the most comprehensive collection of health- and social wellbeing-related projects conducted in our region (data come from nine external databases and a manual input). It also holds information about a pool of experts and organisations that have been actively involved in the improvement of health and the promotion of healthy life-styles in the Northern Dimension area. On top of this comes the fourth, publications section offering research papers, policy documents, evaluation reports, newsletters, etc. Currently, the database holds almost 1400 records, but their number grows continuously. Another unique feature of the database is that, apart from being able to view the data, everyone can also include one's own information (subject to quality check before it is displayed).

HIV/AIDS is one of the thematic areas covered by the Database. The following is the number of records concerning this topic: 200 projects, 64 experts, 76 organizations and 15 publications (all numbers as if 24 March 2009). The Database also contains many records which are of direct relevance to the topic of this conference such as drugs and TB and other communicable diseases, and several more.

3. Project Pipeline
Available at www.ndphs.org/?pipeline, the NDPHS Project Pipeline is a project funding coordination tool, which helps proceeding from a project idea through project application to project financing. During 2008, it facilitated project applications for funding for health-related projects in Russia and Belarus. The total funding announced by Finnish, Norwegian and Swedish financing agencies, amounted to approx. EUR 4.5 million. Judging from the pipeline charts (available at http://www.ndphs.org/?pipeline,charts) one can conclude that projects focusing on HIV/AIDS topic have attracted a rather modest amount of funding as compared to thematic areas such as "Alcohol, drugs and tobacco" and "Life-style related diseases" and "Public health economics."

In 2009, there has so far been announced through the Project Pipeline one call for project proposals. It was made by the Norwegian Ministry of Health and Care Services, which announced approx. EUR 350,000 for projects to be implemented in Russia.

As an additional feature, the pipeline assists project developers in identifying potentially interested financing agencies outside the NDPHS Project Pipeline by providing links to the websites of several such financing agencies.

4. Thematic reports
In order to establish a solid knowledge-base for Partnership's future activities, the NDPHS Expert Groups produced four thematic reports in 2008. These reports evaluate the developments and trends in the region for each selected thematic and geographical area and identify challenges and gaps that require increased attention and action. In an attempt to help address these challenges and gaps, the four reports also present a variety of recommendations concerning policy- and project-based interventions. These reports provide foundation for further activities of the expert groups, in areas such as the development of regional strategies, providing policy advice, organization of seminars and workshops and the development of regional projects.

The NDPHS HIV/AIDS Expert Group produced a thematic report entitled "HIV and AIDS in the Baltic Sea Region and Northwest Russia." This report is available in the NDPHS Database at http://www.ndphs.org/?database.view.paper.20. It includes description of the recent epidemiological development of HIV and AIDS in some Northern Dimension countries, focusing on the Baltic Sea Region and North-west Russia. Recommendations in the field of surveillance, policy development, legislation, prevention, treatment, care and support are given. Concrete project themes are recommended. The report includes two annexes:
(i) Mother-to-child transmission of HIV and (ii) Migration and HIV/AIDS in the Baltic Sea Region and North-west Russia.

5. Folder with fact sheets and other information material
To help publicize the Database Project achievements and disseminate the findings of the thematic reports, in year 2008 a folder with eleven fact sheets was produced in the two languages (English and Russian) and, subsequently, widely disseminated. The folder and fact sheets have also been translated into several other languages (Latvian, Lithuanian and Polish). All language versions are available on the NDPHS website in the Info Corner.

Furthermore, several e-newsletters, e-news and press-releases have been disseminated to help achieve the project objectives.

The NDPHS HIV/AIDS Expert Group produced two fact sheets, both of which are available at http://www.ndphs.org/?folder_and_factsheets:

- Fact sheet 4/2008: "About the NDPHS Expert Group on HIV/AIDS" – it briefly presents the mission, action areas, activities and main contact persons of the Expert Group;
- Fact sheet 5/2008: "Facing the challenges of HIV/AIDS in our region" – it presents selected highlights from thematic report "HIV and AIDS in the Baltic Sea Region and Northwest Russia."

Concluding remarks
The NDPHS Database project has been successfully implemented and all its objectives have been achieved. It would not be possible without the generous support provided by the previously mentioned donors, which is highly appreciated. Finally, it should be re-emphasized that many of the project outcomes are of direct relevance to the topic of this conference. The participants of the conference are, therefore, kindly invited to visit the NDPHS website (www.ndphs.org) and benefit from them.
Contact Phone: +46 8 4401938

OS3.2/5
Long-term Outcomes of Large-Scale Syringe Exchange/Combined HIV Prevention Programs for IDUs in New York City, 1990 - 2008

Don Des Jarlais [1], Kamyar Arasteh [2], Courtney McKnight [3], Holly Hagan [4], David Perlman [5], Lucia Torian [6], Samuel Friedman [7]
Beth Israel Medical Center [1 2 3 5], United States, National Development and Research Institutes, Inc. [4], United States, New York City Department of Health and Mental Hygiene [6], National Development and Research Institutes, Inc. [7]

Objective: To assess the potential for "comprehensive" HIV intervention programming to eliminate HIV infection in a large high seroprevalence epidemic among injecting drug users (IDUs). Large-scale implementation of syringe exchange in New York City in the mid-1990s created a relatively comprehensive set of prevention programs for IDUs and permits examination of the long-term effectiveness of relatively comprehensive programming.

Methods: Subjects were recruited from IDUs entering the Beth Israel drug detoxification program in New York City. Subjects were recruited in an unbiased manner, informed consent was obtained, a structured questionnaire was administered and a blood sample was collected for HIV antibody testing. Subjects recruited in 1990-94, prior to large-scale implementation of syringe exchange (pre-LSEP) were compared to subjects who began injecting in 1995 or later and were interviewed in 1995-2008 (post LSEP). Pre-LSEP IDUs would have spent their entire injecting careers in an environment with access to drug abuse treatment, voluntary HIV counseling and testing, and to community outreach programs, but with no legal access to sterile injection equipment for injecting illicit drugs, while post-LSEP IDUs would have spent their entire injection careers in an environment with relatively good legal access to sterile injection equipment as well as the pre-LSEP interventions.

Findings: Among 1216 pre-LSEP subjects, overall HIV prevalence was 49%, and HIV prevalence increased by 5% per year of injecting drugs. 21% of pre-LSEP IDUs were engaging in injection behaviors associated with transmission of HIV through needle/syringe sharing, i.e. they were both HIV seropositive and reported passing on their used needles/syringes to others. In contrast, among 1153 post-LSEP subjects, overall HIV prevalence was 6%, HIV prevalence increased by 0.4% per year of injecting, and 1% were engaged in injection behaviors that risked transmission through sharing needles/syringes.

Interpretation: Large-scale implementation of syringe exchange created a relatively comprehensive set of combined HIV prevention programs that was followed by control over but not elimination of HIV among IDUs.
Contact Phone: 0012122562548

OS3.2/6
Scaling up VCT: The Swiss Experience
Steven Derendinger [1], Roger Staub [2]
Federal Office of Public Health [1 2], Switzerland

Switzerland knows a concentrated HIV epidemic. The people mainly concerned are gay men and other men who have sex with men, migrants from Sub-Saharan Africa and injecting drug users. The prevalence in the general population stands at less than 0.1%. More than 300'000 HIV tests are carried out every year, which implies that 5% of the Swiss population takes a test each year, and about 50% of the population has taken an HIV test once in their lives.

Unfortunately, it is often not the people concerned who mostly apply for HIV testing. These tests are generally done by practitioners, who miss, most of the time, to give any proper pre- and post-test counselling. Therefore, the Federal Office of Public Health (FOPH) wants to scale up VCT.

Why scale up VCT?

The FOPH does not want more testing but better counselling and testing. Testing itself has no impact on changing behaviour yet counselling does. In addition, promotion of testing must only be targeted, in a concentrated epidemic, to the vulnerable and high prevalence groups. VCT among people with low risk and low prevalence is a waste of time and money.

How to scale up VCT?

The promotion of VCT can be done in two ways.

1. People at risk can be motivated to seek VCT.
2. General practitioners (GPs) are educated to induce counselling and testing to their patients at risk (PICT).

In order for people to know if an HIV test makes sense or not, the FOPH has developed on the Internet a risk assessment tool called "www.check-your-lovelife.ch". After answering 10 questions, the user receives his or her risk evaluation, and a list of VCT centres in his or her area if counselling and testing is needed. Different VCT centres have been created to receive specific populations such as the Checkpoint centres in Geneva and Zurich for gay men. Furthermore, another tool has been created by the FOPH to assure quality counselling and testing within the VCT centres.

This tool is called BerDa. Likewise check-your-lovelife.ch, a questionnaire has to be answered by the client. On the basis of his or her answers, BerDa administers the correct use of rapid test, and the confirmation procedure in case of reactive rapid test. BerDa enables also the collection of anonymous data, which are delivered to the FOPH. Finally, PICT is promoted by educating GPs in Switzerland to recognized signs, such as STI, TB, hepatitis, and especially mononucleosis, that could imply an HIV infection, and to offer in these cases VCT to their patients. There is no reason for GPs not to talk with their patients about his or her possible risky behaviour and his or her willingness to consent to an HIV test after adequate counselling.

Contact Alt Email: steven.red@sunrise.ch
Contact Phone: 0041763885045

OS3.2/7
CONNECTIONS Integrated responses to drugs and infections across European criminal justice systems
Cinzia Brentari
University of Kent, United Kingdom

Drug use and related infections such as HIV/AIDS and hepatitis continue to present significant challenges for prisons, public health authorities, law enforcement and national governments. Available studies show that, compared with the general population, drug users are overrepresented in arrest figures and in prisons, that prisons provide for a risky environment for drug use and that outbreaks of infections have happened in prison. The criminal justice system has therefore an important part to play in reducing problematic drug use and associated public health problems.

Consequently the 'Connections' project "Integrated responses to drugs and infections across European criminal justice systems", launched in Autumn 2007,by the University of Kent together with 5 European partners, supported and co-financed by the European Commission Public Health Programme, aims at facilitating the introduction and promotion – at national and European level – of an integrated approaches to drug and infectious disease prevention in prisons and within the justice systems as a whole. (see: www.connectionsproject.eu)

Topic:
The presentation will provide an overview of data with reference to drugs and infections within the criminal justice system in Europe and will then present evidence from research at European and international level on the effectiveness of introducing drug treatment and harm reduction measures within the criminal justice system, in order to prevent blood borne infections among people arrested and imprisoned and therefore the general population.

A joint combination of further research and data collection, but in particular a strive towards continuous advocacy based on evidence is needed to make sure that care and custody can cohabit in difficult environments such as the locations of custody and that harm reduction measures are fully accepted within prison environments as in the general community.

European and international guidelines as well as public heath evidence and an obligation for the respect of the human rights of those in custody demand further investments on the side of governments, criminal justice agencies and health and social bodies, in cooperation with the civil society, to make sure we meet the challenge of providing effective prevention and care for drug related problems and infections in all our communities, including prisons.
Contact Alt Email: cinziabrentari@hotmail.com
Contact Phone: +32 495495142

OS3.2/8
HIV-prevention strategies in countries with a concentrated HIV-epidemic need to reach a new goal
Robert Staub [1], Steven Derendinger [2], Stefan Enggist [3], L. Guggenbuehl [4], P. Vernazza [5]
Swiss Federal Office of Public Health [1 2 3 4], Switzerland, Swiss National AIDS Commission [5], Switzerland

Issues: Switzerland has been successful in preventing the spread of HIV into the general population as most industrialized western countries. Since 1987, the well-known STOP AIDS-campaign has informed the population how to protect itself from HIV. The number of HIV-diagnoses among Swiss heterosexuals continues to decrease. Swiss has three concentrated HIV-epidemics concerning MSM, IDU and migrants from sub-Saharan Africa. These epidemics seem to be under control - except for gay men. The two goals of HIV-prevention strategy, which are to prevent generalization of HIV and to control concentrated epidemics, are therefore reached, except for MSM. Nevertheless a new and third goal should be added to HIV-prevention strategy: to prevent HIV-transmission within stable serodiscordant relationships.

Description: The number of newly reported HIV-diagnoses has remained stable at about 750 cases per year (about 100 cases/million inhabitants) since 2002. In 2006 a survey embedded within the Swiss mandatory but anonymous reporting system showed that around 50% of newly diagnosed individuals believed that their stable partner was the origin of their HIV-infection (24% among gay men, 30% of heterosexual men and 61% of heterosexual women).

Lessons learned: HIV-prevention strategy has to be expanded to a third goal which focusses on serodifferent couples. Resources must be allocated to reach that goal. First target group for intervention is all medical staff who diagnose HIV. Patients should be motivated to come with his or her stable partner for immediate counseling. The second target group counts newly diagnosed persons. They should be offered counseling and training - preferably with their stable partner - to prevent HIV-transmission within their couple.

Next steps: The Swiss HIV-prevention strategy has newly been extended towards this third goal. Currently, pilot interventions for the two target groups are designed and planned and will be tested in the next months.
Contact Alt Email: stefan.Enggist@bag.admin.ch
Contact Phone: 3705 2300125

3.3 Care and Support
OS3.3/1
No health without mental health. Applying this dictum to HIV/AIDS in Africa and Eastern Europe
Melvyn Freeman, Global Initiative on Psychiatry, South Africa

HIV/AIDS is directly linked to mental health in a number of ways. Poor mental health (including both severe and common mental disorders) is an important risk factor for contracting HIV- whether it be through poor judgement, multiple sex partners, lack of esteem and respect for self or others or through co-morbidity with substance abuse. Once a person becomes positive their mental health status is often worsened by fear, stigma, difficulties around relationship decisions and having children, illness, side effects of medication and so on. Their mental health status in turn impacts on the course of the illness and effects morbidity and mortality. Importantly people with poor mental disorder tend to be poor adherers to anti-retroviral medication. It also appears that the risk behaviours of PLHIV is linked to their mental health status. In South Africa, where we have around 5.7 million people infected with HIV. In this situation there are so many priorities and demands for resources that mental health receives little priority. We are trying to change this. In Eastern Europe though where the co-morbidity between mental disorder and substance abuse and hence also between HIV and mental disorder is very high, there are now important opportunities to assist people with mental health problems and thereby address both the impacts and an important epidemiological driver of HIV.
Email:mfreeman@telkomsa.net

OS3.3/2
Nurses' and nursing students' knowledge and attitudes to PLHIV – comparison between Finland, Estonia and Lithuania
Tarja Suominen [1], Maritta [2]
University of Tampere [1], Finland, University of Turku [2], Finland

Background: Studies on nurses' knowledge of HIV/AIDS reveals wide variation from country to country. The mean scores in different HIV/AIDS knowledge scales have ranged from 55% to 75% of the correct answers. In some studies, age has been significantly related to knowledge, younger being more knowledgeable than older. The attitude scales used have varied considerably much across in studies, the mean of the different attitude scales ranging between 51% - 78% of full (most positive attitudes) scores. The evidence on the relationship between attitudes and knowledge is conflicting.

Methods: This study aimed to describe and compare nurses' and nursing students' knowledge of HIV/AIDS and attitudes towards PLHIV in three countries; Finland, Estonia and Lithuania). Additionally, the factors associated with these issues were investigated.

A modified version of the State University of New York at Buffalo School of Nursing AIDS Study Questionnaire was used. The instrument has two scales comprising: (i) knowledge related to HIV/AIDS (33 items) and (ii) attitudes towards PLHIV and towards the disease itself (35 items). The attitude scale has two subscales; a general attitudes scale (26 items) and a homophobia scale (9 items).

Nurses working on medical, surgical and women's diseases wards participated in this study . The response rate was 75 % (n=322) in Finland, 86 % (n=191) in Estonia and 91 % (n=168) in Lithuania. For the last year nursing students the response rate in Finland was 79 % (n=169), in Estonia 90 % (n=132) and in Lithuania 81% (n= 170). All together there were 1152 participants.

Results: The mean of correct answers for the 33 item on the knowledge scale across the whole data was 22.5 (SD=4.22, min 10 – max 32) for nurses. The nursing students showed quite average level of knowledge on HIV/AIDS. The mean of correct answers for the knowledge test was 21.74 (min 9, max 31, MD 22.00, SD 3.83).

The mean score on the general attitude scale (min 1 – max 5; when score 5 indicates the most positive attitude) across the whole data was 3.34 (SD=0.98) for nurses and for nursing students 3.3 (SD 0.8, min 1.2 – max 5.0). There were significant country differences.

The factors influencing nurses' level of knowledge showed quite clearly that previous experience in providing care for a HIV/AIDS patient or knowing someone with the infection had a positive influence on the level of knowledge. Nurses' length of education had a significant positive correlation with the level of knowledge across the whole data and years of working experience was negatively related to the knowledge level.

Conclusion: Differences between countries may indicate the differences in the role and responsibilities of nurses in different countries. The results underline the importance of providing a standardized education in the different European countries. The content of the education should also be tailored to take into account national and personal differences. This is important because health disparities exist and health care systems vary in different European countries.
Contact Alt Email: tarja.suominen@elisanet.fi
Contact Phone: +3585652205

OS3.3/3
Eurosupport: A European Initiative to improve the Sexual and Reproductive Health of People Living with HIV
Christiana Nöstlinger [1], Tom Platteau [2], Sibylle Nideroest [3], Ruth Borms [4]
Institute of Tropical Medicine [1 2], Belgium, University of Applied Sciences Northwestern [3], Switzerland, Sensoa [4], Belgium

Background: Eurosupport (ES) has been set up to evaluate the psychosocial needs of people living with HIV/AIDS (PLHA) in a European perspective; to this end, a network of HIV treatment centres, research organisations, and community-based organisations has been created.

ES 5 focused on sexual and reproductive health (SRH) related needs of PLHA. ES 6 will focus on developing tools for service providers to support PLHA in several aspects of SRH, with an emphasis on positive prevention for two target groups, men having sex with men (MSM) and migrants.

Methods: ES 5 adopted a multi-method approach: qualitative formative research with focus groups to investigate relevant SRH problems and needs, quantitative research using a self-reported, anonymous questionnaire for PLHA to assess factors influencing sexual risk behaviour, and an online survey for health care providers to assess relevant gaps in service provision.

Results: The network comprised 17 partners in 14 European countries. Qualitative research showed that SRH-related topics are not sufficiently discussed in service provision. Quantitative research showed that AIDS behavioural theories, such as the information-motivation-behavioural skills model need to take the specific needs of HIV + people into consideration when designing interventions. Health care providers expressed their needs for evidence-based tools to provide SRH services.

Conclusion/lessons learned: A better integration of SRH and HIV care would be beneficial for the quality of services provided. Based on the evidence accumulated in the previous project, ES 6 (started in 2009) will develop a training package for service providers to support PLHA in their SRH with a focus on sexual risk reduction. Intervention mapping will be used to develop target-group specific counselling strategies (including computer-assisted tools for self-regulation of prevention behaviour) and other resource materials to be used for MSM and migrants. The tools will be evaluated in different HIV care settings. The ES network will be maintained and further expanded.
Contact Alt Email: cnoestlinger@itg.be
Contact Phone: +32 3 2476472

3.4 Societal Reactions on HIV/AIDS and Public Health Policies

OS3.4/1
From heroic to humble drug policy: Adoption of harm reduction practices in Finland
Tuukka Tammi, A-Clilnic Foundation, Finland

The presentation deals with the changes that have taken place towards the adoption of harm reduction policies in Finland and in other Western drug policies. By focusing on different factors that explain drug-policy change, it is argued that drug policies change – if they change – in cycles and are affected by specific diffusion mechanisms. The prevailing, established policy practice is bureaucratised, non-reflective and assumed, as long as a crisis and related societal, political and professional mobilisations emerge. A policy crisis can take different forms, but what is relevant is that the stakeholders in the field have a sense of crisis and feel external pressures to resolve it, and then these senses and pressures become articulated in claims, demands and responses.

In the change cycle there are different phases. At the beginning, some actors may deny the very existence of the crisis, but then as others build new evidence for it, new definitions about the threats as well as about the system's (or the policy's) ability to respond are continuously produced. New actors with new demands might have tried to enter the policy field previously, but without a crisis situation this may have been difficult, and their demands may have remained marginal. When the crisis emerges, however, political opportunities open for new ideas and their proponents. On the basis of new initiatives – if the crisis has not yet dissipated – new strategies and action plans are then drafted, and more and new resources are allocated to them. Simultaneously, the new problem construction and related responses are affirmed through research and other evidence-building. In the presentation, this crisis-driven change-cycle model is discussed and further developed especially with regard to the recent changes in the Finnish drug policy, but also in relation to developments in other European countries, such as France, Sweden, Switzerland and UK.
Contact Phone: +358504330309

OS3.4/2
Prison health issues. UNAIDS, UNODC and WHO guidelines on Prison health
Heino Stover [1], Rick Lines [2], Katja Thane [3]
University of Applied Sciences [1], Germany, IHRA [2], United Kingdom, University of Bremen/Germany [3], Germany

Background
In February 2004, government officials from over fifty Council of Europe countries met in Ireland to sign the Dublin Declaration on Partnership to fight HIV/AIDS in Europe and Central Asia. These officials met 'Against the background of the global emergency of the HIV/AIDS epidemic with 40 million people worldwide living with HIV/AIDS, 90 per cent in developing countries and 75 per cent in Sub-Saharan' (Dublin Declaration on HIV/AIDS in Prisons in Europe and Central Asia, 2004). The Declaration commits the signatory States to take 33 specific actions – and in some cases meet specific targets – to address the HIV prevention, care, treatment and support situation across the region.

While the Declaration contains no actions explicitly directed at prisons, this does not mean that there are no commitments in the document directed towards incarcerated populations. Just the opposite in fact is true. The Preamble of the Declaration lists prisoners among those 'persons at the highest risk of and most vulnerable to HIV/AIDS infection'. Through its inclusion of people in prison as a 'vulnerable population' within the terms of document, the Declaration – likely inadvertently from the perspective of most governments – commits the signatory States to specific and time-bound deliverables on HIV prevention and care for prison populations.As has been noted, 'Ironically, despite the lack of specific attention paid to prisons in the Declaration, state success or failure at providing comprehensive HIV/AIDS services is not only a central commitment made by governments in Dublin, but represents perhaps the only quantitatively measurable commitment contained in the Declaration as a whole.' (Matic et al., 2008). The two relevant aspects of the Declaration in this regard are Actions 9 and 21.

Action 9 commits signatory governments to achieving 80% coverage of 'prevention programmes providing access to information, services and prevention commodities' among 'the persons at the highest risk of and most vulnerable to HIV/AIDS'. Given the inclusion of prisoners in the definition of most vulnerable populations, the Declaration commits governments to achieving an 80% scale up of HIV prevention measures in prisons. The Declaration sets the year 2010 as the target for achieving this objective.

Action 21 commits states to 'provide universal access to effective, affordable and equitable prevention, treatment and care including safe anti-retroviral treatment to people living with HIV/AIDS in the countries in our region where access to such treatment is currently less than universal
The goal of providing effective anti-retroviral treatment must be conducted in a poverty-focused manner, equitable, and to those people who are at the highest risk of and most vulnerable to HIV/AIDS'. As with Action 9, prisoners are necessarily included among the target populations for universal access to HIV prevention, care and treatment as a result of their definition as a vulnerable population. The Declaration names the target for achieving this objective as 2005, four years ago.
Contact Alt Email: heino.stoever@uni-bremen.de
Contact Phone: +49 68 1533 2833

OS3.4/3
European Partners in Action on AIDS
Martine van der Meulen [1], Marija Subataite [2]
AIDS Action Europe [1], Netherlands, AIDS Action Europe [2], Lithuania

Background: In 2006 AIDS Action Europe started the project European Partners in Action on AIDS. The 3-year project (funded primarily by the European Commission, GlaxoSmithKline's Positive Action Programme and project partners) aims to strengthen knowledge, capacity and exchange among AIDS-related NGOs and CBOs in Europe and Central Asia. The EPAA project responds to their need to build capacity on important issues and to have access to a tool that would facilitate exchange of good practice approaches between them and their fellow NGOs.

Methods: The main project activities to reach the above goals consist of the development of a series of European best practice seminars and the creation of a European Clearinghouse on HIV/AIDS.

Results: In collaboration with different partners in various European countries AIDS Action Europe organised 7 seminars on topics that were prioritised by the members of the network. These topics include:
• Working with the Media, 2006
• Monitoring and Evaluation, 2006
• Gay men's health, 2007
• Legislation and Judicial systems in relation to HIV/AIDS, 2007
• HIV Voluntary Counselling and Testing, 2008
• Resource Mobilisation, 2008
• Public Policy Dialogue, 2008

Each seminar brought together around 40 NGO representatives from Eastern and Western Europe. They learned practical skills such as how to build a media campaign or a fundraising strategy, do's and don'ts for monitoring and evaluating of projects and received useful tips for engaging in (political) dialogue with policy makers. All seminars were preceded by baseline surveys and state of the art reports and resulted in European guideline publications on these topics. Some seminars had additional impacts. Take for instance the gay health seminar, which led to the creation of the Ljubljana Declaration, containing European civil society suggestions to improve the sexual health and well-being of men who have sex with men (MSM). Also worth highlighting is the impact of the seminar on legislation and judicial systems, which, amongst others, resulted in joint advocacy with the European Commission, European Parliament and Council of Ministers, calling for the planned equal treatment Directive to make clear the application of anti-discrimination legislation to all people living with HIV.
Whereas face-to-face linking and learning was facilitated by the seminars, the project also included the development of a tool for online linking and learning: the clearinghouse. The clearinghouse was first launched in March 2007 and is accessible via the AIDS Action Europe website and also at www.hivaidsclearinghouse.eu. It facilitates the exchange of good practice materials of all kinds in an interactive and user-friendly way, including toolkits, reports, posters and presentations. Topics and target groups covered by the clearinghouse range from advocacy to prevention and from injecting drug users to people living with HIV and AIDS. Building on the clearinghouse to the website of AIDS Action Europe led to a direct increase in website visits. Between 2006 and 2007 (the year of the launch of the clearinghouse) the increase in visits to the website was more than 600%. Moreover, ever since the clearinghouse was launched, it has been the number 1 visited page of www.aidsactioneurope.org.
At the end of 2008, the clearinghouse had 490 user accounts and 554 uploaded good practices, which were downloaded more than 27000 times. A usability test carried out in 2008 generated very positive responses about the content, accessibility and design of the clearinghouse. By means of a pop-up survey the relevance, clarity, completeness and usability of the information in the clearinghouse were also evaluated and translated into concrete recommendations for the future.

Conclusions: The EPAA project officially ended in December 2008. Nevertheless, the results that were achieved, made it clear that the activities of the EPAA project should continue. Regarding the clearinghouse, we have seen that this platform for online exchange of good practices responds well to the need of various target groups and has potential for further growth. AIDS Action Europe received new funding in the form of an operating grant from the European Commission to continue its activities related to the clearinghouse – and to make improvements to the clearinghouse in order to even better respond to all needs. Unfortunately this operating grant does not include a new series of seminars. However, other funders have shown interest in the organisation of some regional capacity building trainings in Russian language based on the EPAA seminars. We are currently exploring the possibilities.
Contact Alt Email: midi@centras.lt
Contact Phone: +370 5 2609007

OS3.4/4
HIV in the Baltic Sea Region
Pauli Leinikki
Northern Dimension Partnership in Health and Social Wellbeing, Finland

HIV epidemic has evolved very differently in the countries around the Baltic Sea. In the Nordic countries (Sweden, Finland, Denmark) main risk factor for the infection has been unprotected sex between men, also heterosexual transmissions related to tourism have been recorded. People who have immigrated from high-endemic countries and who have contracted their infection in their country of origin contribute a significant proportion of those living with the infection in the country, but they usually do not pose a significant public health risk since the risk factors are not influencing their behavior any more.
In the Baltic countries and NW Russia injecting drug use is the most significant risk factor and currently the infections are frequently transmitted to the partners through sexual exposure. The infections have spread in these countries as explosive local outbreaks aggravated by inadequate access to clean syringes and needles or substitution therapy to deal with the drug dependence. The incidence in these countries is still quite high and further measures are needed to change the course of the epidemic to resemble more the rather stabile situation that is prevalent now in the Nordic countries.
Contact Phone: + 35840 5524314

OS3.4/5
HIV-prevalence and risk behaviors among injecting drug users in Riga, Tallinn, and Vilnius
Kristi Rüütel1, Irma Čaplinskiene [2,3], Anda Karnite [4,5], Inga Brokere [4], Ave Talu [1], Katri Abel-Ollo [1], Andris Ferdats [4], Saulius Čaplinskas [2,3,] Anneli Uusküla [6]

1 National Institute for Health Development, Estonia
2 Lithuanian AIDS centre under Ministry of Health, Lithuania
3 Social policy faculty, M. Romeris University, Lithuania
4 Public Health Agency, Latvia
5 Department of Public Health and Epidemiology, Riga Stradins University, Latvia
6 Department of Public Health, University of Tartu, Estonia

Background
All three Baltic countries have experienced increase in injecting drug use in the 1990s and this has contributed to the increased spread of HIV. The burden of HIV infection is the highest in Estonia. In 2007, the number of new cases per one million population was 472 in Estonia, 154 in Latvia and 31 in Lithuania. HIV prevalence rate of 54% was described among 350 injecting drug users (IDU) in 2005 in Tallinn, Estonia. In Latvia in the same year the prevalence of HIV among 325 young IDUs was 22%. HIV prevalence among 320 IDUs recruited in Vilnius in 2006 was 10%.
The purpose of the study was to estimate the prevalence and risk behaviors related to HIV-infection among IDUs in the capital cities of three Baltic countries – Riga (Latvia), Tallinn (Estonia), and Vilnius (Lithuania).

Methods
A cross-sectional anonymous survey of current IDUs recruited using principles of respondent driven sampling was carried out in Riga, Tallinn, and Vilnius in 2007. IDUs were recruited from non-treatment settings (syringe exchange programs) for an interviewer-administered risk

behavior survey (covering demographics, drug use history, injecting practices, sexual behavior, contacts with health care and harm reduction services), and venous blood sample collection. All participants were tested for HIV antibodies (Vironostika HIV Uniform II Ag/Ab, BioMerieux).

Results

Sociodemographic data

Mean age of the participants in Tallinn (26.5 years) was somewhat lower than in Riga and Vilnius (29.9 and 30.5 years respectively). Proportion of men was significantly lower in Riga (70%, 95% CI 66–75%) compared to Vilnius (82%; 95% CI 79–86%) and Tallinn (84%; 95% CI 80–88%). The proportion of non-ethnic people was highest in Tallinn (85%) compared to Riga (61%) and Vilnius (57%). For 24% of the participants in Vilnius, 54% of the participants in Tallinn, and 73% of the participants in Riga regular or temporary job had been the main source of income. The proportion of those participants who had ever been in jail or prison was 71% in Vilnius, 58% in Tallinn and 45% in Riga.

Injecting drug use

Mean duration of injecting drug use was 9.7 years (SD 7.6) in Riga, 7.9 years (SD 4.4) in Tallinn, and 10.4 years (SD 5.0) in Vilnius. The main drugs injected by participants in Tallinn were synthetic opioids, specifically fentanyl or 3methyl-fentanyl which was used by 72% of participants. There were no fentanyl-injectors in Riga and Vilnius. In Riga, the main drug injected was heroin (45% of participants), which was closely followed by amphetamine (44% of participants). In Vilnius, the main drugs injected were poppies (58%) and heroin (32%). 44% of participants in Riga, 48% in Vilnius and 63% in Tallinn reported ever having an overdose of injection drugs.

Injection risk behaviour

31% of participants in Riga, 25% in Tallinn and 2% in Vilnius reported sharing syringes and/or needles in last four weeks. Out of those who had been in prison, 27% in Vilnius, 44% in Riga and 45% in Tallinn reported injecting drugs in prison. 2% of participants in Vilnius, 13% in Tallinn, and 18% in Riga reported sharing syringes and/or needles with sexual partners in last 6 months (out of all participants).

Sexual risk behaviour

48% of participants in Riga, 59% in Tallinn and 11% in Vilnius reported that they had always used a condom with casual sex partner(s) in last six months (among those who have had sexual intercourse with casual partner(s) in last six months). 5% of participants in Vilnius (n=19), 3% in Riga (n=13), and 2% in Tallinn (n=7) reported ever receiving money, drugs or any other commodities for sex.

Harm reduction services

The main source of new and sterile syringes and needles in last six months in Tallinn was syringe exchange program (for 42% of participants) and pharmacy in Riga (87%) and in Vilnius (61%). In Riga 43%, in Tallinn 82%, and in Vilnius 98% of participants reported using syringe exchange program in their lifetime.

HIV-testing and prevalence of HIV

The majority of participants in all three cities have been tested for HIV at least once in a lifetime (72% in Riga, 85% in Tallinn, and 95% in Vilnius). HIV prevalence among the participants was significantly higher in Tallinn (55%; 95% CI 50–60%) compared to Riga (22%; 95% CI 19–27%) and Vilnius (8%; 95% CI 5–11%). In Riga 57%, in Tallinn 65%, and in Vilnius 75% of those who were tested HIV positive during the study had reported that the result of their last HIV test had also been positive.

Conclusions

The prevalence of HIV among IDUs in these study samples was high. Sexual risk behaviour and sharing syringes and other injecting paraphernalia were common. Notwithstanding the relative stabilisation of HIV prevalence among IDUs in all three countries, there exist associated risks for future spread of HIV and other blood borne infections by sexual transmission to the sexual partners of IDUs and to the wider population.

Scientific Abstracts - Oral Presentations

www.aidsvilnius2009.com

ABSTRACT NUMBERS

The 5th European Conference on Clinical and Social Research on AIDS and Drugs abstract book includes all accepted abstracts for oral presentations and the poster exhibition.

The abstracts have been given reference numbers as follows:

PS1.1/.. **PE1.1/..** **LBPS1.1/..** **PR1.1/..**

PS1 = Parallel Session Number 1, PE = Poster Exhibition, LB = Late Breaker PR = Printed Only

1. Clinical Science

1.1. New ARV therapy strategies
- New Therapeutic Approaches and Treatment Strategies
- Paediatric Treatment Strategies
- Impact of opportunistic diseases on ARV treatment strategies
- Clinical Trials of New Drugs/Pro-Drugs

1.2. Important aspects of current ARV therapies
- Biological Markers for monitoring Disease Progression and Therapy
- Resistance surveillance and testing in clinical practice
- IDU ARV treatment failure and salvage therapy
- Adherence
- Survival after initiation of ART
- Managing the side effects and Drug Interactions

1.3 Co-infections
- HIV and tuberculosis
- Viral hepatitis
- HIV and STI interactions
- DOTS

1.4 Drug abuse treatment
- oral substitution treatment
- heroin assisted treatment
- treating stimulant injectors (amphetamines, crack)
- drug free approaches
- integration of risk reduction approaches into addiction treatment

2. Epidemiology and Surveillance

2.1. Dynamics of the HIV-Epidemic
- Determinants of Transmissibility, network analysis
- other determinants (IDU dynamics, MTCT (mother-to-child-transmission) dynamics, migration, STI and sexual behaviour, imprisonment)
- Substance use (alcohol, crack, IVDU) as risk factors for nfectious diseases

2.2. Molecular Epidemiology
2.3. HIV-Prevalence/Incidence measurement
2.4. Diagnostics & Monitoring Tools aimed at hard-to-reach populations
2.5. Expanded HIV screening

3. Social Science and Public Health

3.1 Drug Use, Sexuality and HIV-protection/risk behaviour
- determinants and contexts of protection/risk behaviour
- protection/risk behaviour in specific vulnerable groups (children, IDU, MSM, MSW, FSW, migrant populations, prisoners and ex-prisoners)
- gender

3.2 Prevention: Concepts and Effects
- risk reduction strategies vs. risk minimizing strategies
- harm reduction, conditions for effective harm reduction in substance users, patient satisfaction with harm reduction approaches
- prevention in hard to reach populations
- gender and age
- prevention in transforming societies/poor resource settings
- cross border/EU-wide
- early interventions
- increasing coverage for effective harm reduction in substance users

3.3 Care and Support
- support needs
- access to care
- gender, migration and age specific aspects
- Care and support in transforming societies
- Horizontal learning and intersectoral HIV case management
- HIV and mental health

3.4 Societal Reactions on HIV/AIDS and Public Health Policies
- PLWH and work; disability management
- Stigma and exclusion vs. participation and inclusion
- Legislation
- Policy
- Pricing and administration (affordability)

1.1 New ARV therapy strategies

PS1.1/1

Safety Analysis of Darunavir/r (DRV/r): Combined Data from Randomised Phase II and Phase III studies

Gerd Fätkenheuer[1], Bonaventura Clotet[2], Gilles Pialoux[3], Kiat Ruxrungtham[4], Manyu Prakash[5], Calvin Cohen[6], Jason Flamm[7] , Tony Vangeneugden[8], Eric Lefebvre[9] , Sabrina Spinosa-Guzman[10]

Department of Internal Medicine, Medical Hospital of the University of Cologne, Germany[1], Hospital Universitari Germans Trias i Pujol and irsiCaixa Foundation, UAB, Barcelona, Catalonia, Spain[2], Service des Maladies Infectieuses, APHP, Hôpital Tenon, Paris, France[3], HIVNAT, Thai Red Cross AIDS Research Centre and Department of Medicine, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand[4], Community Research Initiative of New England, Boston, MS, USA[6], Kaiser Permanente Medical Group, Sacramento, CA, USA, Tibotec BVBA, Mechelen, Belgium[5 8 10], Janssen-Cilag B.V., Tilburg, Netherlands[9]

DRV/r has been evaluated in a large-scale clinical program in a broad range of HIV-1-infected antiretroviral-naïve and experienced patients (pts). This analysis examines the safety profile of DRV/r in pts in these studies administered DRV/r 600/100mg bid or 800/100mg qd, as part of combination therapy.

All available safety data at 48 wks were analysed from 1376 pts recruited to the DRV/r 600/100mg bid and 800/100mg qd arms of Phase IIb POWER 1 + 2 trials and Phase III ARTEMIS, TITAN and DUET trials. In ARTEMIS, treatment-naïve pts received 800/100mg qd (n=343) or lopinavir/r (LPV/r) 800/200mg (total daily dose; n=346); all pts received tenofovir/emtricitabine. In TITAN, treatment-experienced, LPV-naïve pts received DRV/r 600/100mg bid (n=298) or LPV/r 400/100mg bid (n=297) + OBR. In POWER 1 + 2, highly treatment-experienced pts who only received DRV/r 600/100mg bid + OBR (n=131) were included. Only pts from the control arm of DUET 1 + 2 (n=604) receiving DRV/r 600/100mg + OBR and etravirine (ETR) placebo were analysed.

Most common adverse events (AEs) (regardless of causality or severity) were diarrhoea and nausea. Comparing across all trials, there was a lower incidence of overall AEs, serious AEs, discontinuations due to AEs and lipid AEs in naïve pts receiving DRV/r 800/100mg qd than in treatment-experienced pts using DRV/r 600/100mg bid. The lower incidence of grade 2–4 at least possibly treatment-related diarrhoea with DRV/r compared to LPV/r was seen in both ARTEMIS and TITAN (Table). No apparent differences were seen with gender, race or age.

1.2 Important aspects of current ARV therapies

PS1.2/1

Prevalence of Primary Genotypic Resistance in Georgia

Tengiz Tsertsvadze[1], Natia Dvali[2], Monica Parker[3], Nikoloz Chkhartishvili[4], Jack DeHovitz[5], Nino Gochitashvili[6], Marine Karchava[7], Akaki Abutidze[8], Lali Sharvadze[9]

Infectious Diseases, AIDS and Clinical Immunology Research Center Georgia[1 2 4 6 7 8 9] Wadsworth Center, NYSDOH United States[3], SUNY Downstate Medical Center United States, United States[5]

Background: The presence of drug-resistant mutations in antiretroviral therapy (ART) naive HIV-1 patients compromises benefits of ART. Transmission of drug-resistant HIV-1 strains limits the future therapy options and affects the efficacy of postexposure prophylaxis. Since 2004 Georgia ensured universal access to ART. The aim of this research was to study the impact of widespread availability of ART on the prevalence of primary genotypic resistance in Georgia.

Methods: Genotypic drug resistance testing using TruGene HIV-1 genotyping kit (Bayer Health-Care LLC, Tarrytown, NY) was performed on plasma specimens from 126 ART naive patients. Patients with newly diagnosed HIV-1 were recruited from 2006 to 2008. Pol gene sequences were examined for the presence of resistance-associated mutations. Stanford HIV Sequence Database (http://hivdb.stanford.edu/) was used for interpretation of resistance data. Mutations listed by the International AIDS Society-USA were considered.

Results: Of 126 treatment naive patients high-level resistance was found in three (2.38%) cases: two (1.59%) patients were resistant to NNRTIs – one had K103N and one – K101E. One (0.79%) patient was resistant to Lamivudine due to M184I. The most frequent substitution in the RT region was at positions 62 (32 cases – 25.39%). Other Resistant mutations of the reverse-transcriptase gene were found at codons 75, 108, 179, 181, 210, 215 and 219. Resistant mutation of the protease gene was found only at codon 46 (3 cases – 2.38%). The secondary protease inhibitor mutation - V77I – marking particular genetic lineage of the HIV-1 epidemic in the former Soviet Union was found in 45 (35.71%) samples.

Conclusions: The study showed a low level of primary resistance in Georgia. However, given the short history of universal coverage with ART there is considerable potential for the prevalence of drug resistant mutations to rise in parallel with the use of ART. Therefore, HIV drug resistance surveillance is warranted to prevent emergence and spread of resistant strains.

aids@gol.ge

Contact Phone: +995 32 399922

2.2 Molecular Epidemiology

PS2.2/1

High prevalence of polymorphism in HIV1 variants circulating in Latvia

Diana Dusacka[1], Ludmila Guseva[2], Tatjana Kolupajeva[3], Jolanta Vrublevska[4], Inga Januskevica[5], Aija Vilde[6], Jelena Storozenko[7], Baiba Rozentale[8]

Infectology Center of Latvia Latvia[1 2 3 4 5 6 7 8]

Background .Surveillance studies in Europe use often IAS (International AIDS Society) mutation list for the evaluation of RAMs (Resistance Associated Mutations) prevalence. For the regions with high prevalence of HIV1 subtype A it may lead to the overestimating of RAMs frequency.

The objective was to study the frequency of RAMs in HIV variants circulating in treated and treatment- naive HIV1 infected individuals in Latvia in the years 2006-2008.

Methods Data of HIV genotyping, performed in 2006-2008 by TRUGENE HIV-1 (Bayer Health Care-diagnostics) are included. Drug resistance testing was performed in 259 HIV-1 infected individuals: 133 treatment-naïve individuals

were tested before starting therapy (92 males), and 126 individuals with treatment failure (80 males). HIV transmission ways in treatment-naïve group were the following: intravenous drug use (75/133), through heterosexual (46/133) and homosexual / bisexual (11/133) contacts, vertical transmission (1/133); in treatment-experienced group: intravenous drug use (59/126), through heterosexual (30/126) and homosexual / bisexual (28/126) contacts, vertical transmission (7/126) and unknown (2/126). Estimation of RAMs prevalence was performed according to R.W. Shafer and all (2007). Subtyping was performed by using Rega 2.0. data base.

Results. Subtyping revealed that most common HIV-1 subtypes in our study were subtype A -80% and B – 17%. In the group of treatment-naive individuals majority (94.7%) carried wild type virus, in 7/133(5.3 %) sequences at least 1 RAM was found. Drug resistance was predicted by following RAMs: M184N (2 cases of resistance to Lamivudine), G190S, K103N, K103N in combination with G190S or P225H (4 cases of resistance to Nevirapine, Efavirenz); one cases multidrug resistance (Lamivudine and Nevirapine, Efavirenz) was predicted by M184N, 101E, and G190S combination. High frequency of A62V NRTI mutation (26%) was observed. This RAM is included in IAS list, however A62V may be supposed as a result of polymorphism in RT gene in HIV-1 subtype A. Unusually frequent occurred mutation V77I in PI gen – 33.8%. In the group of treatment-experienced patients RAMs prevalence was estimated as 41 % (52/126). Most frequently RAMs were found for NRTI (39/126; 31%) followed by NNRTI (23/126;18%), and PI (13/126;10 %). In the group of NRTI mutations M184V (36/126; 29%), T215Y (8/126;6%), K70R (5/126;4%), NNRTI mutations K103N (16/126;13%), G190S (6/126;5%),P225H (5/126;4%), PI group mutation L90M (6/126; 5%), M46I (7/126;5.5%), V82A (5/126;4%) occurred most frequently. High rate of HIV polymorphism was observed in treatment-experienced group as well: A62V was found in18 %, V77I in 28%.The following drug susceptibility was predicted according to the TRUGENE expert interpretation: in 74/126 (59%) patients no evidence of resistance, in 28/126(22%) resistance to 1 drug class (NRTI-18/126; NNRTI-8/126; PI-2/126), in 20/126 patients resistance to 2 drug classes (NRTI+NNRTI-11/126, NRTI +PI 8/126, NNRTI+PI 1/126) and in 4/126 patients resistance to all 3 classes of drugs (NRTI+NNRTI+PI)

Conclusion. Frequency of RAMs in treatment-naive HIV1 infected person in Latvia was estimated as 5.3 %, in treatment-experienced individuals - 41%. These data are comparable with available data for the Europe. High frequency of polymorphism in HIV1 subtype A was observed both in treatment-naive and treatment-experienced groups: 26% for A62V, 18% for V77I and 33.8% A62V, 28% V77I respectively.

lic.tatjana@lic.gov.lv
Contact Phone: +371 7014775

2.4.Diagnostics & Monitoring Tools aimed at hard-to-reach populations

PS2.4/1

Detecting excessive alcohol consumption in HIV-infected patients receiving antiretrovirals (ANRS-EN12-VESPA Study): Relevance for adherence, prevention and clinical management

Laurent Michel[1], Lionel Fugon[2], Perrine Roux[3], Bruno Spire[4], M.Patrizia Carrieri[5]
AP-HP, Emile Roux Hospital, Centre de Traitement des Addictions, Limeil-Br France[1], INSERM U912, IRD, Universit France[2 3 4 5]

Background: Alcohol abuse affects secondary prevention and disease progression in HIV-infected patients and adherence and response to treatment in chronically treated patients. The aim of this study was to estimate the prevalence of excessive alcohol consumption (EAC) using different indicators and to assess their relevance in targeting groups at higher risk of alcohol abuse who require different clinical management and interventions.

Methods: A cross-sectional survey based on a random sample, representative of people living with HIV/AIDS was carried out in 102 French hospital departments delivering HIV care. As alcohol abuse is particularly detrimental to patients receiving antiretroviral treatment (ART), we focused on patients receiving ART with complete alcohol assessment (CAGE, AUDIT-C, regular binge drinking, N=2,340). Collected information included medical and socio-demographic data, HIV risk behaviors, adherence to treatment, substance and alcohol use, depression and anxiety (HAD) and experience of attempted suicide or sex work.

Results: EAC prevalence was evaluated as follows: 12% (CAGE score¡Ý2), 27%(AUDIT-C) and 9% (regular binge drinking) and was higher than that observed in the general French population. All EAC indicators significantly predicted reduced adherence and unsafe sex with HIV-negative or unknown serostatus partners. Three groups were at higher risk of EAC: MSM using stimulants, poly-drug users and to a lesser degree, ex-drug users. AUDIT-C exhibited the poorest performance in identifying groups requiring individualized clinical management.

Conclusions: To optimize clinical management and tailor-made interventions, EAC assessment should include at least two dimensions expressing alcohol abuse/ dependence and binge drinking. These results can potentially be extended to other populations receiving treatments requiring strict adherence and for whom alcohol abuse is predictive of negative treatment outcomes.

Contact Phone: +33 4 96102875

PS2.4/2

Antiretroviral drug concentrations in saliva and plasma in patients from Rwanda

Alain Gras[1], Serge Schneider[2], Alexandra Peltier[3], Vic Arendt[4], Christine Omes[5], Anastasie Mujawamariwa[6], Patrick Cyaga Ndimubanzi[7], Gilles Ndayisaba[8], Carole Devaux[9], Jean-Claude Schmit[10],Robert Wennig[11]
Laboratoire National de la Sante, Toxicology CRP-Sante Luxembourg[1 9 10], Laboratoire National de la Sante, Toxicology Luxembourg[2 11], Lux - Development Luxembourg[3 5 6 7 8], Centre Hospitalier Luxembourg, Luxembourg[4]

Background: Saliva may provide interesting advantages as new matrix for therapeutic drug monitoring (TDM). Compared to blood samples, the saliva collection is simpler, non invasive and safer for patients and health workers. The aim of the present study was to investigate the possibility of using saliva for TDM and adherence monitoring of lamivudine (3TC), zidovudine (AZT) and nevirapine (NVP) in a resource limited Rwandan

population.
Materials and Methods: Six men and twenty-three women took part in the study at the Central University Hospital of Kigali in Rwanda. The mean age of the patients was 41 years (range 27 - 60 years). Daily doses were 600 mg AZT, 300 mg 3TC and 400 mg NVP. Blood and saliva samples were collected between 3 to 5 hours (mean 230 min) after the last drug intake. Saliva was collected by a "salivette" devise containing a roll-shaped saliva collector (cellulose) impregnated with citric acid to stimulate salivation. Solid phase extraction of antiretroviral (ARV) drugs was done using 1 ml of the saliva or plasma. Detection and quantification was performed on a HPLC system coupled to a LCQ Duo Ion Trap Detector equipped with an ESI interface.
Results: NVP was detected in all plasma and saliva samples. For 2 patients no AZT was detected in plasma and in saliva samples. In 3 other patients no AZT and no 3TC was detected in saliva despite findings in plasma samples. One AZT saliva sample has been considered as a positive outlier and has been discarded.
As a non-normal distribution of the results was observed, we considered the medians and the interquartile ranges (IQR) for further evaluation. Medians of 3TC, AZT and NVP were 1213 (IQR 837 to 1965), 148 (IQR 107 to 286) and 2707 (IQR 914 to 4586) respectively in plasma and 197 (IQR 161 to 350), 238 (IQR 84 to 612) and 1558 (IQR 462 to 4547) respectively in the saliva. Using a non parametric correlation test (Spearman rank correlation), saliva and plasma concentrations seem to be weakly correlated for all three drugs (AZT: $r = 0.42$, $p < 0.05$; 3TC: $r = 0.38$, $p < 0.05$; NVP: $r = 0.37$, $p < 0.05$). However considering the important interindividual variations of drug concentrations in the saliva it does not seem possible to extrapolate a saliva concentration to a plasma concentration for any of the ARVs tested. The parameters responsible for the high interindividual variations may be salivary pH, salivary flow rate, genetic influences, the diet and / or presence of other drugs and diseases.

Conclusions: In the present study we demonstrated that the unbound plasma drug concentrations of AZT, 3TC and NVP correlate weakly with the saliva concentrations. Due to important interindividual variation, a given saliva concentration does not allow to estimate the plasma concentration. Our results suggest that saliva can be used as a valuable tool for monitoring of compliance of but not for therapeutic drug monitoring.
alain.gras@crp-sante.lu
Contact Phone: + 352 26 97 03 19

PS2.4/3
Monitoring harm reduction: The development of a data collection protocol for specialist harm reduction service providers

Eberhard Schatz, Correlation Network, Netherlands, Dagmar Hedrich, EMCDDA, Portugal, Randi Ervik (Diakonhjemmet University College, Oslo), Jean Long (Health Research Board, Dublin), Ferenc Marvanykövi (RIDS Budapest), Jozsef Racz (RIDS Budapest), Abdalla Toufik (OFDT Paris), Xavier Majo Roca (Department of Health Catalonia, Barcelona)

The aims of a harm reduction approach are to prevent and reduce health-related harm associated with drug dependence, in particular the incidence of blood-borne viral infections and overdoses, and to encourage active drug users to contact health and social services. A broad agreement on the relevance of the approach, as part of a comprehensive strategy to respond to drug use, is reflected in previous and current EU drugs strategies ( ), which include besides prevention, treatment and supply reduction also measures to prevent and reduce health-related harm.
To increase drug users' access to services that help prevent and reduce health-related harm associated with drug use has become a public health objective in the European countries. Within the comprehensive systems of care for drug users that are common in the EU, low-threshold agencies play an important role for increasing drug users' access to care. These agencies are not only considered essential for delivering basic health and social care to current drug users, but are recognized as important points for entering into contact with populations of drug users that are 'hidden', that are more difficult to reach or have lost contact with the care system.
Following a review of the status-quo of monitoring systems in use at low-threshold harm reduction agencies in Europe in 2005, the EMCDDA and the DG-Sanco funded Correlation network jointly developed a European protocol for data-collection at specialist harm reduction service providers, to advance data quality. The protocol contains an 'agency inventory instrument', which is a common format to report the range of health and social services provided at the agencies. It also presents a selection of core-services identified as indicators of overall levels of service provision and proposed for ongoing monitoring; and it finally describes different approaches to collect data on service delivery and clients.
The protocol and the agency inventory as well as the outcome of the pilot tests, implemented by the Research Institute on Drug Studies (RIDS), University of Budapest, among NGOs in seven countries will be presented.
The use of common tools finds general acceptance among specialist harm reduction service providers if monitoring tools are matched to the conditions under which the agencies work. The introduction of standardized tools and agreements about monitoring has the potential to improve the quality and usefulness of the information at local, national and EU level and could ultimately help service planning and evaluation, and, if combined with information on prevalence and patterns of drug use, to assess the coverage of the need for such services.
eschatz@correlation-net.org

3.1 Drug Use, Sexuality and HIV-protection/risk behaviour

PS3.1/1
Eastern European Seafarers: A Silent Occupational Group at High Risk to HIV/AIDS in Need of Immediate Comprehensive Interventions
Don Eliseo III Lucero-Prisno
Cardiff University United Kingdom

Background: Eastern Europe is a major supplier of global seafarers. Russia, Ukraine, Poland, Greece, Turkey, Latvia, Bulgaria, Romania, and Croatia (top ten seafarer supplying countries) contribute 29.4% (of 1.5 million) to the global seafaring population. This occupational group has been traditionally considered at very high risk to HIV/AIDS being highly mobile. These countries have reported HIV infections among their seafarers. Some have increasing incidence. Though there are studies on vulnerability of

mobile populations, there is a dearth of literature on seafarers.

Methods: This paper is part of a bigger qualitative study conducted to assess the vulnerability to HIV/AIDS of the seafarer population. In-depth interviews were conducted. Observations were done in various ports and bars in Bremen, Hamburg, Rotterdam, Amsterdam, Santos (Brazil) and Algeciras (Spain). Onboard observation was conducted. Documents and literature were analyzed. Respondents interviewed were seafarers from Eastern Europe, sex workers, labour union officers and seafarer centre and mission staff.

Results: Knowledge of STD is high among the seafarers owing to high educational attainment, numerous AIDS educational programs in home countries, information provided while working, together with condom provision onboard. In spite of these interventions, seafarers remain at high risk due to risky sexual behaviour and many industry and work-related factors. A big percentage still do not use condom or have selective and inconsistent use. Distorted information on AIDS was a common observation. Diminishing port call due to containerization of cargoes did not diminish their sex-seeking behaviour. They are able to adapt to time changes. The presence of bars on ports catering solely for the seafarers, predictability of ship routes, type of ship, rank of seafarer, stressful life onboard and their ability to pay contribute to their vulnerability. Seafarers are in a liminoid state when they are away from their families thus act differently when they deal with culturally adept commercial sex workers who can work across nationalities. Eastern European seafarers have longer contracts compared to Western European counterparts. This meant prolonged stay onboard and longer time away from the family. Bargaining on condom with sex workers is not based on price but based on continuing the relationship and thus a permanent source of income for the sex workers. The relationship becomes a major factor in STD transmission. Alcohol consumption of Eastern European seafarers and to a limited extent drug use exacerbates the problem. During the fieldwork a number of seafarers were diagnosed for the first time in advanced stage of AIDS prompting hospitalization or repatriation back home. Many seafarers are documented to have consulted for STIs. Obstacles on delivery of AIDS programs for seafarers are based on language and difficulty of reaching and continuity because of their global mobility.

Conclusions: Eastern European seafarers are identified to be at very high risk to HIV/AIDS. There are many risk factors peculiar to the group that need to be addressed. More quantitative and qualitative studies are needed to understand their vulnerability and increasing incidence. More effective, comprehensive, culturally-relevant and sustainable AIDS programs should be developed for this specific mobile population.

Lucero-PrisnoE@cf.ac.uk
Contact Phone: +44-7940130623

3.2 Prevention: Concepts and Effects

PS3.2/1

Overcoming Stagnation in Harm Reduction Projects in Ukraine: The Introduction of Peer-Driven Interventions for IDUs

Oleksandra Datasenko[1], Pavlo Smyrnov[2], Robert Broadhead[3]

AIDS Alliance Ukraine, Ukraine[1] [2], University of Connecticut, United States[3]

BACKGROUND: Harm reduction (HR) projects for IDUs throughout Ukraine have been operating for years, offering needle-exchange, peer-educators, HIV-test counseling, and other traditional services. These projects have become stagnant, catering mostly to older male IDUs who hang-out. Peer-educators' enthusiasm for their work is also highly variable, due to their very limited ability to help drug users, and they seldom gain access to new IDU-networks.
With support from the *Global Fund*, peer-driven interventions (PDIs) were started-up in 5 HR projects in 2006 to determine whether they would rejuvenate them by: (1) recruiting 500 entirely new IDUs within 6 months; (2) recruiting IDUs under-served by HR projects, namely women in general, and IDUs of either gender <25 years age; (3) measuring significant increases in recruits' knowledge of HIV and its transmission.
METHODS: IDUs in all 5 cities reacted enthusiastically to the nominal cash rewards offered to them to educate 3 IDU-peers in the community and recruit them to the project for HR services. All of new recruits were offered the same opportunity to earn rewards by serving as educators and recruiters. The chain-recruitment effort thus expanded exponentially. Recruiters were offered bonus-rewards for recruiting women-IDUs, or IDUs <25 years old who were not former clients of the HR project. Recruiters' success in teaching their recruits in a new body of prevention information was measured by an 8-item knowledge test administered to the recruits when they arrived for services.
RESULTS: Three of the 5 PDI projects met the 6-month recruitment goal. In total, the 5 projects educated 2,162 "fresh faces" in a new body of HIV prevention information and recruited them for HR services. Recruits' knowledge test (KT) scores by age-group on the 8-item knowledge test were high, as see in the following table:

Age-Groups	Male KT scores		Female KT scores		Total	
	Mean (s.d.)	N	Mean (s.d.)	N	Mean (s.d.)	N
< 20 years old	6.72 (1.688)	211	6.41 (1.855)	136	7.29 (1.136)	75
20-25	6.69 (1.677)	1051	6.50 (1.777)	672	7.03 (1.424)	379
> 25	5.64 (1.988)	900	5.50 (2.001)	644	6.01 (1.948)	256

CONCLUSIONS: The PDI in the 5 sites recruited 2,162 new IDUs within six months, and educated each of them in new HIV prevention information. The PDI worked best among IDUs who were <25 years old and/or female – the most promising risk-groups for targeting prevention efforts because (as the KT scores indicate) they learned the most from their recruiters' education efforts. Other data to be presented will show that female and young IDUs also have the lowest HIV infection rates among IDUs in Ukraine. Thus these are the risk-groups that should be most targeted in future prevention efforts.
Based on the results of this 5-site pilot study, the HIV/AIDS Alliance Ukraine scaled-up its prevention efforts for IDUs. A 2nd and 3rd wave of between 15-17 PDIs were implemented nationwide to rejuvenate HIV prevention efforts among IDUs in Ukraine. Impact results from these 2nd and 3rd wave PDI projects will also be presented.

broadhea@hotmail.com Telephone: 1 860 778-6702

PS3.2/2

Peer-Driven Interventions in Russia to Combat HIV among IDUs: Final Impact Results of a Three Year Field Experiment

Robert Broadhead[1], Valerii Volkanevsky[2], Tamara Rudanova[3], Anna Mamina[4], Casey Borch[5], Gordon Gauchat[6]
University of Connecticut, United States[1 6], Yaroslavl Provincial HIV Prevention Center Russian Federation[2 3 4], Center, University of Alabama United States[5]

BACKGROUND: Impact results are reported of peer-driven interventions (PDIs) that operated from 2003 through 2006 in three different cities, 4-5 hours north of Moscow, sponsored by the National Institute on Drug Abuse (R01 DA14691).

METHODS: The PDIs relied entirely on active injection drug users (IDUs) to educate peers in the community and recruit them to a storefront for risk-reduction services. The chain-referral recruitment process expanded in a quasi-geometric progression.

RESULTS: The overall project recruited 3,120 IDUs for baseline intervention, and 2,193 for 6-month follow-up services, a 70% retention rate. Fifty-six percent were 25 or younger; 70% were males. At baseline, the recruits scored 5.7 (s.d.=1.85) or 71% on an 8-point knowledge test that measured how well their recruiters had educated them in the community, and 6.2 (s.d.=1.64) or 78% on a second body of information at the 6-month follow-up session. These results demonstrate that IDU-recruiters can administer two different bodies of prevention information, the first to baseline recruits, the second to follow-up recruits. The respondents' injection frequency of 28.5 injections per month (s.d.=32.8) was significantly reduced to 17.8 (s.d.=24.1) injections at the 6-month follow-up ($t=13.03$, $p<.001$). Equally significant reductions in the respondents' sharing of syringes, cookers and water were also documented ($p.<.001$), and in unsafe sex ($p.<.05$). At baseline, 63% had been tested for HIV; 84% at the 6-month follow-up. At baseline, 2% (54/2728) reported they had medically been told they were HIV+; at follow-up, still only 2% (42/2022) reported being HIV+.

CONCLUSION: IDUs demonstrated they can educate their peers in the community effectively in two different bodies of prevention information, and recruit them at high levels for baseline and follow-up intervention sessions. The respondents significantly lowered their risk behaviors in response to the intervention. The PDI is a viable HIV prevention mechanism for use in Russia.

broadhea@hotmail.com
Telephone: 1 860 778-6702

PS3.2/3

Preliminary indications of impact of prevention programs among injecting drug users on the HIV epidemic in Ukraine

Olga Varetska[1], Tatyana Salyuk[2], Larisa Bochkova[3]
International HIV/AIDS Alliance in Ukraine[1 2], Ukrainian Center for HIV/AIDS Prevention, Kyiv, Ukraine[3]

Background: Unsafe injecting drug use in Ukraine is the main determinant of the rapid growth of the HIV epidemic in Ukraine. The significant increase in funding and services for HIV prevention programs among injecting drug users (IDUs) in Ukraine (from the Global Fund, state budget and other sources) raises the question whether these programs have made an impact in controlling the epidemic among this population.

Methods: Data triangulation was used to assess the impact of prevention programs among IDUs in Ukraine. Data was obtained from different sources (monitoring data of prevention programs, second generation surveillance studies among IDUs, regular sero-surveillance among IDUs). Data were analyzed over a three year period (2004-2007) to identify causal relationships.

Results: The coverage of prevention programs among IDUs increased (38% in 2004 compared to 46% in 2007, according to BSS data); safe behaviors among IDUs, including the use of sterile injecting equipment (50% in 2004 and 84% in 2007), and condom use (34% and 55% correspondingly) also increased. The number of newly reported cases of HIV among IDUs decreased slightly in 2007 (7,127 in 2006 to 7,084 in 2007). Data from sentinel surveillance in different sites also provides evidence that the HIV epidemic among IDUs may be stabilizing: median HIV prevalence among recent IDUs (less than two years of injecting drug use) decreased from 23.8% in 2005 to 20.2% in 2006 and 16.4% in 2007 (n=12).

Conclusions: Positive changes in recent behavioral and epidemiological trends among IDUs may be linked to the results of HIV prevention programs. If current trends persist, Ukraine will have evidence of the positive outcomes and impact of prevention programs among IDUs. Evidence that sexual transmission is closely linked to injecting drug use in Ukraine illustrates the need to implement more robust prevention programs among IDUs, focused on prevention of HIV transmission through sexual transmission, as well as injecting drug use.

varetska@aidsalliance.org.ua
Contact Phone: +380503582203

Scientific Abstracts - Poster Presentations

www.aidsvilnius2009.com

1.1 New ARV therapy strategies

PE1.1/1
ADHERENCE TO ANTI-RETROVIRAL THERAPY AMONG PATIENTS IN BANGALORE, INDIA.

Mary Cauldbeck[1], Catherine O'Connor[2], Jean Saunders[3], Mortimer O'Connor[4], B Rao [5], VG Mallesh[6], Claire McGoldrick[7], RBS Laing[8], KS Satish[9]
University of Aberdeen United Kingdom[1], Mid-Western Regional Hospital Ireland[2], University of Limerick Ireland[3], South Infirmary - Victoria University Hospital Ireland[4], Wockhardt Hospital and Heart Institute, Bangalore India, India[5 6 9], Aberdeen Royal Infirmary, Scotland[7 8]

Background: Human Immunodeficiency Virus (HIV) has an estimated prevalence of 0.9% in India (5.2 million). Anti-retroviral drugs are the treatments of choice and non-adherence is an important factor in treatment failure and development of resistance, as well as being a powerful predictor of survival. This study proposes to assess adherence to ART in HIV+ patients in Bangalore, India a country where 10% of those who need get therapy.

Methods: As a consequence of this a cross-sectional anonymous questionnaire survey of 60 HIV+ patients was carried out on patients attending HIV outpatient services in Bangalore, India. Consent was obtained from each participant. Translation was done when required. Data was analysed using SPSS.

Results: A response rate of 53/60 (88%) was achieved. Mean patient age was 39.85 yrs, with 50% aged 30-40. 73.6% of participants were male. 60% were fully adherent. Mean family size =4.8 (1-13). 21% lived <50kms & 21% >400kms from clinic. Adherence was statistically significantly linked to regular follow-up attendance (70.5%, p=0.002). No other results were statistically significant but trends were found. Better adherence were seen in older patients (>40=50%, <40=15%), males, those from larger families, those who had AIDS (AIDS=72%, Well= 50%), those taking fewer tablets (<5 =76%, 5-9=41%) and without food restrictions (Without=70%, With= 48%). Commonest side-effects causing non-compliance were metabolic reasons (66%) and GIT symptoms (50%). No differences were seen for education level, family income, distance travelled to clinic, time since diagnosis, or time on ART.
Conclusions: From this we conclude that regular attendance for follow up was statistically significant for adherence. Positive trends were seen in those in larger families, older, those who had AIDS, simple regimes, and without side-effects. Education income, distance travelled and length of time diagnosed or treated had no effect
mortimer_o_connor@hotmail.com
Telephone: +353863822903

PE1.1/2
THE DOLABELLANE DITERPENE DOLABELLADIENETRIOL IS A TYPICAL NONCOMPETITIVE INHIBITOR OF HIV-1 REVERSE TRANSCRIPTASE ENZYME – THE PERSPECTIVE OF THE NEW MICROBICIDE

Claudio Cirne-Santos[1], Val Teixeira[2], Luiz Roberto Castello-Branco[3], Izabel Paixao Frugulhetti[4]
Oswaldo Cruz Foundation/ Ataulpho de Paiva Foundation Brazil[1], Federal Fluninense University Brazil[2], Oswaldo Cruz Foundation Brazil[3], Federal Fluminense University Brazil[4]

We recently described that the diterpene (Dolabelladienetriol), inhibits HIV-1 RT enzyme and viral replication in primary cells. The aims of this study were to perform kinetic analysis, to investigate whether Dolabelladienetriol could synergize with other antiretrovirals, to verify whether this compound could inhibit HIV-1 isolates presenting drug resistance mutations, and introduce the compound as a possible new potential microbicide.
Peripheral blood mononuclear cells (PBMCs) from healthy donors were infected with HIV-1, and proviral integration was observed by polymerase chain reaction. The effect of Dolabelladienetriol on DNA polymerase activity of HIV-1 RT was analyzed by steady-state kinetics using HIV-1 recombinant RT. Synergistic effect on HIV-1 replication were evaluated by treating HIV-1-infected cells with Dolabelladienetriol plus others antiretrovirals. Viral replication was evaluated by measuring HIV-1 p24 Ag in culture supernatants by ELISA. A recombinant virus assay technology was used to generate viruses carrying mutations that confer resistance to non-nucleoside RT inhibitors (NNRTI) and the inhibition of mutant virus replication was determined in MT4 cells using the Rizasurin-based cell viability assay.
Dolabelladienetriol blocked the integration of HIV-1 provirus and ablated HIV-1 replication in PBMCs. Dolabelladienetriol Ki value was 7,2 uM. Kinetic studies with respect to dTTP/template-primer detected that Dolabelladienetriol is a noncompetitive inhibitor of RT. Dolabelladienetriol presented an additive effect with AZT and a synergistic effect with Atazanavir. Dolabelladienetriol presented a potent antiretroviral activity against a panel of eleven HIV-1 isolates carrying common NNRTI-associated resistance mutations. Recently our group has been investigate whether this diterpene can be used as a microbicide.
Dolabelladienetriol might act at the pocket of the palm region of RT, similarly to others NNRTIs. We propose that the NNRTI Dolabelladienetriol could be considered as a potential new agent for HIV-1 therapy, or acting as a microbicide gel.
claudiocirne@gmail.com
Contact Phone: 55 21 94619250

PE1.1/3
The HIVCENTER-LAVRA clinical Partnership - European ties within an international network to improve treatment of HIV/AIDS

Sebastian Kessler[1], Tessa Lennemann[2], Svetlana Antonjak[3], Reinhardt Brodt[4], Pavel Khaykin[5],
Hospital of the Goethe University Frankfurt/Main, HIVCENTER, Frankfurt Germany[1 2 5], Lavra Clinic, Kiev, Ukraine[3], Hospital of the Goethe University Frankfurt/Main, Department of Infectiology, Frankfurt Germany[4]

Background. The clinical partnership between the Lavra-Clinic, Kiev, Ukraine and the HIVCENTER, Frankfurt, Germany aims to develop Lavra as a national centre of excellence. In the Ukraine the capacity for a high-quality HIV-Therapy needs to be further developed. The health facilities often can not ensure a sustained benefit of antiretroviral therapy (ART). Analyzing treatment results are keep on being a challenge and drug resistances, toxicities and long term treatment complications are not managed satisfyingly. This is due to a lack of qualified physicians.

There is neither the capacity to ensure a high standard of treatment and care nor to conduct research on subjects which are specific for the Ukrainian cohort such as how to optimize strategies for treating TB/HIV co-infected patients.
The clinical partnership between the two centers is integrated in the "International Partnership on HIV" (IPH). An interdisciplinary, international network of centers specialized on HIV-Therapy and research. The IPH represents the diverse and distinct settings within which HIV takes place ranging from Germany, with its individualized therapy, low HIV prevalence and strong health system, to Lesotho, one of the Least Developed Countries where high HIV prevalence is addressed by a public health approach. With the Ukraine and South Africa the network also includes two intermediate scenarios. Hence the network allows benefiting from the mutual strengths located in the different institutes.
Method: The IPH conducts training activities for the staff at the centre in Kiev according to modern standards of Good Clinical Practices (GCP) and HIV-therapy. It promotes knowledge exchange between the clinicians and supports the creation of a research agenda at the HIV-Unit at Lavra specifying on local challenges by providing the necessary resources and advice.
Results: In September 2008 an on-site-training course has been carried out. It focused on the HIV-Therapy of Intravenous Drug Users (IDU), the subject of HIV/TB co-infection and on GCP. In November the Ukraine participated in the summer-school series of the IPH where aspects of current ARTs were discussed. Furthermore online discussions of clinical cases have been established to ensure a sustainable exchange of knowledge between the centers. Currently the Ukrainian partner is taking an English language course to simplify the communication between the institutes and thus enlarges the base for further cooperation.

Conclusion: The networking structure of the IPH promotes the dissemination of knowledge, experience and ideas. It allows benefiting from mutual knowledge exchange and to conduct research on challenges to HIV-therapy which are specific to the Ukrainian setting. Like this cooperation improves care-taking and motivates the health personal in the respective institutes. It thus contributes to improve the quality of patient-treatment.
sebastian.kessler@hivcenter.de
Contact Phone: 004969630187770

PE1.1/4
ARTEMIS: Efficacy and Safety of Darunavir/ritonavir (DRV/r) 800/100 mg Once-daily vs Lopinavir/ritonavir (LPV/r) in Treatment-naïve, HIV-1-infected Patients at 96 Wks
A Mills[1], M Nelson[2], D Jayaweera[3], K Ruxrungtham[4], M Prakash[5], I Cassetti,[6] PM Girard[7], C Workman[8], I Dierynck[9], V Sekar[10], C Vanden Abeele[11], L Lavreys[12]
USA[1 3], UK[2], Thailand[4], Argentina[6], France[7], 6Australia[8], Tibotec[5 9 10 12]

Background: DRV/r efficacy & safety are compared with LPV/r in treatment-naïve patients (pts) in ARTEMIS; Wk 96 results are shown.

Methods: Pts (HIV-1 RNA [VL] ≥5000 cpm, stratified by baseline [BL] VL & CD4) received DRV/r 800/100 mg qd or LPV/r 800/200 mg total daily dose, + TDF & FTC. Primary endpoint: non-inferiority of DRV/r to LPV/r (Δ −12%) in confirmed VL <50 cpm, ITT-TLOVR. DRV/r superiority (Δ 0%) was assessed if it was non-inferior.

Results: 689 pts randomized & treated; mean BL VL: 4.85 log10 cpm; median CD4: 225 cells/mm3.
Significantly more DRV/r than LPV/r pts had VL <50 cpm, confirming DRV/r non-inferiority (p<0.001) and superiority (Table). DRV/r response rates were statistically superior to LPV/r in pts with high BL VL & low BL CD4, demonstrating higher potency of DRV/r. Fewer DRV/r than LPV/r pts (4% vs 9%) discontinued treatment due to adverse events. Fewer DRV/r than LPV/r pts (4% vs 11%, p=0.0006) had grade 2-4 treatment-related diarrhea. Grade 2-4 treatment-related rash occurred infrequently (3% DRV/r vs 1% LPV/r, p=0.273). DRV/r pts had smaller mean increases in triglycerides & total cholesterol (0.1 & 0.6 mmol/L) than LPV/r pts (0.8 & 0.9 mmol/L, p<0.0001 for both); levels remained below NCEP cut-offs.

VL <50 cpm (ITT-TLOVR), n (%)	DRV/r	LPV/r	DRV/r–LPV/r [95% CI]	P value of superiority
All pts	271/343 (79)	245/346 (71)	8 [2; 15]	0.012
BL VL <100,000 cpm	182/226 (81)	170/226 (75)	5 [−2; 13]	0.174
BL VL ≥100,000 cpm	89/117 (76)	75/120 (63)	14 [2; 25]	0.023
BL CD4 <200 cells/mm3	111/141 (79)	96/148 (65)	14 [4; 24]	0.009
BL CD4 ≥200 cells/mm3	160/202 (79)	149/198 (75)	4 [−4; 12]	0.345

Conclusions: At 96 wks, DRV/r 800/100mg qd proved non-inferior and statistically superior to LPV/r in treatment-naïve pts. DRV/r was associated with lower rates of diarrhea and smaller mean increases in triglycerides & total cholesterol.

PE1.1/5
Resistance development in virological failures with DRV/r or LPV/r: 96-week analysis of the Phase III TITAN trial in treatment-experienced patients
Sandra De Meyer[1], Erkki Lathouwers[2], Inge Dierynck[3], Els De Paepe[4], Manyu Prakash[5], Ben Van Baelen[6], Tony Vangeneugden[7], Frank Tomaka[8], Marie-Pierre de Bethune[9], Gaston Picchio[10]
Tibotec BVBA, Mechelen, Belgium[1 2 3 4 5 6 7 9]
Tibotec Inc, Yardley, PA, USA[8 10]

Objective: In the randomised, controlled, Phase III TITAN trial, at week 96, significantly more patients on darunavir co-administered with low-dose ritonavir (DRV/r) than on lopinavir/r (LPV/r) achieved HIV-1 RNA 400 copies/mL (67.5% vs 59.5%; difference 8%, 95% CI 0.1–15.8), confirming noninferiority (p0.001) and superiority of DRV/r over LPV/r (p=0.034). A detailed resistance characterisation of virological failures (VFs) was performed.

Methods: Treatment-experienced, LPV-naïve patients with HIV-1 RNA >1,000 copies/mL were randomised to DRV/r 600/100mg bid (n=298) or LPV/r 400/100mg bid (n=297) combined with an optimised background regimen (NRTIs NNRTI). VFs were defined as patients who lost or never achieved HIV-1 RNA <400 copies/mL after Week 16. Genotyping and phenotyping (Antivirogram) were performed by Virco.

Results: The VF rate in the LPV/r arm (25.6%, n=76) was higher than in the DRV/r arm (13.8%, n=41). Among VFs with an available genotype at baseline and endpoint (72 for LPV/r and 39 for DRV/r), more patients developed primary protease inhibitor (PI) mutations at endpoint in the LPV/r arm (n=25) than in the DRV/r arm (n=7). Primary PI mutations developing in DRV/r VFs were V32I in 3 patients, I47V and L76V in 2 patients and M46I, I54L, I54M and L90M in 1 patient. All but the M46I and L90M mutations were 2007 DRV RAMs. In addition, more VFs developed NRTI RAMs in the LPV/r arm (n=20) than in the DRV/r arm (n=4). Phenotypically, more LPV/r VFs than DRV/r VFs lost susceptibility to the study PI (17/55 vs 3/36) or any PI (25/69 vs 7/37). Among the DRV/r VFs, the majority retained susceptibility to amprenavir (31/31), atazanavir (29/30), indinavir (31/32), LPV (33/33), nelfinavir (24/26), saquinavir (31/31) and tipranavir (34/35). Furthermore, more LPV/r VFs than DRV/r VFs lost susceptibility to the NRTI(s) used in the OBR (20/55 vs 4/35) or any NRTI (27/66 vs 7/38). Similar results were obtained when patients with LPV FC >10 or patients who previously used 2 PIs were excluded from the analysis.
Conclusion: In this treatment-experienced, LPV-naïve patient population, the overall VF rate with DRV/r was half compared to LPV/r. Furthermore, the majority of DRV/r VFs did not develop primary PI mutations or NRTI RAMs and preserved susceptibility to PIs and NRTIs.

PE1.1/6

Identification of mutations predictive of a diminished response to darunavir/ritonavir: Analysis of data from treatment-experienced patients in POWER 1, 2, 3 and DUET-1 and 2

S De Meyer[1], I Dierynck[2], E Lathouwers[3], B Van Baelen[4], M Prakash[5], T Vangeneugden[6], S Spinosa-Guzman[7], G Picchio[8], M-P de Bethune[9]
Tibotec BVBA, Mechelen, Belgium[1 2 3 4 5 6 7 9], Tibotec Inc, Yardley, PA, USA[8]

Background: Analyses of the POWER studies conducted in treatment-experienced patients showed a diminished response to the protease inhibitor (PI) darunavir (DRV, TMC114) administered with low-dose ritonavir (DRV/r) when ≥3 of 11 protease mutations (V11I, V32I, L33F, I47V, I50V, I54L/M, G73S, L76V, I84V and L89V; 2006 DRV Resistance-Associated Mutations [RAMs]) were present at baseline. New analyses have now been performed on a larger clinical dataset.
Methods: Analyses were performed on pooled data from 1071 patients who initiated treatment with DRV/r 600/100mg bid from POWER 1, 2 and 3 and from the placebo groups of DUET-1 and 2 (receiving DRV/r and placebo). The effect of baseline protease mutations on susceptibility to DRV and virologic response, as well as protease mutations that developed during treatment with DRV/r, were studied. Specifically, three criteria were used to identify DRV RAMs: 1) protease mutations associated with an increased DRV fold change in EC_{50} using a stepwise regression model; 2) baseline protease mutations associated with a diminished virologic response (<75% of the overall response) at Week 24 in the group of patients who did not use or who re-used enfuvirtide; and 3) protease mutations developing in 10% of virologic failures by rebound. Mutations were selected if they met two of these three criteria. Genotypes and phenotypes of plasma viruses were determined by Virco. Virologic response (HIV-1 RNA <50 copies/mL) was determined by time-to-loss of virologic response analysis, excluding discontinuations for reasons other than virologic failure.
Results: Eleven protease mutations met two of the pre-defined criteria and thus were included in the 2007 DRV RAMs list. The only difference between the 2006 and 2007 DRV RAMs lists is the exclusion of the G73S and the addition of the T74P protease mutation. Analysis of variance models confirmed the predictive value of the 2006 DRV RAMs and showed that the 2007 DRV RAMs were slightly more predictive of response. Each of the mutations in the 2007 DRV RAMs list was present with a median number of 13–15 PI RAMs (2006 IAS-USA list). The presence of 3 2007 DRV RAMs was predictive of a diminished response in patients who did not use or who re-used enfuvirtide.
Conclusions: The availability of a larger clinical dataset (1071 patients in the combined POWER and DUET studies versus 458 in the POWER studies alone) allowed for the performance of new analyses to identify mutations associated with resistance to DRV. These analyses looked not only at the influence of baseline mutations on virologic response and susceptibility to DRV, but also at the development of mutations in patients experiencing virologic failure. They confirmed 10 out of the 11 DRV RAMs identified previously (2006 DRV RAMs) and identified a new mutation, T74P, resulting in the following 2007 DRV RAMs: V11I, V32I, L33F, I47V, I50V, I54L/M, T74P, L76V, I84V and L89V. While both the 2006 and 2007 DRV RAMs were predictive of virologic response, a slightly better prediction was observed with the 2007 list. The presence of ≥3 2007 DRV RAMs was associated with a diminished virologic response.

PE1.1/7

Etravirine protects the activity of darunavir in the DUET trials

M Peeters[1], J Vingerhoets[2], L Tambuyzer[3], H Azijn[4], M Prakash[5], A. Hill[6], S De Meyer[7] , G. Picchio[8]
Tibotec BVBA, Mechelen[1 2 3 4 5 7], Belgium, University of Liverpool[6], Tibotec Inc, Yardley, USA[8]

It has been shown in the TITAN study that darunavir/ritonavir (DRV/r) was more effective than lopinavir/ritonavir in protecting against the emergence of NRTI mutations. The protective effect of etravirine (ETR) on the development of DRV resistance was studied in patients experiencing virologic rebound in the ETR and placebo arms of the DUET trials.

In this analysis, patients with a virologic rebound were defined as those who showed a virologic response at earlier time points but rebounded to >50 copies/ml in the DUET Week 48 dataset. Phenotyping and genotyping at baseline and endpoint were performed with the Antivirogram and virco®TYPE HIV-1 assays, respectively, if viral load (VL) was >1000 copies/ml. Emerging mutations were those present at endpoint (i.e. the last available

resistance test on treatment) but not at baseline. Patients who discontinued the trial for nonvirologic reasons were excluded.

Baseline DRV susceptibility was balanced across treatment arms: overall median (range) number of primary protease inhibitor (PI) mutations: 4 (0-8), DRV resistance associated mutations (RAMs): 2 (0-8), DRV fold change (FC): 6.40 (0.2–908.9) and 64% of patients had DRV FC10 at baseline. ENF use and NRTI susceptibility were balanced between arms.
Virologic rebound occurred in 57 (11%) and 119 (22%) patients in the ETR and placebo arms, respectively. Among those experiencing a rebound, fewer patients in the ETR arm developed DRV RAMs (63% vs 96% in placebo, p<0.0001). The median number of emerging DRV RAMs was 1 and 2 in the ETR and placebo arms, respectively. The most frequently emerging DRV RAMs in the ETR and placebo arms were V32I (32% vs 60%), I54L (16% vs 34%) and I47V (11% vs 8%). DRV FC at rebound versus baseline increased 2.8-fold and 10.1-fold in the ETR and placebo arms, respectively (p<0.0001). Among the patients with virological rebound that had a DRV FC 10 at baseline, 47% in the ETR arm versus only 7% in the placebo arm still had a DRV FC 10 at endpoint.

In the DUET studies, ETR-treated patients experienced less virologic rebound and loss of DRV susceptibility than those in the placebo arm. Among those with virologic failure, ETR-treated patients showed less emergence of resistance to DRV.

PE1.1/8
An update of the list of NNRTI mutations associated with decreased virologic response to etravirine: multivariate analyses on the pooled DUET-1 and DUET 2 clinical trial data
J Vingerhoets[1], M Peeters [2], H Azijn[3], L Tambuyzer[4], M Prakash[5], A Hoogstoel[6], S Nijs[7], MP de Bethune[8] and G Picchio[9]
Tibotec BVBA Mechelen Belgium[1 2 3 4 5 6 7 8], Tibotec Inc., Yardley, PA, USA[9]

Background: Etravirine (TMC125) is a next generation NNRTI, with activity against NNRTI-resistant HIV-1 and a high genetic barrier to development of resistance. Analyses of the pooled DUET-1 and DUET-2 phase III clinical trials identified 13 etravirine RAMs (V90I, A98G, L100I, K101E/P, V106I, V179D/F, Y181C/I/V, and G190A/S). The presence of 3 or more of these RAMs was associated with decreased virologic response to etravirine. In this study, additional statistical approaches were used to refine this list and improve the genotype/phenotype correlation.

Methods: Effect of baseline resistance on virologic response (<50 copies/mL) to etravirine at week 24 was studied in patients not using enfuvirtide *de novo* and excluding those who discontinued for other reasons than virologic failure (n=406). Multivariate analyses included logistic regression controlling for baseline viral load, darunavir fold change in EC50 (FC) and NRTI sensitivity. Mutations were identified based on the association with decreased virologic response and/or increased etravirine FC. Mutations in the RT (amino-acids 1-400) were included in the final analysis if present in 5 patients.

Results: The analyses confirmed the impact on response of the 13 etravirine RAMs identified previously and also identified K101H, E138A and V179T as associated with a decreased virologic response and/or increased etravirine FC. The V179F/T, Y181V, and G190S mutations were associated with the lowest virologic response but were present in <5% of patients at baseline. Virologic response decreased in subgroups with increasing numbers of baseline etravirine RAMs (77%, 61%, 56%, 38% for 0, 1, 2, 3 RAMs, respectively). Relative weighting of the 16 etravirine RAMs improved the correlation between baseline etravirine FC and the number of etravirine RAMs.

Conclusions: A comprehensive analysis of baseline resistance data from DUET-1 and DUET-2 identified three additional mutations resulting in a list of 16 etravirine RAMs (V90I, A98G, L100I, K101E/H/P, V106I, E138A, V179D/F/T, Y181C/I/V, and G190A/S). Weighting these mutations improved the correlation between genotypic and phenotypic resistance interpretations. Decreased virologic response was a function of the number of baseline etravirine RAMs with the largest impact observed in the subgroup of subjects with 3 or more RAMs.

PE1.1/9
IPF displays significant Antiviral activity in vitro without provoking the presentation of resistant profiles of minority subspecies
Jeannie Gibbs[1], Harry Zablov[2], Immunotech Labs United States[1 2]

Background. The occurrence of multiclass antiretroviral resistance remains high, distinctly so in disenfranchised patient populations, whose predictable ability to remain adherent to even increasingly simplified regimens remains clinically prohibitively low. Other mechanisms of addressing HIV infection are therefore sorely needed. IPF, like other natural autoantibody based fractionated protein have an affinity to pathogenic binding and produces a simultaneous affect of immune homeostasis in the presence of replicate competent HIV. IPF has shown significant antiretroviral activity via immune stimulatory pathways in vitro, notably helper T1 cells and the presentation of elaborate cytokines notably INFƒ×, IL-2 that selectively promote cell-mediated immune responses that are disadvantageous to viral replication without selecting for the pathogenesis of resistant profiles of minority subspecies.

Methods. Flow cytometric analysis of these cells using DC monoclonal antibodies reveals this hypothesis to be negative: these cells do not stain with the CD markers.
Subsequent analysis of these cells using Annexin-V and flow cytometry shows that these cells are apoptotic: they express PS on their outer membranes thereby allowing the binding of Annexin-V to these phospholipids. They are therefore undergoing programmed cell death. Measured (via BIACORE system) for surface plasma response (SPR), which detects the mass concentration at the surface through sensor chips, which provide surface conditions for SPR for attaching molecules of interest via micro fluidic flow.

Results . IPF is able in vitro to mediate maturation of dendrite cells as determined by up-regulation of MHC class-II, CD86 and CD83 molecules, regulate pro-inflammatory cytokines IL-12 and INFƒÑ, and enhanced T-cells stimulatory capacity.
These include modulation of complement activation;

saturation of Fc receptors on macrophages; and suppression of various inflammatory mediators, including cytokines and chemokines, IPF has demonstrated increased synthesis of Th-1 cells and displayed significant affinity binding to gp41, preventing the virus from fusing with CD4 cells and increasing the antigenic activity of gp41 and gp120, stimulating virus-specific CD8 cells that induce apoptosis in CD4 cells. Apoptosis is a beneficial physiological mechanism in chronic viral diseases since it has been shown that inhibiting this process leads to increased viral replication. Hence, should IPF induce apoptosis in the CD4 cells, it would indirectly be promoting viral control and a slowing down of disease progression.

Conclusion. IPF targets binding of gp41 and gp120 and appears to modulate helper T1 cells expression of elaborate cytokines INFƒ×, IL-2 that selectively promote cell-mediated immune response thereby stimulating cytotoxic lymphocytes which play a prominent role in host defense against infection by HIV as proteins encoded with RNA enter the endogenous pathway for antigen presentation and therefore are expressed on the surface of the infected cell as a complex with class I MHC- proteins. IPF may present a new opportunity via a novel mechanism to reduce viral replication and stimulates immune response in the presence of significant antiretroviral resistance.
jem0407gibbs@yahoo.com
Contact Phone: +1 917-330-0623

1.2 Important aspects of current ARV therapies

PE1.2/1
p/h/o Koch's as a significant risk factor in HIV positive patients with tuberculosis and effect of anti tubercular treatment on the improvement of HIV patients receiving HAART
Apurvadan Ratnu
Lambda Therapeutic Research Ltd, Ahmedabad India

Objectives: - to find out risk of having TB as a opportunistic infection in HIV positive patients with or without past history of Koch's. To check the improvement with regards to improvement in CD4 counts of either group namely patients taking HAART only and patients receiving HAART and dots (anti tubercular treatment).

Method: - a retrospective study of 1910 HIV reactive patients on triple drug regimen HAART, from May 2005 to December 2006was carried out. Out of 1910 patients, 705 patients had tuberculosis as a co-infection or opportunistic infection. We subdivided the following data into patients with TB & HIV and HIV alone, and analyzed that data for various factors like age & sex distribution, prevalence of OI's, risk factors, p/h/o Koch's, initial and last CD4 (mean) and improvement in different groups. At the end of analysis we find out the following observation.

Results: -out of 1910 patients there were 705 patients who had HIV & TB while there were remaining 1205 patients who only had HIV. These 705 patients were subdivided into pulmonary TB (261) and extra pulmonary TB (529) groups. These groups were compared for various socio demographic parameters. Past history of Koch's was found to be positive for 11pts. (0.91%) among the only HIV positive pt. group while it was 247 (94.63%) in HIV & pulmonary TB group and 489 (92.43%) in HIV & extra pulmonary TB group. initial mean CD4 above mentioned groups were 169, 130 and 142 for HIV alone, HIV & pulmonary TB and HIV & extra pulmonary TB groups respectively. as far as improvement was concerned with regards to improvement in mean cd4 was almost same in all the groups. it was 96, 91, and 98 in HIV alone, HIV & pulmonary TB and HIV & extra pulmonary TB groups respectively.

Conclusions: - tuberculosis is one of the most common opportunistic infection in HIV positive patients. In tuberculosis extra pulmonary tuberculosis is more common than pulmonary tuberculosis. More than 92% patients' having either tuberculosis had past history of Koch's suggestive of reactivation of disease rather than re infection. Patients with tuberculosis had less cd4 counts than HIV only group suggestive of depression of immunity is aggravated by tuberculosis in HIV positive patients. Immunological improvement was almost same in both the categories after treatment with HAART and dots suggestive of proper treatment can counteract immunological hamper caused by tuberculosis.
Email: ncratnu@yahoo.co.in
Telephone: 91-9427606740

PE1.2/2
A COMPARATIVE STUDY OF HUMAN IMMUNODEFICIENCY VIRUS ANTIBODY POSITIVE PATIENTS IN IRELAND & AUSTRALIA
Mortimer O'Connor[1], Catherine O'Connor[2], Jean Saunders[3], Catherine Sheehan[4], Elizabeth Murphy[5], Mary Horgan[6], Andrew Carr[7]
University College Cork Ireland[1], Mid Western Regional Hospital Ireland[2], University of Limerick Ireland[3], Cork University Hospital Ireland[4 5 6], St Vincent[7]

Background: Differences between HIV antibody positive patients in developed and third world countries are publicised. This study proposes to compare patients demographically, medically and therapeutically in Ireland & Australia.

Methods: A Cross-sectional self-administered anonymous questionnaire survey of HIV antibody positive patients attending HIV outpatient services in both countries was conducted. Data on diagnosis, treatment, future outlook and demographics were studied. The data was analysed using SPSS. Ethical approval was prospectively received in both countries.

Results: A response rate of 71%(93/131)[Ire] & 76%(148/194)[Aus] was achieved, with a mean age of 36(20-67)[Ire] & 45(20-71)[Aus]. Mean time diagnosed was 4.5yrs[Ire] & 11.8yrs[Aus], while a diagnostic CD4 <200 was recorded in 35%[Ire] & 22%[Aus] of patients. 64%[Ire] & 85%[Aus] are currently on HAART. Resistance in patient started on ART post-HAART is minimal at 0%[Ire] & 2% [Aus]. Statistically significant findings included the following: 1) History of Gonorrhoea and Syphilis (a) in all subgroups in both countries, (b) is more likely with CD4 <200 at diagnosis(p=0.035). 2) Recreational drug use is higher in (a) younger people(p=0.021), (b) males(p=0.007), (c) homosexuals(p=0.05). 3) Alcohol use more likely in males(p=0.03). 4) Patients with HIV+ partners are less likely to use condoms(p=0.012). 5) Mean lifetime partner numbers predictive of number in last 6 months. 6) Doctor requesting a test is associated with no previous test(p=0.038). There were no factors associated with: 1)

place of diagnosis, 2) "ill" at diagnosis, 3) on ART, 4) having a regular sexual partner, and 5) sharing diagnosis with others.

Conclusions: Due to this study's findings one can conclude that resistance post-HAART is minimal. Despite positive findings improvements are needed in STI prevention, Doctors being proactive in testing, condom use with HIV antibody positive partners, addictive substance habits in younger male homosexuals, and the number of sexual partners of HIV antibody positive patients post-diagnosis.

mortimer_o_connor@hotmail.com
Telephone: +353863822903

PE1.2/3

The impact of opioid substitution treatments (OST) on self-reported symptoms in individuals HIV-infected through drug use receiving antiretroviral treatment: results from the MANIF 2000 cohort study.

M. Patrizia Carrieri[1], Perrine Roux[2], Julien Cohen[3], Isabelle Poizot-Martin[4], Isabelle Ravaux[5], Camelia Protopopescu[6], Bruno Spire[7]
INSERM U912 (SE4S), IRD, ORS PACA, Marseilles, FR FRANCE[1 2 3 4 5 6 7]

Background: Opioid substitution treatment (OST) can foster adherence to antiretroviral treatment (HAART) in HIV-infected drug users and potentially improve HIV outcomes. However, as methadone and buprenorphine have a different pharmacologic profile and were initially designed as analgesics, it is still unknown which is their impact on self-reported HAART–related symptoms that are known to interfere with adherence to HAART.

We used longitudinal data from the MANIF2000 cohort of individuals HIV-infected through drug use and receiving both HAART and OST to compare the impact of buprenorphine and methadone on self-reported HAART–related symptoms while taking into account for non random assignment of the type of OST.

Methods: This study was conducted in outpatient hospital services delivering HIV care in France. We used 5-year longitudinal data from the MANIF2000 cohort after having selected individuals receiving HAART and OST, corresponding to 342 visits in 106 patients. Data were collected every six months for each patient. The number of self-reported symptoms at any visit was used as outcome. A 2-step Heckman approach allowed us to account for the non random assignement of OST: a probit model was used to identify predictors of starting either buprenorphine or methadone, then a linear model based on Generalized Estimating Equations (GEE) was used to identify predictors of the number of self-reported symptoms while correcting for the bias induced by non random assignment.

Results: Among the 106 patients, 74% were men. Median age was 37 years. At baseline, 70% and 30% patients were respectively receiving buprenorphine or methadone. Depressive symptoms were present at least once in 81 patients (76.4%). The median [IQR] number of self-reported side effects was 3 [1-6]. After multiple adjustments, including that for non random assignment of type of OST, the second step model showed that in HAART-treated patients, those receiving methadone treatment were more likely to report a lower number of symptoms than those receiving buprenorphine. The others factors which remained independently associated with a higher number of self-reported symptoms were: depression in men, female gender, age and unemployment. Additionally, anxiolytics consumption and daily cannabis use were independently associated with a higher number of self-reported symptoms. Patients reporting experience of withdrawal symptoms in the prior 6 months were significantly more likely to report a higher number of symptoms.

Conclusions: Methadone patients report a lower number of HAART-related symptoms. Given the pharmacologic profile of methadone, that is a total opioid agonist, it is possible that painful symptoms (related or not to HAART) could be better controlled by the analgesic effects of methadone. Further experimental research is needed to confirm these results and to identify the best OST-HAART strategy able to maximize patient's outcomes while minimising the burden of side effects and potential interactions.

Email: pmcarrieri@aol.com
Contact Phone: +33 4 96102875

PE1.2/4

Survival of HIV infected patients from Galati- Romania

Manuela Arbune[1], Mihaela Debita[2]
"Dunarea de Jos" University Galati Romania[1 2]

Background: Peculiarity of Romanian HIV epidemic was the joint of a slow growing adult epidemic and a pediatric epidemic, prevailed by a cohort born between 1988 -1990 horizontally infected and a high number of long time survivors. HAART begun available from 1998.
Objectives: 1. To estimate the survival time from HIV diagnostic of treated group (TG) comparative to no treated group (NTG). 2. To estimate the durability of the first line of HAART. 3. To characterize the features of the HIV survivors on December 2008.
Methods: Retrospective study of the patients confirmed with HIV infection between 1990 -2008 from Galati county, followed up at least 12 months; XL-STAT-LIFE software for statistic characterization and Kaplan-Meier survival analysis.
Results: From 605 HIV patients 279 died, 255 are living and 71 are censored. The moment of HIV infection was uncertain for most patients. The mean survival time from HIV diagnostic data was 84.82 months (CI [78.71; 90.95]) with the higher risk of death on 23-24 months. Median surviving time was significantly higher on TG (96 months) vs. NTG (24 months): OR=32.12; CI [21.69-48.91]; p<0.001. The survival probability for 120 months after HIV diagnostic was 0.41 NTG vs. 0.59 TG and the difference increase for 228 months from 0.10 NTG to 0.24 TG. First line therapy was mono/ bi-therapy with INRT (63 patients) or HAART with either INNRT (91) or PI (123). The influence of HAART on surviving time is meaningfully on HIV patients diagnosed before 1998 (OR 74.215; CI [39.52-139.36]; p<0.001), but the median time until the death was shorter after 1998 (12 months vs. 24 months). Surviving time was improved by HAART to 147 months (CI [137-158]; p<0.001) but no influence of sex, AIDS stage or type of HAART (INNRT/PI) were found. The durability of the first line HAART was 28 months on INNRT vs. 25 months on PI, but without statistical significance. 150 HIV patients who received HAART as first line at least 12 months are living at the end of the study. The features of the end-point living patients are: median age 21 years old; sex ratio M/F 1.1; AIDS stage at the diagnostic time 82%; HBV co-infection

39%, previous or current TB co-infection 33%, lipodistrophy 61%, median CD4 542/mm3; median time of antiretroviral treatment 72 months with

Conclusions: 1. HAART significantly improved surviving time of HIV patients on 228 months after diagnostic. 2. Durability of the first HAART line was similar for combination with INNRT (28 months) and PI (25 months). 3. Multi-experience on antiretroviral and the complex co-morbidities are new challenges for the treatment of survived HIV patients.

manuela.arbune@ugal.ro
Contact Phone: +40-0742064593

PE1.2/5

The efficiency of the antiretroviral treatment (ARVT) in patients infected with HIV

Svetlana Popovici[1], Angela Nagit[2], Lucia Luca[3]
Republican Dermatovenerological Dispensary Moldova[1 2 3]

Objective: assess the efficiency of the ARV treatment in patients infected with HIV who had the level of CD4 <10 cells/mm3 at the time of the ARVT initiation.
Methods: The research sample comprised 18 patients with HIV, who had the level of CD4 <10 cells/mm3 at the time of the ARVT initiation. The patients were examined through clinical, immunological (CD4) and virologic (PCR ARN HIV) methods before the treatment initiation and in the course of rendering the therapy.
Results: 18 patients infected with HIV with the level of CD4 <10 cells/mm3 at the time of the ARVT initiation were supervised. Prior the ARV treatment, the average value of CD4 in those patients was 4.5 cells/mm3. All patients had clinical and immunological indications for the ARV therapy initiation, while 56% had virologic indications as well.
During the first month of therapy three patients died, while 15 continued the ARV treatment, and average value of CD4 in those patients was 30 cells/mm3.
In the course of the next three months, two more patients died, but the other 13 who continued the ARV therapy had the average value of CD4 equal to 68.3 cells/mm3.
Seven months later after the initiation of the ARV treatment, the average value of CD4 was 94.4 cells/mm3, while the plasmatic level of the RNA HIV became undetectable.
Ten months later after the initiation of the ARV treatment, the average value of CD4 was 176 cells/mm3, and the plasmatic level of the RNA HIV remained undetectable.
Since the patients started the treatment at different periods of time, only one patient reached three years of treatment at this time; his level CD4, cells was 2 at the beginning of the therapy, while currently this indicator is 316 cells/mm3, and the viral load is undetectable. The other 12 patients continue successfully the ARV treatment on the same pace.
Conclusions: Although it is not advisable and timely, the treatment can be initiated even at very low levels of CD4 cells. There are real chances to rehabilitate the immunity system in extremely poor condition of patients with HIV, and everybody in need must be offered such chances.

svet.popovich@rambler.ru
Contact Phone: +37322794103

PE1.2/6

HIV genotypic resistance testing in routine clinical practice in Georgia

Tengiz Tsertsvadze[1], Nikoloz Chkhartishvili[2], Natia Dvali[3], Nino Gochitashvili[4], Lali Sharavdze[5], Marine Karchava[6]
Infectious Diseases, AIDS and Clinical Immunology Research Center Georgia[1 2 3 4 5 6]

Background: Since 2004 Georgia, one of the first among former Soviet Union (FSU) countries, ensured universal access to antiretroviral therapy (ART) through the Global Fund support. Along with scale-up of ART program, local laboratory capacity was strengthened for the comprehensive treatment monitoring. The standard of HIV care in the country relies on laboratory monitoring of immune system using CD4 counts, viral suppression by measuring viral load (VL) and development of resistance with HIV drug resistance (HIVDR) test. Recently we started HIVDR testing of newly diagnosed patients to guide selection of initial regimen. We report on successful application HIVDR testing in routine clinical practice in Georgia.
Methods: ART in Georgia is provided as per national HIV guidelines based on clinical and laboratory indications. The ART consists of 2 Nucleoside Reverse Transcriptase Inhibitors (NRTI) plus 1 Non-Nucleoside Reverse Transcriptase Inhibitor (NNRTI) or 1 Protease Inhibitor (PI). Monitoring of patients relies on CD4 count (MultiTEST CD3/CD8/CD45/CD4, Becton Dickinson, USA) and VL (COBAS TaqMan HIV-1 test, Roche, Germany), which are measured three times a year. HIV genotypic resistance testing (TruGene HIV-1 genotyping kit, Bayer Healthcare, USA) is performed in case of suspected virological failure.
Results: From 2004 to 2008, 47 patients experienced virologic failure on initial regimen. Plasma specimens of 45 patients with VL ≥1,000 copies/mL were genotyped and tested for resistance while on failing regimen. Among these 45 patients 73.3% were males, the mean age was 33.7 and predominant exposure risk category was injection drug us (IDU) - 57.8%, most frequently prescribed regimen was ZDV + 3TC + EFV (44%). Median time to virologic failure was 15 months (IQR 10-19). VL was <10,000 in 28.9% of patients, while overall 84.4% had VL <100,000 at the time of virologic failure. Thirty-four (75.5%) patients had at least one resistant mutation. Dual-class drug resistance was found in 30 (66.7%) patients. One (2.2%) patient carried triple-class resistance mutations. Median number of resistant mutations was 2 (IQR 1-3). Most commonly detected NRTI mutation was M184V/I (68.9%). G190S/A was the most frequent NNRTI mutation (42.2%), followed by K103N (28.9%). The frequency of thymidine analogue mutations (TAM) was relatively low, with only 10 (22.2%) patients having any TAM. Only three (6.7%) had ≥3 TAMs.
Conclusions: Routine monitoring of viral load allowed for early identification of patients failing on HAART, thus reducing the opportunity for mutations to accumulate. Overall small number of mutations and low frequency of TAMs is suggestive of shorter exposure to failing regimens. Routine use of VL and HIVDR in countries expanding treatment access is essential for sustaining benefits of ART and should become part of the strategy to combat HIV drug resistance.

aids@gol.ge
Contact Phone: +995 32 399922

PE1.2/7

Molecular monitoring of HIV-1 epidemic and drug resistance in Krasnoyarsk region, Russia

Olga A. Rumyantseva[1], Igor A. Olkhovskiy[2], Marina A. Malysheva[3], Marina R. Bobkova[4], Vladimir V. Lukashov[5]
Krasnoyarsk Regional AIDS Center, Krasnoyarsk Russian Federation[1 2 3], D.I.Ivanovsky Institute of Virology, Moscow Russian Federation[4], Academic Medical Center, University of Amsterdam, Amsterdam Netherlands[5]

The explosive HIV-1 epidemic in Krasnoyarsk region had started in 1999-2000, and since then the total number of HIV-1 infected individuals has reached 9,581, which is among the 20 most affected regions of Russia (331 HIV-1 infected individuals per 100,000 inhabitants). The characteristics of the HIV-1 epidemic in Krasnoyarsk region are similar to those in other regions of Russia, with >75% of infected individuals being <30 years old, and most being IDUs.

Our molecular epidemiological data show that HIV-1 epidemic in Krasnoyarsk region is dominated by HIV-1 subtype A strains specific for the majority of HIV-1 cases in Russia and Eastern Europe in general (IDU-A strains).
Since 2004-2006, HAART is used in Krasnoyarsk region to treat HIV-1 infected individuals. To monitor the effectiveness of HAART and possible development of drug-resistant HIV-1 mutants, in our center we applied a clinical-diagnostic system, which is based on ViroSeq sequence analysis (Abbott). Specific attention is given to HIV-1 infected individuals failing their HAART regimens (and therefore requiring optimization of their therapy) and newly infected individuals (to monitor possible transmissions of drug-resistant HIV-1 mutants).
Among the 27 therapy-naïve individuals, 26 did not have drug-resistant mutations. Yet, in the majority of these individuals mutations that do not cause resistance themselves but have been shown to be associated with drug-resistant mutations, were identified. In particular, 19/27 individuals had a A62V mutation in reverse transcriptase gene (as well as 27/31 patients under HAART). HIV-1 strains with this mutation are dominating in Russia. One therapy-naïve individual had a K103N mutation (resistance to NNRTI).
This K103N mutation was the most prevalent drug-resistant mutation among patients receiving HAART, 10/31 studied individuals had this mutation. A number of other drug-resistant mutation have been identified in 18/31 individuals – however, 13/31 patients under HAART with detectable virus load did not have any known drug-resistant mutation. This observation points to the need of increasing therapy compliance in individuals under HAART.
v.lukashov@amc.uva.nl Contact Phone: +7 913 528 87 17

PE1.2/8
HIV-1 unspliced RNA levels in PBMC from HAART-receiving patients with undetectable plasma viral loads are predictive of the outcome of therapy
Alexander O. Pasternak[1], Margreet Bakker[2], Suzanne Jurriaans[3], Ben Berkhout[4], Vladimir V. Lukashov[5]
Academic Medical Center, University of Amsterdam Netherlands[1 2 3 4 5]

The effectiveness of HAART is assessed by measuring the viral RNA load in plasma. A patient is considered to be successfully treated when the HIV-1 load in plasma stays below the detection limit of commercial assays. However, virus replication and evolution continue in patients under HAART, which may eventually result in the development of drug-resistant HIV-1 strains and therapy failure. No laboratory markers have yet been identified that are predictive of the outcome of therapy during the period when plasma viral load is undetectable. The objectives of this study were to establish the role and predictive value of cellular virus reservoirs in defining the virological outcome of HAART, by studying the relationship between the levels of HIV-1 RNA and DNA in peripheral blood mononuclear cells (PBMC) and HAART failure.
To measure intracellular HIV-1 levels, we developed highly sensitive seminested real-time (RT-)PCR methods based on TaqMan chemistry (Pasternak et al., J. Clin. Microbiol., 2008; 46(7): 2206-11). Initially, we assessed the longitudinal trends of HIV-1 RNA load in plasma, intracellular HIV-1 RNA and DNA, and CD4+ T cell counts, in 11 patients without therapy (52 patient-years; median follow-up time, 3.46 (2.36-6.72) years). No significant longitudinal changes in the levels of plasma RNA and multiply spliced (ms) RNA has been observed in 82% and 89% of the patients, respectively, while unspliced (us) RNA and proviral (pr) DNA loads were significantly growing with time in 70% and 50% of the patients, respectively, and CD4+ T cell counts were significantly decreasing in 64%.
Subsequently, we assessed the levels of us and msRNA and prDNA in PBMC in 26 HAART-treated patients (80 patient-years) who were either successfully treated (n=11) or failing on therapy (n=15). The median follow-up time for successfully treated patients was 3.65 (3.13-4.73) years, while for failures, the median time to failure was 1.85 (1.40-2.71) years. Samples were taken at multiple time points during the period of undetectable plasma viral load (< 50 copies / ml plasma). Patient groups were matched by the plasma RNA loads at baseline. prDNA and usRNA were detected in more than 90% of the PBMC samples with undetectable plasma viral loads, whereas msRNA was detected only in 16%. During the period of undetectable plasma viral load, levels of prDNA were decreasing with time in both patient groups, CD4+ T cell counts were increasing, and no longitudinal trend has been observed in usRNA levels. No significant difference between the patient groups in any of the parameters studied has been observed at baseline. However, median level of usRNA in PBMC from the period of undetectable plasma viral load was significantly higher in future HAART failures than in successfully treated patients ($P < 0.001$), while no significant differences between the patient groups have been observed in prDNA levels and CD4+ T cell counts.
Our results indicate that HIV-1 intracellular unspliced RNA level is an important laboratory marker that could aid in monitoring the course of HAART and facilitate the early detection of drug-resistant escape mutants before the actual failure of the therapy.
a.o.pasternak@amc.uva.nlContact Phone: +31205665861

PE1.2/9
Evolution of compliance in a cohort of adolescents and young adults
Claudia Simona Cambrea[1], Sorin Rugina[2], Maria Margareta Ilie[3], Ioana Cretu-Stancu[4], Luiza Popa[5]
Infectious Diseases Clinic, Faculty of Medicine, Romania[1 2], Children Infectious Diseases Department, Clinical Infectious Diseases Hospital Constanta Romania[3 4], Baylor Black Sea Foundation, Constanta Romania, Romania[5]

Background: to treatment in chronic diseases is essential for long term success. In HIV positive patients treated for a long period of time with antiretroviral drugs adherence issues is one of the most important aspects that can affect evolution and survival of these patients. HIV+ children long term treated with antiretrovirals when became were less adherent that before.
Objective: Evaluate evolution of adherence to ARV treatment in a cohort of HIV+ adolescents and young adults.

Material and method: We performed a comparative retrospective study about adherence in a cohort of 69 HIV+ adolescents and young adults. All of them were infected with HIV in their childhood. In order to appreciate adherence we apply a questionnaire and also we take into consideration some paraclinical data as CD4 count and HIV viral load. In patients with poor adherence we perform medical and psychological counseling.
Results: We evaluate adherence in a cohort of 69 HIV + adolescents in a period of 5 years. When we perform first evaluation in year 2004 median age of patients was 15.7 years old and after 5 years, in 2008, median age was 20.9 years old. At first determination we found compliance of 72.45% and after 5 years compliance decreased at 49.63%. All these patients at the second evaluation of compliance received antiretroviral treatment for a period of minimum 8 years. At first determination decreased compliance was related with poor knowledge about their diseases and diagnosis. At the second determination decreased compliance is related with social activities that can interfere with their life style and fear of disclosure of HIV+ diagnosis to their colleagues or friends or with side effects as lypodistrophy.

Conclusions: During adolescence compliance to antiretroviral treatment decreased. In order to maintain a good compliance these patients needs an important psychological support in addition of medical care and family support.
claudia_cambrea@yahoo.com
Contact Phone: +40 723 472 844

PE1.2/10
Radata
Thore Lorenzen[1], Irene Walther[2], Daniela Baehr[3], Albrecht Stoehr[4], Andreas Plettenberg[5]
ifi-Institut for Interdisciplinary Medicine Germany[1 2 3 4 5]

Background: Therapy of HIV-infection is a complex area which needs regular surveillance during the hole course of disease. Especially in case of therapeutic failure many information`s are essential to optimise antiretroviral therapy (ART). The Radata-system considers these aspects by compiling all necessary information`s of a patient in a database. A further option is the possibility to obtain expert advice to support therapeutic decisions based on these information`s.
Methods: Patients may be included in the system while they are in need of a new ART due to any reason. Radata collects data concerning medical history, immunological and virological parameters, prior ART regimens and special features of the patient (e.g. gravidity). Depending on physicians choice, results of resistance analyses (RA) and/ or therapeutic drugmonitoring (TDM) may be entered. Patients have the possibility to complete a self report questionnaire regarding their former adherence and special requests to future ART. Experts may review the data online and perform therapeutic recommendations. After ART switch a regular follow up is scheduled every three months. All data entries are directly entered online into the database.
Results: So far, 816 cases from 101 centers have been included in the Radata-system.
888 RA and 708 TDM are available. For 695 patients expert recommendations have been performed and 648 ART-switches are documented. To date, median observation time for all patients is 24 months, maximum 81 months. Median number of ART regimens prior to recruitment was 6, time since first ART initiation was 84 months. Patients had in median 5 reverse transcriptase and 3 protease resistance mutations. Experts recommended in median 3 antiretroviral substances (Ritonavir booster excluded) and physicians utilised recommendations in most cases. Follow up data show a median decrease of viral load by 0.6 log10 after 12 months and 1.1 log10 after 24 months. CD4 cells increased by 32c/µl and 37c/µl after one and two years respectively.

Conclusion: The Radata-system was initiated as a cohort to improve the treatment of HIV-infected patients by collecting comprehensive data about individuals and provide them for expert recommendations. The hole system is conducted online via internet. Patients included are long term observed and expert advice leads to a slight improve of immunological and virological parameters.
lorenzen@ifi-infektiologie.de
Contact Phone: 0049401818853780

PE1.2/11
TMC125 in Combination With Medications Commonly Used in HIV Infection: Summary of Drug-Drug Interactions
Gilles Peytavin[1], Maria Blanca Hadacek[2], Monika Peeters[3], Brian Woodfall[4], Manyu Prakash[5], Monika Scholler-Gyure[6], Thomas Kakuda[7], Richard Hoetelmans[8]
Hopital Bichat-Claude Bernard France[1], Janssen-Cilag France[2], Tibotec BVBA Belgium[3 4 5 6 7],Tibotec Inc, Yardley, PA, USA[8]

Background
TMC125 is a next-generation NNRTI . A summary of the pharmacokinetic interactions between TMC125 and medications used in HIV-infected patients is presented.

Methods
PK studies were conducted at steady-state in healthy volunteers. Two-way interaction studies were conducted with TMC125 and drugs from all classes of antiretrovirals, including maraviroc (MVC), raltegravir (RAL) and elvitegravir/r (EVG/r) and non-ARVs including clarithromycin (CLAR), rifabutin and atorvastatin. The one-way effect of omeprazole (OME) and ranitidine (RAN) on TMC125, and the one-way effect of TMC125 on fosAPV/r, LPV/SQV/r, methadone (MET), sildenafil (SIL), and estrogen-based oral contraceptive (OC) were also studied.

Results
TMC125 increases exposure to APV 69% and decreases exposure to SIL 57%. TMC125 decreases the exposure to parent CLAR and atorvastatin but increases the active metabolite. TMC125 had no significant effect on: ddI, DRV/ r, LPV/r, SQV/r, TDF, TPV/r. or non-ARVs: MET, rifabutin and OC. TPV/r decreased TMC125 exposure by 76%. No relevant changes in TMC125 exposure were observed when combined with ddI, TDF, FPV/r or RAN. TMC125 exposure decreased 37% and increased by 41% in combination with DRV/r and OME, respectively; these changes were not considered clinically relevant. TMC125 decreased exposure to MVC by 53%, and increased exposure to MVC by 4-fold when combined with TMC125 and DRV/r. Minimal changes in exposure in TMC125 were observed when combined with RAL or EVG/r. TMC125 PK were comparable to historical controls when co-administered with FosAPV/r, LPV/SQV/r, MET, or SIL.

Conclusions
TMC125 can be combined with most of the drugs studied without dosage adjustment. Dose adjustments may be required for FPV/r and SIL. Dose adjustments are recommended for MVC. It is not recommended to combine TMC125 with TPV/r. Drug interactions between TMC125 and medications commonly used in HIV therapy are well characterised and manageable.

PE1.2/12
Accessibility of antiretroviral therapy (ART) for injecting drug users in Lithuania
Čaplinskas S.[1 2], Uždavinienė V.[1], Kančauskienė Ž.[3], Matulionytė R.[4], Kaušas A.[5], Kanišauskienė V.[6]
Lietuvos AIDS centras[1], Mykolas Romeris University[2], Klaipėdos universiteto ligoninė[3], Respublikinė tuberkuliozės ir infekcinių ligų universitetinė ligoninė[4], Šiaulių apskrities ligoninė[5], Kauno II klinikinė ligoninė[6]

Background: Antiretroviral therapy (ART) is one of interventions for preventing HIV transmission through intravenous drug use (IDU). During HIV registration period (1988–2008) in Lithuania, there were 1,401 HIV positive cases identified. The main HIV transmission mode is IDU – 73.3%. As in majority of IDUs HIV infection is diagnosed on the early stage of disease (average CD4 count 801/mm^3) in Lithuania, so needs of ART for IDUs emerged only in few last years. Objective of this retrospective study is to evaluate accessibility of ART for IDU in Lithuania.
Methods: National HIV/AIDS data system was analyzed. ART availability, coverage and quality indicators and potential impact indicator were evaluated.
Results: Availability: National guidelines of the ART were endorsed by the Ministry of Health in 2004. These guidelines ensure universal access to ARV treatment, including vulnerable population such as IDUs: there are no exclusion criteria for IDUs. ART is available in clinics of the biggest cities: Vilnius, Kaunas, Klaipeda, Siauliai. ART is fully compensated from the Compulsory Health Insurance Fund for all patients with HIV infection.
Coverage: ART of IDUs has been initiated in 2004. In 2004-2008 ratio of IDUs receiving ART (ratio % of ART in IDU and % of HIV attributed to IDU) has gradually increased: from 15 per cent in 2004, 38 per cent in 2006, up to 60 per cent in 2008.
Quality: National guidelines of ART only partially adhere to WHO protocols (on ART initiation in case of asymptomatic HIV infection).
Impact indicator: Despite the increase in number of patients on ARV, in 2006 rate of AIDS cases in IDUs has significally augmented (5 cases of AIDS were reported in 2004, 7 – in 2005, 17 – in 2006, 21 – in 2007, and 36 – in 2008). Percentage of AIDS deaths in HIV infected IDUs has increased from 0.1 % in 2004 up to 0.9% in 2008.
Conclusion: Accessibility of ART for IDUs has annually improved. This had not any positive effect on AIDS morbidity and mortality in IDUs. Complex prevention, treatment and care interventions should be reinforced to improve morbidity and mortality among HIV positive IDUs. Input of NGOs could be more intense to assure the timely applying of the IDUs for medical help.
Contact information: vilma@aids.lt

1.3 Co-infections

PE1.3/1
Prevalence of HIV and viral hepatitis among the registered drug users in the Republic of Belarus
Hanna Vinitskaya[1], Vladimir Lelevich[2], Jury Razvodovsky[3]
Grodno State Medical University Belarus[1 2 3]
In Belarus, the Narcological Service is a network of specialized outpatient and inpatient medical units in the healthcare system that provides treatment to alcohol and drug users. The Narcological Service in Belarus maintains the Narcological Register of known persons who are kept under observation owing to drug abuse and/or addiction. Reasons for including a person on the Narcological Register (NR) may be the result of an individual's visit to a doctor; by a request from relatives, police, medical institutions, employers, educational institutions or military service commissions; or the result of inspections for juvenile offenders. According to the Ministry of Health, 10,467 people were registered as non-addicted drug users or addicts on the NR by January 1, 2008. Out of them, 6,695 (64.0%) were injecting drug users (IDUs). In Belarus all drug users listed at the NR undergo a compulsory test for HIV, antiHCV and HBsAg, irrespective of the method of drug consumption.
The aim of the study was to estimate the rate of the HIV, HCV and HBV prevalence among the registered drug users who were under medical surveillance by the beginning of 2008.
From 2005-2007, narcological institutions in Belarus registered 574 drug users infected with HIV, HСV and HВV, or combinations of these infections. This constitutes 7.2% of all registered over these years (a total of 6,182 persons). 484 of these cases (84.3%) used drugs intravenously and 419 (72.9%) were users of opioid-based drugs. The most commonly found infecting agent was viral hepatitis C (269 cases – 46.9%) and HIV (179 cases – 31.2%). While the least common was viral hepatitis В (21 cases – 3.7%). Registered drug users also showed cases of combined infections: HIV and HСV (41 cases  7.1%); HIV and HВV (1 case  0.2%); and HСV and HВV (18 cases – 3.1%). Two registered drug users were infected with three infections (HIV, HСV and HВV). In the remaining cases, registration cards did not indicate the type of hepatitis.
Therefore, the data suggest approximately low level of the blood-borne diseases spread among the registered drug users in Belarus. The cases of the viral hepatitis C and HIV infections prevailed among infected persons on the NR. The majority of them were IDUs.
narcology@grsmu.by

PE1.3/2
THE IMPACT OF CANCER ON SURVIVAL AFTER AIDS IN ITALY, IN THE POST-HAART ERA
Diego Serraino[1], Antonella Zucchetto[2], Barbara Suligoi[3], Silvia Bruzzone[4], Giovanni Rezza[5], Luigino Dal Maso[6], Laura Camoni[7], Angela De Paoli[8], Stefano Boros[9], Lucia Fratino[10]
IRCCS Centro Rif. Oncologico, Aviano Italy[1 2], Nat. Inst. of Health, Rome Italy[3 5 6 7 8 9 10], Nat. Inst. of Statistics, Italy[3]

Background: To provide survival estimates of Italian people with AIDS (PWA) in the HAART era, to identify prognostic factors at diagnosis and illnesses present at death.

Methods: Longitudinal study with all cause mortality as end-point. The vital status and illnesses present at death of the 9662 Italian PWA diagnosed from 1999 to 2005 were evaluated through a record linkage with the Italian Mortality Database – covering all deaths from 1999 to 2006. The survival probability was estimated through Kaplan-Meyer, while hazard ratios (HR) were computed to identify prognostic factors.
Results: 80.6% of PWA survived one year, 75.3% two years and 66.6% five years. Elevated death risks emerged among intravenous older individuals, drug users, and those with a CD4+ cell count <200. The presence of non-Hodgkin lymphoma at AIDS was the strongest negative prognostic factors (HR=7.4, for primary brain lymphoma). At death, the frequency of non AIDS-defining illnesses increased from 38.6% in 1999 to 57.0% in 2006, with non-AIDS-defining cancers rising from 3.6% to 8.7%.
Conclusions: This study documented the increased survival of Italian PWA in the HAART era, the persisting negative impact of NHL on survival, and the increasing frequency of non-AIDS-defining illnesses at death.
epidemiology@cro.it
Contact Phone: +39 0434 659232

PE1.3/3
Prevalence of latent tuberculosis and risk factors among injecting drug users in Estonia and Latvia
Kristi Ruutel[1], Anda Karnite[2], Inga Brokere[3], Ave Talu[4], Katri Abel-Ollo[5], Gunta Kirvelaite[6], Anneli Uuskula[7]
National Institute for Health Development Estonia[1 4 5], Public Health Agency Latvia[2 3], State Agency of Tuberculosis and Lung Diseases, Latvia[6], University of Tartu, Estonia[7]

Background. Tuberculosis (TB) is a growing concern in many countries with high HIV-prevalence. In addition to HIV-infection, injecting drug users (IDU) are at increased risk of developing TB. Worldwide, TB is a rapidly growing problem among injecting drug users (IDU), especially those infected with human immunodeficiency virus. TB incidence is higher among IDUs than in the general population and this increase in incidence is independent of their HIV status. HIV-infected IDUs are particularly susceptible to TB. In 2007 TB notification rate was 34.7/100,000 in Estonia and 49.0/100,000 in Latvia. Both countries have witnessed massive HIV outbreaks among IDUs in recent years. In 2007 the proportion of HIV-positive patients among all TB cases was 10.5% in Estonia and 4.5% in Latvia. Little is known about TB among IDUs in the region.
The purpose of the study was to estimate the prevalence and risk factors of latent TB among IDUs in Estonia and Latvia.
Methods. An anonymous cross-sectional study was conducted in 2007 in Estonia in two sites (capital city Tallinn and Kohtla-Järve, a city in North Eastern part of the country) and in Latvia in one site (capital city Riga). Current IDUs were recruited from non-treatment settings (syringe exchange programs) for an interviewer-administered risk behavior survey (covering demographics, drug use history, TB history), and venous blood sample collection. Participants were tested for HIV antibodies (Vironostika HIV Ag-Ab Combo), and M. tuberculosis specific interferon-gamma (QuantiFERON-TB Gold, Cellestis Europe©).
Results. The number of participants was 375 in Estonia and 387 in Latvia. The proportion of men was 84.8% (95% CI 81.2–88.4) in Estonia and 70.3% (95% CI 65.5–74.6) in Latvia. The proportion of participants older than 30 years was 26.1% (95% CI 21.7–30.6) in Estonia and 41.1% (95% CI 36.3–46.1) in Latvia. The proportion of participants with duration of IDU≥6 years was 73.3% (95% CI 68.8–77.8) in Estonia and 68.8% (95% CI 63.9–73.2) in Latvia. 1.9% (95% CI 0.4–3.2) of participants in Estonia and 7.2% (95% CI 5.1–10.3) in Latvia had ever been diagnosed with TB. 21.8% (95% CI 17.3–26.2) in Estonia and 33.6% (95% CI 29.1–38.4) in Latvia reported contacts with TB patients. 10.9% (95% CI 7.8–14.1) in Estonia and 43.2% (95% CI 38.3–41.1) in Latvia had had cough more than 2 weeks, and/or blood in sputum. The proportion of participants tested positive for HIV antibodies was 61.5% (95% CI 56.5–66.5) in Estonia and 22.7% (95% CI 18.8–27.2) in Latvia. The proportion of participants tested positive for M. tuberculosis specific interferon-gamma was 7.7% (95% CI 5.0–10.4) in Estonia and 23.0% (95% CI 19.1–27.4) in Latvia. In Estonia the prevalence of latent TB among HIV-positive participants was 9.0% and among HIV-negative participants 6.5% (p=0.4). In Latvia the prevalence of latent TB among HIV positive respondents was 17.4% and among HIV negative – 23.2% (p=0.2).
In multiple regression analysis the factors independently associated with latent TB infection were:
- In Estonia – age (≥ 30 years), nationality (Estonian), and having been diagnosed with TB in the past.
- In Latvia – age (≥ 30 years), duration of IDU (≥ 6 years), having been imprisoned, known contact with TB patient, having been diagnosed with TB in the past, and having TB related symptoms (cough more than 2 weeks, blood in sputum).
Conclusions. The prevalence of potential concomitant infection with HIV and TB is high among IDUs in both countries. Implementation of targeted and active TB control system among IDUs is great importance and urgency.
kristi.ryytel@mail.ee
Contact Phone: +3756593980

PE1.3/4
Assessment of Drug Addiction Treatment in Georgia
Khatuna Todadze, Research Institute on Addiction, Georgia

Background. Since 1990s, there has been a sharp growth in non-medical use of drugs in Georgia. According to expert's estimation, the number of different substance users is 200000-240000, the number of injecting drug users (IDUs) exceeds 80000, including 30000-35000 people with drug dependences. A special problem is injection of opioid group substances, particularly heroin and Subutex.

Even Georgia is low HIV/AIDS prevalence country today, there are still several factors posing a high risk of growing spread of HIV/AIDS: 1) high number of IDUs; 2) 60% of all registered HIV+ persons are infected through drug-related risky behaviors 3) hepatitis C prevalence exceeding 70% versus 1-2% of HIV prevalence among IDUs.
Until 2005, abstinence-oriented treatment of opioid dependence was the only method used in Georgia. Since 2006 opiate substitution treatment (OST) programs using methadone has been implementing. By 2009 12 OST programs are operating in Tbilisi and 6 regions, including pilot prison program. The aim of the study was assessment of effectiveness of different treatment methods and evaluation of attitudes of IDUs, their family members and doctors toward them.
Methods. 60 opioid dependent persons receiving OST were studied at the Research Institute on Addiction, Tbilisi. Level of depression (Beck Depression Inventory), anxiety

(Spilberger Anxiety Inventory), quality of life (questionnaire recommended by WHO) were measured before starting MST, and after 3, 6 and 12 months. The illegal use of psychotropic-narcotic substances was checked through random urine-testing 3 time per-patient per-month.
Quantitative studies with specially elaborated and pre-tested questioners have been conducted in 1)200-IDUs (82-recruited by peers, 65-OST program patients, 53-patients undergoing detoxification or post-detoxification psychosocial rehabilitation); 2)100-drug users' family members and 3)50-narcologists.
Results. The study showed the significant improvement of patient's psycho-social state. The decrease of depression and anxiety was observed (dynamic of average scores of depression was 25-16-13-13; for anxiety: 49-40-40-41). Life quality significantly increased in comparison with the starting data (69-84-91-85). The positive answers on psychotropic-narcotics were observed in 5-6 people per month in average.
Survey revealed that patients', family members' and doctors' opinions differ from each other. For patients OST is the most efficient and humane method, whereas physicians believe that the most efficient and humane is inpatient detoxification with further rehabilitation. Patients' family members consider OST to be the most efficient one and inpatient detoxification to be the most humane.
The drug users and family members consider so-called 'coding' as the second most efficient method of addiction treatment. Physicians also believe in this method to be rather effective. However, all three groups consider it as less humane.

Conclusions. Study showed high effectiveness of OST in treatment and harm reduction. Improvement of life quality is more important goal of treatment for IDUs whereas full abstinent state is priority for doctors and family members.
Strengthening of effective cooperation between IDUs, their family members and professionals is important to better understand each-others demands and attitudes to reach more positive result during treatment and rehabilitation.
Wide range of drug addiction treatment methods must be implemented to give the choice to patients.
khatuna.todadze@undp.org.ge
Contact Phone: +99599103009

PE1.3/5
Employment in the addiction treatment and recovery process: mode specific barriers to labour market participation
Lindsey Richardson[1], Evan Wood[2], Thomas Kerr[3]
British Columbia Centre for Excellence in HIV/AIDS, Vancouver[1,3], Department of Medicine, University of British Columbia, Vancouver, Canada[2,3], Department of Sociology and Nuffield College, University of Oxford, Oxford, UK[1,3]

Background: Employment is commonly upheld as an important outcome indicator in the context of addiction treatment and recovery. Previous studies demonstrate associations between employment and longer term abstinence, lower rates of substance use relapse and longer and more comprehensive treatment enrolment, although results are inconsistent across studies. Further, there have been few longitudinal investigations of the impact of addiction treatment on employment among injection drug users (IDU).
Methods: Using longitudinal data from the Vancouver Injection Drug Users' Study (Vancouver, Canada) we conducted a discrete time event history analysis (i.e. survival analysis) to determine if addiction treatment enrolment positively predicts a transition out of employment into employment, controlling for socio-demographic characteristics, drug use, HIV and hepatitis C (HCV) serostatus.
Results: In an initial analysis, results indicate enrolment in any kind of addiction treatment was significantly and negatively associated with a transition into employment (adjusted odds ratio [AOR]=0.77, 95% confidence interval [CI]: 0.63-0.94). Subsequent analysis that separates out MMT from other forms of treatment shows that while non-MMT forms of treatment have a positive and significant association with employment transitions (AOR=1.31, 95% CI: 1.02-1.68), MMT has a significant and highly negative association with movement into a regular job (AOR=0.50, 95% CI: 0.37-0.66).
Conclusions: Our findings appear to contradict the underlying assumption that re-engagement in the labour market can be expected to follow successful addiction treatment. We found that within the study population, when a distinction was made between different treatment modalities, it became clear that the impact of treatment on employment outcomes for IDU is contingent on the type of treatment: non-MMT forms of treatment increase the odds of initiating participation in the labour market, while MMT has the inverse effect. As this result is not consistent with past evaluations we postulate that mode-specific differences may be the result of factors related to the characteristics of MMT and programmatic barriers in this setting that impact the capacity of IDU to enter into employment. These findings underscore the continued need to evaluate the impact of treatment design on the social and economic activity of IDU in order to minimize programmatic barriers and facilitate positive treatment outcomes.
lindsey.a.richardson@gmail.com
Contact Phone: +44 7961 288 831

PE1.3/6
Beyond INH: New classes of drug development for the treatment of multi-drug resistant tuberculosis (MDR-TB) and extensively drug resistant tuberculosis (XDR-TB) infections and global vulnerabilities of HIV+ drug users is a determining consideration f
David Miller[1], Richard Scott[2], Mariel Selbovitz[3], Jeannie Gibbs[4], Gerald Zive[5], Chris Norwood[6]
New York State AIDS Institute United States[1], PolyMedix, Inc. United States[2], United States[3,4], Zive Pharmacy United States, United States[5], Health People United States[6]

Background: Addressing TB/HIV co-infection among drug users was a key theme of the 2008 International AIDS Society Conference. Two months later, world leaders at the Global Leaders' Forum called for the drastic reduce the number of deaths associated with these co-morbidities by 2015. The rise of MDR-/XDR-TB infections presents a formidable challenge to this endeavor; MDR-TB is present in all regions of the world3. MDR-TB is twice as prevalent in TB patients infected with HIV compared to TB patients without HIV4. The HIV epidemic in countries of the former Soviet Union is the fastest growing in the world, with upwards of 80% attributable to injection drug use (IDU) in Russian Federation5. Countries of the former Soviet Union have an exceptionally high prevalence of both MDR- and XDR-TB3. The adherence rates of active drug users to INH therapy are predictably poor1, significantly increasing their

risk of MDR-/XDR-TB infection. Defensin mimetics are a novel class of antibiotics that mimic host defense protein activity and display robust activity against TB.
Methods: Defensin mimetics are small non-peptidic analogues (MW < 1,000) that represent a novel class of therapeutics for the clinical treatment of MDR-/XRD-TB. Their mechanism of action is associated with rapid killing times and lower risk for the development of resistance. One lead compound, PMX30063, is being developed as an IV antibiotic to treat pan-Staphylococcal infections and is now in Phase 1 human clinical trials.
Results: Analogues spanning several structural series were screened by TAACF (Tuberculosis Antimicrobial Acquisition Facility, NIAID) using in vitro assays to measure susceptibilities against the H37Rv strain of M. tuberculosis and cytotoxicity against monkey VERO cells. Several compounds were highly active (IC90 < 5 uM) and greater with 30 to 120-fold selectivity. Results from mechanism of action studies investigating interactions with lipid membranes and bacterial membrane permeability indicate that the compounds interact preferentially with bacterial membranes without inducing widespread permeability and leakage of cellular contents.
Conclusions: Future efforts will be aimed at developing this promising series of compounds as effective ant-tubercular agents. The mechanism of action of these compounds indicates a lower risk of resistance development. The lengthiness and level of engagement in medical care demanded by available anti-TB therapies, in conjunction with very high ratios of presenting co-infections antecedent to or accompanying exposure to TB infection, such as HIV and HCV, renders HIV + drug users more vulnerable to developing drug-resistant strains of TB. Drug development for the treatment of all TB infection isolates must be prioritized and accommodating to adherence in order to prevent the development of MDR/XDR-TB epidemics in vulnerable populations. The sudden decline of epidemiological surveillance, treatment, care and research due to the recent economic crisis will predictably lead to increases in MDR-/XDR-TB infections and mortality among HIV+ individuals. It is urgent that TB Control Program introduces new treatment strategies to which active drug users can better adhere.

References:
1. Retrospective study of short-course anti-TB therapy in HIV-infected IVDUs, Santos, Brazil. Vitti Junior W, Souza Junior A, Carvalho AC, Vieira MA, Wemeck EB, Amado BP, Hayden RL, Souza PR, Kritski AL; International Conference on AIDS.
Int Conf AIDS. 1992 Jul 19-24; 8: 145 (abstract no. Pub 7577).
2. Antimicrobial Molecules for Treatment of Multi-drug Resistant (MDR) and Extensively Drug Resistant (XDR) Strains of Mycobacterium Tuberculosis. Scott, R., Liu, D., Clements, D., Selbovitz, M., Miller, D., Cruz, G., Mensa, B., and DeGrado, W.; Development of Antiretroviral Therapies Conference 2008. 9-12 December 2008.
3. Novel Antimicrobial Molecules for Treatment of Mycobacterium tuberculosis. Scott, R., Liu, D., Selbovitz, M., Miller, D., Cruz, G., Mensa, B., and DeGrado, W..; Keystone Symposia on Molecular and Cellular Biology. Tuberculosis: Biology, Pathology, and Therapy, 25-30 January 2009.
4. Anti-tuberculosis drug resistance in the world: Report No. 4. The World Health Organization/International Union Against Tuberculosis and Lung Disease Global Project on Anti-Tuberculosis Drug Resistance Surveillance. 2008.
5. Epidemiological Fact Sheet on HIV and AIDS 2008 Update: Russian Federation. World Health Organization, UNAIDS, and UNICEF. Accessed 10 February 2009 at http://www.who.int/hiv/countries/en/.
bioship09@yahoo.com
Contact Phone: +1 917 443 4092

PE1.3/7
Disease-specific electronic medical records (EMR) programming for improving treatment and care outcomes of HIV+ active drug users
Matt D'Alessandro[1], David Miller[2], Mariel Selbovitz[3], Jeannie Gibbs[4], Frank Maresca[5], Gerald Zive[6]
Medi-EMR United States[1], New York State AIDS Institute United States[2], United States[3 4 5], Zive Pharmacy US[6]

Background Historically, HIV infected active drug users have lower antiretroviral therapy treatment adherence rates and poorer health outcomes than their non-active drug using counterparts. Disease-specific electronic medical records (EMR) systems are equally beneficial to all HIV+ patients, regardless of drug use status. Results from a study of HIV patients in Spain showed that patients with adherence <90% using an EMR program had increased adherence 10% more than subjects using traditional care1. Continuity of care as people move from thru various health systems such as hospitals, clinics, substance abuse treatment centers, and harm reduction programs will predictably result in improved clinical health outcomes for patients and increased efficiency and reduced costs for providers2. Patients undergoing concurrent HIV treatment regimens and therapies for prevalent co-infections must administer daily multiple therapeutics, commonly antiretroviral therapy in conjunction with treatment for hepatitis C, tuberculosis, and opportunistic infections associated with immunodeficiencies. These patients require careful monitoring of clinical progression, drug interactions, adverse side effects, social factors, mental health, and nutritional status.

Methods . An EMR system designed specifically to address the challenges of treating and caring for HIV+ active drug users is being developed and deployed by Medi-EMR. Medi-EMR is a secure, central, web-based EMR system capable of tracking medical history, laboratory results, imaging results, current and prior medication and treatment history, nutritional status, and social service utilization data. Medi-EMR uses an Oracle database, Linux operating system, and Apache web server. The Medi-EMR system also allows service providers to transmit patient records to a different EMR system. The system is able to transmit information in HL7, XML, PDF, and CSV format. Medi-EMR compares patient medical records against quality of care standards and generates health maintenance and medication contraindication alerts that are sent to the patient's service providers.

Results. Existing EMR programs designed specifically for HIV+ individuals have been significantly associated with improved treatment adherence, decreased viral loads, and decreased access of acute care services. Implementation of the Medi-EMR system will predictably not only benefit participating patient health outcomes, but also the general population by reducing the need for patients to access expensive acute care interventions, increasing the productivity of medical providers4, increasing access to

clinical data3, increasing adherence rates in clinical trials, and improving quality of life indicators for participating patients.

Conclusions. Utilization of EMR systems designed specifically to facilitate care coordination of HIV+ active drug users shows significant clinical and financial benefits. Coordination of care through the centralization of clinical and public health intervention data for the 25% of HIV+ individuals who actively use drugs will predictably improve the health of HIV+ active drug users and subsequently reduce new HIV infections among this population.
EMRs have been shown to be a valuable tool in assessing systems of care, allowing for determination of the overlap of care, identifying patients lost to follow-up, and intermittently or not engaged at all3. EMRs allow quick assessment of charting levels of routine preventive health measures.
mdalessandro@mediemr.com
Contact Phone: +1 888 633 1367

1.4 Drug abuse treatment

PE1.4/1
Analysis of the results of Lithuanian AIDS centre's Psychosocial rehabilitation department for drug addicted
Saulius Čaplinskas [1 2], Linas Gasiliauskas [1], Kęstutis Dragūnevičius [1], Andrius Lošakevičius [1]
Lietuvos AIDS centras[1], Mykolas Romeris University[2]

Purpose: Evaluate Lithuanian AIDS centre's Psychosocial rehabilitation for drug addicted activity in 1993-2008 and assess it's impact on spread of HIV/AIDS and hepatitis infections.

Methods: Demographic data of clients was described. Survey of the in-patient and follow up clients of the rehabilitation department during 1993-2008 period was conducted. Intervention efficacy and after-care was evaluated following one year after finishing the rehabilitation course. Also, all the clients were tested on HIV/AIDS and hepatitis infections at the beginning and at the end of the course of the treatment. Economical and financial indicators of the rehabilitation assessed.

Results: Lithuanian AIDS centre's psychosocial rehabilitation department provide services for 14 clients at a time. The rehabilitation program is based on a drug addicted youth on probation treatment program (DAYTOP) adopted and designed for adult drug users. The data presented were gathered during longitudinal annual survey of the in-patient and former clients. During the 1993 – 2008 period 194 drug addicted persons entered the rehabilitation program. 98 (50,5%) of them successfully finished the course. 14 (7,2%) of them were in program at the moment of survey. 26 (13,4%) clients dropped out of the program, but ceased using drugs and adopted sociable life-style. Totally 138 (71,1%) out of 194 clients did not used drugs following one year after the rehabilitation course. Also, 120 (87%) of them maintained a job.
During the aforesaid period services were provided for 26 HIV infected clients (14 of the successfully finished the program), also 93,8% of the clients (n=182) had hepatitis C. Analysis of immunologic and virologic test results prior and after the rehabilitation showed improvement of biological indicators.
Economical and financial analysis shows, that average rehabilitation costs for one person per year – 23.000 Lt (about 6700 Eur), average annual budget of the rehabilitation department – 300.000 Lt (about 87.000 Eur). An average amount of money a drug addicted person needs a day – about 130 Lt (38 Eur), annual needs – up to 60.000 Lt (17.400 Eur). Considering that drug users are usually unemployed and socially uninsured these costs rely on state financing. The rehabilitation of one drug addicted person can save up to 37.000 Lt (10.700 Eur) per year. During the years of operating Lithuanian AIDS centre's Psychosocial rehabilitation department saved more that 14 million Lt (more than 4 million Eur) not considering the costs of HIV/AIDS spread.

Conclusions: Evaluation of the results of Lithuanian AIDS centre's Psychosocial rehabilitation department for drug addicted shows that rehabilitation program is effective and helps more than 70% of clients give up drug use and start sociable life. It is crucial for HIV and hepatitis infected drug users not only in the case of drug abuse but also in improving ones health, re-socialize and prevent the spread of infection. Economical analysis clearly shows that it is cost-efficient for the state to fund psychosocial rehabilitation programs to empower long term changes.
Contact information: nugaletojai@aids.lt

2.1 Dynamics of the HIV-Epidemic

PE2.1/1
Questionnaire for the assessment of functional health competencies in HIV prevention.
Gustavo Garcia[1], Jesus Gil Roales-Nieto[2], Nikolett Eisenbeck[3]
Universidad de Almeria Spain[1 2], Eotvos Lorand University Hungary[3]

With the intention to develop new behavioral applied technology in HIV prevention, the focus of this study was to identify the measurable properties internationality accepted in the construction of measurable scale of an instrument to evaluate functional competencies related to HIV transmission. From an inter-behavioral perspective, with a basis in the Biological Health Psychological Model and using Contingencial Analysis as an analytic system, there was a questionnaire designed consisting of 60 items, aimed at assessing functional competencies. These items represent examples of situations where HIV infection risk exists. The instrument was applied in two versions (in print and via Internet) to 238 participants; they were distributed in two groups of 119 participants each one. The results showed a high reliability in both samples ($\alpha = 0.877$ and $\alpha = 0.868$), with a high internal consistency, besides having a construct validity. With these results and considering that sexual behavior is a taboo's topic, we consider the possibility to continue using electronic resources. We believe that the anonymous status of the internet lets the participants express real behavior, this way we can get reliable data and clarify those factors that underlie sexual behavior. Finally it is convenient to emphasize the way the data collected fits the theoretical model used, this is possible to observe by the variation of percentage explained by the components analyzed with the factor analysis. We confirm the appropriateness of the model used in the explanation of risky sexual behavior.
gustavogarcia@sida-aids.org
Telephone: +34 691765826

PE2.1/2

RECENT HIV INFECTION AMONG PREGNANT WOMEN ATTENDING ANTENATAL CARE SERVICES IN SWAZILAND

Lara Tavoschi[1], Daniela Bernasconi[2], Vincenza Regine[3], Mariangela Raimondo[4], Claudio Galli[5], Mauro Almaviva[6], Hosea Sukati[7], Richard Walwema[8], Barbara Ensoli[9]
Istituto Superiore di Sanit Italy[1 2 3 4 9], Abbott Diagnostics Division Italy[5], University of Milan,Italy[6] ,Ministry of Health and Social Welfare Swaziland[7 8]

HIV/AIDS is a global health problem especially in Southern Africa where Swaziland is one of the mostly affected countries by pandemic.
In order to monitor the epidemic trend and to characterize population sectors that are most sensitive to infection, this study aimed to identify the proportion and the factors associated with recent HIV infections among pregnant women in Swaziland.

METHODS: We analyzed 1,636 HIV-positive serum samples collected from pregnant women included in the HIV Serosurvey conducted in Swaziland in 2004 and 2006. For each woman, socio-demographic and clinical data were available. All samples were tested for the avidity index (AI) as previously described (1); samples with an AI¡Ü0.80 were defined as recent infections (¡Ü6months from seroconversion). A multivariate analysis was conducted to analyze socio-demographic and clinical factors associated with recent infection.

RESULTS: The proportion of recently infected pregnant women was 14.6% (95%CI 12.2-17.5) and 13.1% (95% CI 11.0-15.5) in 2004 and 2006, respectively, with no significant difference between the two years. At multivariate analysis, the probability of being recently infected was significantly higher among women aged 14-19 years compared to older women (aOR 2.2, 95%CI 1.5-3.2), and among those who were at their first pregnancy (aOR 1.6, 95%CI 1.1-2.3). Residence, nationality, educational level, and reportedly sexually transmitted diseases were not associated with recent infection.

CONCLUSIONS: In Swaziland, HIV continues to spread among pregnant women without any evident decrease in the last years, as indicated by the stable trend of recent infections rate. In our sample, adolescent girls showed the highest probability of acquiring HIV infection, stressing an urgent need for tailored prevention and education campaigns to be conducted in schools, focused at preventing on stopping behaviors at-risk among teenagers.
(1) Suligoi B. et al, J Clin Microbiol 2002; 43(11):4015-4020.
daniela.bernasconi@iss.it
Contact Phone: 0039.06.49903667

PE2.1/3

A regional comparison of the mode of HIV-1 transmission in patients enrolled in the EuroSIDA study

Jorunn Tverland[1], Joanne Reekie[2], Maria C. Paulsen[3], Amanda Mocroft[4], Anna Vassilenko[5], Vilma Uzdaviniene[6], Natalia Zakharova[7] , Nelly Chentcova[8], Michelle Ellefson[9], Ole Kirk[10]
Copenhagen HIV Programme Denmark[1 3 9], Royal Free Hospital United Kingdom[2 4], Belarus State Medical University Belarus, Belarus[5] , Lithuanian Aids Center, Lithuania[6] , St Petersburg AIDS Center, Russia[7] , Kiev Centre for AIDS, Ukraine[8] , for the EuroSIDA Study, Denmark[10]
Background. According to the UNAIDS Report on the global AIDS epidemic from 2008, the number of new HIV infections in Europe is steadily increasing. The aim of this analysis was to investigate whether the modes of transmission are changing over time in patients recruited to the EuroSIDA study and to describe regional differences therein.
Method. The EuroSIDA study is a prospective, observational cohort of 16,505 HIV-1 infected patients in 103 centres across Europe, Israel and Argentina. We analyzed 7416 patients enrolled in EuroSIDA who had a follow-up visit recorded in 2007, a documented date of HIV-diagnosis and mode of HIV-transmission recorded. Patient characteristics including gender, ethnicity, age and year of diagnosis were compared across four modes of HIV-infection: homosexual transmission, intravenous drug use (IDU), heterosexual transmission, and other (including haemophilia transmission). The regional categories were those used in other work from the EuroSIDA study: Southern Europe + Argentina, Central Europe, Northern Europe and Eastern Europe.
Results. The number of patients infected via homosexual transmission were 2993 (40%), 1657(21%) IDU, 2367 (32%) heterosexual and 489 (7%) via other. IDUs were younger (median age 26 versus other modes of infection median 32, p<.0001) and had higher CD4 counts at time of diagnosis, median 324 cells/mm3 compared to other modes of transmission (median 223 cells/mm3, p=0.0005).

Heterosexual transmission was increasing in all regions. Specifically in Southern Europe there was an increase in the proportion of heterosexual transmission among documented HIV-infections from 13% of patients diagnosed before 1990 to 50% of patient diagnosed ¡Ý 2000(p<. 0001). Heterosexual transmission was more likely to be among more recently diagnosed, older, female, non-white patients in Southern Europe.
In the same period in the Northern and Central European regions, the percentage of IDU transmissions has moderately decreased from 18 to 5% (p<0.0001) and 27% to 6% (p<.0001) respectively. In Southern Europe it has decreased dramatically, from 65% to 6%(p<.0001). In Eastern Europe the rate of IDU transmission remains high (40%) compared to less than 10% in other regions.

Southern and Central regions showed a slight decrease in homosexual transmission whereas the Northern and Eastern regions showed a substantial decrease. In Eastern Europe homosexual transmission is just above 20% for those diagnosed ¡Ý2000 whereas in the same period in the other regions about 40% of infections are via homosexual transmission.
Conclusions. The proportion of transmissions via heterosexual sex has increased over time; in Southern Europe it now accounts for 50% of all transmissions. IDU transmission appears to be decreasing across all regions of Europe although it remains high in Eastern Europe. Homosexual transmission is only reported as the transmission category in about 20% of the cases in Eastern Europe ¡Ý2000 compared to about 40% in the other regions.
EuroSIDA has recently enrolled 2500 new patients, 1250 of whom are from Eastern Europe. This analysis will be updated when data from the new patients is available later this year.
jtv@cphiv.dk
Contact Phone: +45 3545 5789

PE2.1/4
Genetic variability of HIV in Russia
Eduard Karamov[1], Alexandr Pronin[2], Galina Kornilaeva[3], Igor Serkov[4], Pavel Zenin[5], Evgenia Zhukova[6], Alla Garmanova[7], Elena Orlova-Morozova[8], Kizhalum Khametova[9], Vladimir Lukashov[10]
The D.I. Ivanovsky Institute of Virology, RAMS Russian Federation[1 3 5 9 10], Centre for Prevention of AIDS and Infectious Diseases of Moscow Region Russian Federation[2 4 6 7]

Background. The epidemic of HIV in Russia is currently in the stage of active spread. The early phase of the Russian epidemic, formed by multiple heterogeneous introductions from diverse regions of the world, was represented by A, B, C, D, F, G, and H subtypes. Subtypes B, C, and G prevailed before 1996. The new epidemic was related to the introduction of HIV-1 subtype A and of a new HIV-1 subtype recombinant, gagA/envB. HIV-1 subtype A variants affecting primarily IDUs accounted for more than 90% of new cases of the infection in 1999-2001. Note that the epidemic was characterized by founder-effects (the differences between viruses isolated in various regions of Russia affected no more than 1-2% nucleotides). Since 2003, heterosexual transmission of HIV-1 has been increasing. Therefore, permanent monitoring of circulating HIV-1 forms makes it possible to reveal predominant HIV-1 variants.
TB plays significant role in pathogenesis HIV as opportune infection. In 2004 in analytical review scientists predicted significant worsening of epidemic situation in Russia at next years because of developing HIV into AIDS, and accordingly to prediction more than half of HIV-infected with AIDS will suffer TB. Scientists of Federal scientific-methodology center of preventing of AIDS conducted researching from 2004 to 2006. They showed that in 15 regions of Russian Federation not less than in 50% cases death reason of HIV-infected was TB. These data shows pathogenic correlation between TB and HIV.

Methods. To study genetic and antigenic variability of HIV-1, we are collecting sera of HIV-infected patients. Extraction of the viral RNA is conducted using magnetic particles. Nested PCR is used to amplify env and gag regions of HIV-1 genome. The amplified regions are detected by electrophoresis in 1% agarose and examination of the gels under UV.

Results . We determined the sequences of amplified env and gag regions of HIV-1 genome and the subtypes of the isolates.

Conclusions. Permanent monitoring of circulating HIV-1 forms allows revealing predominant HIV-1 variants. This holds important implications for diagnosing, treating, and controlling HIV infection. All data generated (including epidemiological data on age, gender, transmission pathways, presence of coinfections, etc.) allow us to understand the nature of HIV/AIDS epidemic and predict its evolution in Russia.
Our serum collection from HIV-1 patients serve for development of HIV vaccine, monitoring of HIV prevalence and accidence, detecting of subtype (genotype and phenotype) of circulating virus strains in Moscow region.
At present our collection has 300 samples of blood sera of HIV-positive individuals.
Virus variants isolated from early seroconvertors being actual strains may be used for development effective HIV vaccine.
Isolation and storing of PBMCs of early seroconvertors are performed accordingly with international protocols. At present our collection includes 15 samples of early seroconvertors.
greywolf5@rambler.ru
Contact Phone: +985-222-76-87

PE2.1/5
Responding to recent rises in new HIV diagnoses among MSM in South Australia
Matthias Wentzlaff-Eggebert[1], Daniel Gallant[2]
Department of Health of South Australia, Australia[1 2]

Background. The Australian Government responded to HIV in partnership with affected communities and their organisations, clinicians, and researchers. Public health authorities supported the safe sex culture emerging in communities of gay men through funding non-government AIDS service organisations' health promotion campaigns. Activism and civil disobedience by dedicated and concerned clinicians brought the policy and law changes necessary for the introduction of needle exchanges. Sex workers promoted a culture of universal condom use.
These strategies prevented a more generalised epidemic in Australia. HIV infections among people who inject drugs are rare, and heterosexually transmitted HIV is mostly related to migration from or travel to high-prevalence countries. New HIV diagnoses, high among men who have sex with men (MSM) in the late 1980s, declined steeply from the early 1990s.

Between 1999 and 2007 however, new HIV diagnoses have increased in Australia by almost 50%, mostly among MSM. When the increase was first observed, public commentary frequently use of the word 'complacency' in relation to gay men's safe sex behaviour. More recently, differences in the epidemic among Australian States and Territories prompted a more sophisticated analysis. While rates remained stable in New South Wales, the state with the largest MSM population and HIV epidemic, rates were increasing in two neighbouring states, Victoria and Queensland. South Australia, on a smaller scale, experienced a similar upward trend.
Methods. This presentation summarises the deductive model used in South Australia, a small region with limited resources for local HIV research and prevention, to respond to rises in HIV.
Results A comparative analysis of the behavioural disease surveillance data available in Australia generated hypotheses later tested using mathematical modelling. This modelling concludes that increases in unprotected anal intercourse with casual partners (UAIC) alone cannot explain the rises, and that concurrent increases in Sexually Transmitted Infections (STI) had to be taken into account. Further detail provided by qualitative social research identified multiple factors such as drug and alcohol use, adventurous sexual subcultures and sero-sorting. This body of evidence replaced the simplistic 'complacency' theory with a more complex but informative explanation including the contention a large proportion of new infections were transmitted by people in the early stages of infection and still unaware of their HIV positive status. This evidence prompted the development of a cross-sectoral partnership, bringing together primary care clinicians and community-based organisations as well as public health authorities and resulted in coordinated, multi-level prevention interventions. While not enough time has passed, the upward trend in

new HIV diagnoses has not continued in South Australia in 2008.
Conclusion. In the absence of high-level scientific evidence for broad-based additional prevention interventions in a low-level concentrated epidemic with already high levels of testing, treatment and condom use, this deductive and collaborative response is a workable response to changes in the epidemic. By mobilising and reorienting existing prevention efforts it can be implemented even without increased resources.
matzdean@adelaide.on.net
Contact Phone: +61 8 8226 7298

PE2.1/6
HIV-1 Molecular Epidemiology in Georgia
Natia Dvali[1], Tengiz Tsertsvadze[2], Nikoloz Chkhartishvili[3], Monica Parker[4], Jack DeHovitz[5], Renee Hallack[6], Marine Karchava[7], Nino Gochitashvili[8], Akaki Abutidze[9], Maia Zarandia[10], Lali Sharvadze[11]
Infectious Diseases, AIDS and Clinical Immunology Research Center Georgia[1 2 3 7 8 9 10], Wadsworth center, NYSDOH United States[4 6], SUNY Downstate Medical Center United States, United States[5]

Background : Genetic diversity of HIV-1 has significant implications for diagnosis, monitoring and clinical management of HIV/AIDS patients. The molecular epidemiology of HIV-1 infection was first studied in Georgia in 2003. 48 samples from HIV-1 positive patients representing different modes of transmission drawn from October to December 1998 and from May to August 2003 were analyzed. The predominant genetic form circulating in was subtype A (70%) (AFSU), associated with injection drug use (IDU). Over the past several years Georgia's IDU driven epidemic witnessed rise in heterosexually acquired HIV. The objective of present study was to investigate molecular epidemiology of HIV-1 in Georgia and to obtain better understanding of trends of
the HIV epidemic in Georgia,

Methods : Plasma samples from 153 HIV-1 positive individuals were collected from January 2006 to January 2008. 1.3- kb segments of the pol region of the HIV-1 genome were amplified and sequenced using the Trugene HIV-1 Genotyping Kit and the OpenGene DNA Sequencing system (Siemens) according to the manufacturer's instructions. For the Initial subtype characterization all sequences obtained were exported to the two web- based genotyping tools available at Stanford University (http://hivdb.stanford.edu/) and Los Alamos National Library (http://hiv-web.lanl.gov/content/hiv-db/mainpage.html). Further, multiple alignments of the partial pol sequences were created with selected reference isolates obtained from the Los Alamos National Laboratory
HIV Sequence Database (http://www.hiv.lanl.gov/content/hivdb/SUBTYPE_ REF/align.html). Phylogenetic analyses were conducted using MEGA version 4.0. The neighbor-joining method and Kimura two-parameter
model was used for tree construction, with reliability estimated from 1000 bootstrap replicates.

Results: Of 153 patients 67 (43.79%) were IDUs, 75 (49.02%) were exposed via heterosexual contact, 4 (2.61%) were attributed to male-to-male sex, in 6 (3.92%) mode of transmission could not be ascertained and one (0.65%) was infected by blood transfusion. Of 153sequences analyzed 136 (88.89%) were subtype A (AFSU), 13 (8.50%) were subtype B, 2 (1.31%) – subtype G, 1 (0.65%) – was 03_AB recombinant, 1 (0.65%) – subtype F. Subtype A was predominant clade in both major transmission categories: accounting for 62 (92.54%) and 66 (88%) of infections among IDUs and heterosexual contacts, respectively. Of 75 heterosexually exposed subjects 54 (72%) were females, who acquired HIV from their IDU partners.

Conclusions: Genetic diversity of HIV in Georgia remains low. Subtype A continued to be the predominant genetic form over the decade. Findings of the study suggest that HIV-1 epidemic in the country remains directly and indirectly (through sexual partners of IDUs) concentrated around IDU community. Evidence-based interventions targeting IDUs and their sexual partners are urgently required to halt the spread of the HIV epidemic in the country.
aids@gol.ge
Telephone: +995 99 227711

PE2.1/7
High percentage of recent HIV infections among HIV-positive clients of voluntary counselling and testing sites in Poland in 2006
Joanna Gniewosz[1] , Anna Marzec-Boguslawska[2], Janusz Janiec[3], Joanna Smolen[4], Tomasz Wasik[5], Gary Murphy[6], Elaine McKinney[7]
National Institute of Public Health - National Institute of Hygiene, Poland[1 3], National AIDS Centre, Poland[2], Medical University of Silesia, Poland[4 5], Virus Reference Department, Health Protection Agency Centre for Infections, London[6 7]

Background: Network of Voluntary Counselling and Testing Sites (VCT) has een established in Poland in 2001. At present 25 VCT centres operate in all major cities nationwide. Thanks to extensive media educational programme the number of people taking voluntary tests increased more than six times from 2001 to 2007. Over 20% of all newly diagnosed HIV infections are diagnosed within this network. Promotion of HIV testing is one of the European priorities to control HIV epidemic and is especially important in Poland, where a substantial increase of late presenters was observed over the past 5 years.

Methods: Remaining samples from all HIV+ VCT clients tested in 2006 were investigated with BED assay for evidence of recent infection. Database of socio-demographic characteristics of VCT clients was matched with the laboratory results. Both laboratory and epidemiological data were available for 96 subjects. Data were analyzed using SPSS software. Logistic regression with the use was performed in order to assess influence of the subject characteristics (age, sex, education, sexual orientation) and risk behaviors (condom use, number of sexual partners, injecting drugs) on frequency of recent infection.
Results: Primary HIV infection was diagnosed in 43 of 96 (44.8%) subjects. The percentage was lower among persons who have ever injected drugs (18,8%) and higher among men who have sex with men (54,5%).
In multivariate analysis sex, gender, educational level and sexual orientation were not associated with recent infection. However, number of sexual male partners were observed to be borderline significant (p=0,05). Injecting

drugs in the past was significant (p=0,038) predictor of long-standing HIV infection.
Conclusion: Nearly half of newly diagnosed patients in the analyzed group had recent HIV infection confirmed with BED assay. VCT network allows to diagnose an important number of recent infections and thus potentially stop further transmission of the virus. Data from other sites are needed to confirm the findings regarding risk behaviours associated with more frequent recent infections.
mrosinska@pzh.gov.pl
Contact Phone: +4822-5421-296

PE2.1/8
Early laboratory HIV diagnosis in drug users
A.Griskevicius [1], V.Lipnickiene [1], D.Karmoniene [1], M.Kudabiene [1], S.Caplinskas [1 2]
Lietuvos AIDS centras[1], Mykolas Romeris University[2]

Cases of drug use in groups are frequent; therefore one person with HIV infection in the circle of users may spread the virus imminently, especially in case of acute HIV infection. Drug users in Lithuania are not a subject to obligatory HIV screening, and budgeting of the testing from the State Patient Fund is not organised. Therefore, consideration for HIV test among medical workers in case of doubtful diagnosis or people suspected in drug use turns to be significant.

In September 2008 three sera from a district hospital were delivered to the Laboratory of the Lithuanian AIDS Centre. The confirmatory testing by immunobloting reaction proved two cases with antibodies against only several proteins. Under suspicion of acute infection, HIV antigen test was performed resulting positively and confirmed by neutralisation reaction. Acute HIV infection was confirmed in all three cases, and the following survey found out a history of drug use. Local harm reduction site was informed about this and asked to announce a voluntary consultation and testing action. In 3 months 42 drug users were tested. Confirmatory testing identified 10 cases of HIV infection including two already reported and 8 new. Results of the laboratory testing let to suppose that 5 people attracted the virus during 6 months and 3 had an old infection. High HIV antigenemia was identified in two cases.
Conclusions:

1. Testing of HIV antigen may be useful in finding out the new cases in drug users; therefore it must be applied in drug users upon evidence of low OT values while testing specific antibodies by IFA method.
2. Timely identification of cases with HIV antigenemia and respective work with them may slow explosive HIV transmission in drug users.
3. Testing of drug users in the outbreak area requires application of the fourth generation HIV tests.

Contact information: algirdas.griskevicius@aids.lt

PE2.1/9
Bio-Behaviour Survey Among Street Sex Workers in Vilnius
Caplinskas S. [1], Jarašūnienė R.[2], Caplinskiene I.[3], Simkunaite A.[4], Kulšis S.[5]
Lithuanian AIDS centre under Ministry of Health[1 2 3 4 5], M.Romeris university[1 3]

Background: Objectives – to evaluate the prevalence of HIV and other STI and risk behaviour among street sex workers (SSWs) in Vilnius.
Methods: A cross-sectional anonymous bio-behaviour survey (BBS): interview (n=88) and testing (n=75), of SSWs (average age 20-29 years) from railway station area of Vilnius city, was carried out in 2008. Women were tested for HIV, viral hepatitis C and B (HCV and HBV), syphilis, gonorrhoea, human papillomavirus (HPV). Windows SPSS package version 15.0 was used for statistical data analysis.
Results: HCV was diagnosed in 24.3% (n=17), hepatitis B – 11.4% (n=8), HPV – 40.8% (n=20) gonorrhoea – 19.2% (n=14), and syphilis – 5.7% (n=4) respondents, no HIV cases identified. 88.4% of respondents were using condom during their last intercourse, 53% reported over 10 clients during the last 30 days. 61.4 % (n=54) had a long history of drug use (average 7±4.5 years): 59% injecting drugs, one third – more than 3 times per day, 38.5% - 2-3 times per day. Intravenous drugs were used about 7±4.2 years, starting at 18. Sterile syringes were used by 84% respondents and 6% reported receptive sharing syringes 3-5 times during last 30 days. 20% of respondents noticed that their syringes/needles were used after them by others 3 and more times during last 30 days. During last 8 years (2001-2008) the number of IDUs among SSWs increased from 24.6% to 59% ($p<0.05$).
Conclusions: the study shows a high rate of STI (except HIV) among SSWs (the prevalence ranges from 5% to 41%). Most of women use condom with their clients and do not practice sharing needles. The findings of the current survey show an increase of IDUs among SSWs compared to the previous survey.

Contact information: ruta@aids.lt
PE2.1/10
20 year HIV/AIDS surveillance database evaluation results in Lithuania
Caplinskas S.[1,2] Caplinskiene I.[1,2] Strujeva O.[1]
[1] Lithuanian AIDS centre under Ministry of Health
[2] M.Romeris university

Background: the objective of the study was describe HI/AIDS epidemic in Lithuania.
Methods: HIV epidemic review is based on retrospective analysis of the national HIV surveillance database (1988-2008), coordinated by Lithuanian AIDS centre. Statistical data analysis was performed by application of statistical EPI Info 2002 package.
Results: 1401 HIV cases in Lithuania were registered at the end of 2008 since 1988. During the whole HIV reporting period totally 1183 HIV cases in males and 218 in females were registered. Totally 52 HIV cases were reported in the first HIV epidemic period (1988-1996) and among them 50 % of HIV transmission mode was heterosexual and (38,5%) homosexual intercourse.
During the second period (1997-2003) 793 HIV cases were registered. The drug use was recognised as the main mode of transmission - at least 674 registered cases (85 %). Heterosexual transmission occurred in 5,5 % cases, homosexual – 4,4 % cases. During the third period (2004-2008) 556 HIV cases were registered: 62,8% HIV cases infected through IDUs injecting equipment, 20,1% - through heterosexual intercourse, 5,2 % - through homosexual intercourses. First perinatal case was indentified in 2007.
Cumulative number HIV cases by the mode of transmission in 20 years period are: intravenous drug use – 73.4 % (n=1028) cases, heterosexual contact - 13.1% ((n=184)

cases, homosexual contact - 6.6 % (n=92), perinatal - 0.07% (n=1), unknown - 6.8 % (n=96) cases. By age: mean age of people at the moment of HIV diagnosis in the first HIV period was – 33.96 (SD=10.46); in the second - 31.36 (SD= 8.78); in the third – 32.30 (SD= 9.18) years old.
HIV incidence rate in Lithuania in last five years (2004-2008) is stable: 3.93/100,000 population in 2004, and 2.82/100,000 per population in 2008. Totally 206 AIDS cases were diagnosed. AIDS incidence rate - 0,8/100,000 population in 2008. Number of annual AIDS cases in last 5 years (2004-2008) has doubled: 21 AIDS cases were reported in 2004, and 55 in 2008. AIDS cases in IDUs has significally increased: n=5 cases in 2004 and 36 – in 2008.
Conclusions: According to the prevailing modes of HIV transmission over
20 years since the HIV epidemic began, 3 periods of HIV spread may be
distinquished. Up to 1997, the sexual HIV transmission mode prevailed;
during 1997-2003, HIV was mainly transmitted via injecting equipment in
the IDUs population; since 2004, HIV infection rate has stabilised among
IDUs but has been increasing among sexual partners of IDUs. HIV incidence rate in last five years is stable. Number of annual AIDS cases in last 5 years (2004-2008) has doubled.
Contact information: saulius@aids.lt

PE2.1/11
Prevalence of HIV and other blood-borne infections (BBI) among IDUs in Vilnius: findings from the first respondent-driven sampling (RDS)
Caplinskiene I.
Lithuanian AIDS centre under MOH,
M.Romeris University

Background. Over the last decade, majority (71% in 1998 and 44.2% in 2008) of new HIV cases in Lithuania were associated with IDU. HIV prevalence in three non-probability-based samples of IDUs in Vilnius was 3%, 4.8%, 9.98%. The study was aimed at assessing the prevalence of HIV, HBV, HCV, syphilis and HIV-related risk behaviours among IDUs in Vilnius. Complete and representative data on HIV are required to properly guide prevention programs and curb HIV epidemic. Over recent years, RDS has been introduced for reaching a probability sample of hidden populations, including IDUs.
Methods. RDS technique was used to conduct a network-based survey on HIV and other BBI related bio-behaviour (BIO-BBS) of active IDUs (n=400). 6 IDUs were selected as initial seeds from SEP after informed consent. Face-to-face interviews using a structured questionnaire were held, blood specimens were taken, HIV counselling was provided and incentives used. A coding (coupon management) system was used to link a recruit to a recruiter. Survey duration: 16 weeks. Statistical analysis performed with SPSS 14.0 for Windows and RDSAT.
Results. Mean age of the participants: 30.5 years (329 males (82.3%) and 71 females (17.7%). Main injecting drugs: poppies 228 (57.4%) and heroin 128 (32.2%). 379 (94.8%) respondents reported having been tested for HIV during the lifetime. 24 (75%) of those who were HIV-positive (n=32) reported that their previous HIV test had also been positive. Proportion of those who reported testing for hepatitis B and C during the lifetime: 339 (84.8%) and 361 (90.3%) respectively. Testing for HIV, VHC, VHB antibodies: HIV prevalence - 8% (95% CI: 5.3–10.7%); HCV prevalence 94.8% (95% CI: 92.6–97%); HBV-core antibody prevalence 82% (95% CI: 78.2–85.8%). Participants with HIV, HCV and HBV coinfections n=27(6.8%). Participants with HIV neg/HBVneg/HCVneg n=16 (4%). 7%(n=28) participants tested positive for syphilis markers. Survey reached 95 IDUs that did not appear in previous BSS using other sampling methods.
Conclusion. This is the first study using RDS among hidden populations in Lithuania. RDS proved to be a time-efficient with over 400 participants recruited in four month, reliable and effective methodology. Survey data indicates a concentrated (8%) level of HIV epidemic among IDUs in Lithuania.
Contact information: irma@aids.lt

PE2.2/1
Structural analysis of the TAR hairpin in HIV-1 type A variants dominating in Russia
Ilya Lapovok[1], Elena Kazennova[2], Marina Bobkova[3]
The Ivanovsky Institute of Virology of the Russian Academy of medical sciences [1 2 3]

Introduction: The hairpin TAR (trans-activation-responsive) element in the secondary structure of 5f-untranslated region of HIV-1 RNA plays an important role in viral replication. This hairpin binds with viral protein Tat and positive transcription elongation factor b (P-TEFb). In the presence Tat and P-TEFb LTR activity is further elevated (135-fold). The secondary structure TAR and structure of its apical loop is very important. For example, mutations in loop element associate with reduction the activity of TAR to 2%.
The purpose of the study was to characterize the primary and secondary structure of TAR hairpin in the variant of HIV-1 subtype A dominating in Russia.
Methods: We have studied 45 samples of PMBC from HIV-infected individuals collected between 1996 and 2004. All of them belonged to HIV-1 subtype A according to results of prior analysis of gag and env genes. TAR sequences together with the region preceding gag start codon (650 bp) in nested PCR products were studied.

Results: We have found that 80% of the samples have the typical secondary structure of TAR hairpin because most mutations were the single substitutions that didnft lead to the change of the hairpin structure. The substitution G¨A in apical loop was found in two samples (in position +33), that however didnft influence the structure of loop. One sample has the deformation of apical loop because of substitution C¨G in position +36. One HIV variant obtained in 1997 had fully destroyed structure of TAR as a result of 4 substitutions.

Conclusion: The mutations in apical loop founded in 4 samples may potentially have the lowering effect on the process of LTR-direct transcription. The fact, that we found the full deformation of TAR only in one sample obtained after 1997 (the start of epidemic in Russia) allows to consider that this variant had the low transcription potential and thus didnft get the prevalence in Russia.
i_lapovok@mail.ru
Contact Phone: 7 499 190 30 63

2.2 Molecular Epidemiology

PE2.2/2
Predicting viral phenotype in Russian HIV-1 genetic variants using sequence-based predictors

Alexandr Vasilyev[1], Elena Kazennova[2], Marina Bobkova[3]
D.I.Ivanovsky Institute of Virology, Russian Federation[1 2 3]

Background: Human immunodeficiency virus type 1 (HIV-1) enters CD4-expressing cells using one or both of the chemokine receptors CCR5 and CXCR4. CCR5-using virus clones are classified as R5 variants, CXCR4-using virus clones are classified as X4 variants, and virus clones that use both coreceptors are classified as R5X4 dual tropic variants. Early in HIV-1 infection, viruses primarily use CCR5 as a co-receptor for host-cell entry. The appearance of variants able to use CXCR4 is associated with increased virulence, accelerated CD4+ T cell decline and more aggressive disease progression. Studies have shown that certain amino acid sites in the env gene, specifically in the third variable (V3) loop, are involved in coreceptor binding. Distinct genetic differences between CCR5-and CXCR4-using viruses have been described that influence coreceptor usage. These differences have been exploited in bioinformatic methods to predict tropism. Sequence-based methods can provide a useful surrogate of laborious and costly cell-based phenotyping methods. Sequence-based methods have been developed mainly for subtype B sequences, C-PSSM method for subtype C sequences and no methods - for subtype A1 sequences. It is important to note that HIV-1 A1 subtype (genetic variant IDU-A) is the most abundant in Russia.
The aim of the work was to compare ability of different sequence-based methods (11/25, SVM, C-PSSM and B-PSSM methods) to determine HIV-1 subtype A1 viral phenotypes and to choose the most suitable among them.

Methods: Phylogenetic analysis of the sequences was made using the DNASTAR program package. The bioinformatic predictors PSSM and SVM are available online at: http://mullinslab.microbiol.washington.edu/computing/pssm/ and http://coreceptor.bioinf.mpi-inf.mpg.de/index.php, respectively. Prediction of viral phenotype by 11/25 predictor was performed manually.
Results: The set of samples studied included 36 subtype A1 virus V3 loop sequences of known phenotype available from GenBank. Among them 26 sequences belonged to R5 phenotype and 10 sequences belonged to X4/R5X4 phenotypes. We compared capabilities of four sequence-based methods (11/25, SVM (false positive rate 10%), C-PSSM and B-PSSM) for detection of X4/R5X4 phenotypes as applied to subtype A1 virus. We established that B-PSSM bioinformatic method was highly sensitive (90%) and highly specific (100%). The 11/25 method was less sensitive (60%) and highly specific (100%). The SVM bioinformatic method was 70% sensitive and 100% specific. The C-PSSM bioinformatic method was 90% sensitive and 84.6% specific. Thereby B-PSSM method is the most appropriate for HIV-1 subtype A1 viral phenotype determination.

Conclusions: According to our study the B-PSSM method was assessed to be the most appropriate for subtype A1 viral phenotype determination. This method is highly sensitive (90%) and specific (100%) and can be widely employed for the HIV-1 subtype A1 viral phenotype prediction.
Contact Phone: +7 499 1903063

PE2.2/3
Extensive structural analysis of HIV-1 genomic RNA region encompassing DIS, SD and Psi hairpins

Margaryta Zarudna[1], Iryna Kolomiets[2], Andriy Potyahaylo[3], Dmytro Hovorun[4]
Institute of Molecular Biology and Genetics NAS of Ukraine
Ukraine[1 2 3 4]

The 5-untranslated region of the human immunodeficiency virus type 1 (HIV-1) genomic RNA completely consists of structural elements that play important roles in the viral replication cycle. Amongst these are DIS hairpin essential for dimerization initiation of HIV-1 genomic RNA, the SD hairpin containing the major splice donor site and Psi hairpin, the major packaging signal. The specific structural features of these hairpins are important for their functioning, however the data on their secondary structure currently available are incomplete and rather discrepant.
To systemize our findings on phylogenetic analysis and RNA structure prediction of HIV-1 control elements, we developed the CESSHIV-1 database (control elements secondary structure of HIV-1 genome). The primary sequences of HIV-1 genomic RNAs have been extracted from NCBI, and the secondary structures of the region under study have been predicted by the mfold program (Zuker, 2003).
Presently the first section devoted to DIS, SD, and Psi hairpins is available on-line. This section contains secondary structures of the region encompassing these hairpins for about 1300 HIV-1 isolates and analytical information. Particularly, we found and presented 18 variants of DIS, 8 variants of SD and 10 variants of Psi hairpins which occur in our database with frequency above 0,5%. We have chosen DIS_{Lai} (mostly isolates of B subtype), DIS_{Mal} (mostly A-containing recombinants or A subtype), DIS_{C} (almost all of C subtype), DIS_{F} (C or F subtype) and DIS_{Trans} (B/F recombinants) as parental DISes and classified all DIS variants found according to them. Parental DISes were found to tolerate differently certain base changes. For example, 27A27G occurs in 4% of isolates with DIS_{C}, 0.4% - with DIS_{Lai} but does not occur in isolates with other DISes. Also we found tolerant and intolerant combinations of base changes in DIS, SD and Psi hairpins. Particularly the double base change $C^{6}U^{7}A^{6}C^{7}$ in SD stem ($SD^{6A,7C}$) occurs in isolates with DIS_{Lai} or DIS_{Trans} only.
The database analytical summary presents the schemes of hypothetical transitions between all frequent variants of DIS, SD and Psi hairpins via a single base change, which may contribute to a better insight into HIV-1 evolution.
We studied specifically 58 isolates circulating in countries of the former Soviet Union (FSU), 33 ones having been submitted to GenBank recently. Among them 52 isolates (mostly of A subtype) have similar secondary structure portrait of the region under study - DIS_{Mal}, AGC linker, SD_{RS}, UAA(A)GA linker, Psi_{U-A}. We discovered that the linker between SD and Psi hairpins is a highly specific feature of HIV-1 strains circulating in FSU and may be considered as a regional hallmark. For comparison, more than 70% isolates with DIS_{Mal} from our database have A-containing SD/Psi linker (mostly AAA or AA).
The authors believe CESSHIV-1 database to be a guide to variants of HIV-1 control elements, their secondary structures, subtype specificity, geographical distribution and be useful for a wide range of researchers and physicians engaged in HIV-1 science.

PE2.2/3

Prospective epidemiological study on the prevalence of HLA B* 5701 in HIV-1 infected patients

Prof.Dr. Adrian Streinu-Cercel[1], Prof. Matti Maimets[2], Dr. Tania Cherveniakova[3], Dr. Denes Benhegy[4] , Dr. Inga Januskevica[5], Dr. Vilma Updaviviene[6], Dr. Janez Tomazic[7]
Professor of Infectious Diseases Carol Davila University Romania[1], Estonia[2], Bulgaria[3], Hungary[4], Latvia[5], Lithuania[6], Slovenia[7]

Background & Aims: The Major Histocompatibility Complex Allele Leukocyte antigen (HLA) B*5701 has been strongly associated with the risk of a hypersensitivity reaction to abacavir (antiretroviral therapy in HIV infected patients). HLA B*5701 is present in approximately 5% of the general population, ranging from 1-2% in Afro-Americans or Hispanics to approximately 8% in Caucasians and even higher in some ethnotypes, such as Thai. The epidemiological data available at this time are limited on the prevalence of HLA B*5701 in HIV-1 infected patients in the Central Eastern European (CEE) region.

The study's aim is to determine if prospective genetic screening for HLA B*5701 results in a clinically relevant reduction in abacavir hypersensitivity reaction (ABC HSR) compared to the standard of care, which does not include genetic screening for HLA B*5701.
Methods: This study is a multi-centric, cross sectional observational study for evaluating the prevalence of HLA B*5701 in the CEE region. We included 1378 HIV infected patients both naïve and experienced, during February – December 2008, in the CEE area. The countries included are Romania 637, Estonia 352, Hungary 136, Latvia 101, Lithuania 71, Slovenia 40 and Bulgaria 41.

Blood samples for HLA B*5701 screening were collected and a sequence based allelic typing method was employed. The HLA B*5701 has been detected from DNA samples using sequence specific primers, with highly specific sensitive and reproducible methodology (Assign SBT v3.5, Abbott).
The main endpoint was determining the prevalence of HLA B*5701 in the CEE HIV-1 infected population as a whole.
Results: HLA B*5701 prevalence in the HIV-1 infected Caucasian CEE population was 4%. Our study population was stratified according to age, sex, ethnicity, geographic ancestry, HIV risk factors. The male/female proportion for the entire study population is 58,16% male, 41,84% female. The risk factors incriminated were: homosexual intercourse 13,62%, heterosexual 29,68%, IV drug users 19,16%, transfusion 0,65%, hemophilia associated transfusion 0,29%, occupational exposure 0,00%, vertical/perinatal transmission 0,79%, other causes 35,81%. Out of our total number of enrolled patients, 98% were HLA B*5701 negative, 7% undetermined and 4% positive, with slight variations from country to country.
Conclusions: The prevalence of HLA B*5701 in Caucasian HIV-1 infected patients is lower than in other ethnic populations and lower that in general Caucasian population

strega@mb.roknet.ro
Contact Phone: +40 0732 307 274

PE2.2/5

HIV genotypes distribution among newly registered HIV cases in Lithuania in 2008

M. Maconkaite [1], A.Gorobecas [1], A.Griskevicius [1], S. Caplinskas [1 2]
Lietuvos AIDS centras[1], Mykolas Romeris University[2]

Background:
In the Eastern Europe, HIV epidemics are mostly associated with injecting drug use (IDU). The epidemic is caused mainly by a strain belonging to genetic subtype A. This situation differs from the Western Europe where subtype B strain circulates. As a member of the European HIV resistance network, the Lithuanian AIDS Centre seeks to test all new HIV cases with RNA higher as 1000 copies/ml for primary HIV resistance. Our aim was to identify HIV genotypes of the new HIV cases using sequences got from testing HIV resistance.

Methods:
Plasma collected from the patients was processed according the producer's instruction and tested by ViroSeq HIV-1 genotyping System v2.0 (Abbott diagnostica, USA). Pol gene of recently infected individuals was sequenced to determine the set of initial antiretroviral drug resistance. Data processed by Stanford database. It also assessed the sequences and determined the quality of the investigated samples and their subtype.

Results:
Of 95 new cases reported in 2008, 30 cases where tested. 9 samples were assigned to the subtype A, 9 - to the subtype B, 6 - to the subtype AB, 1 – to the subtype C and 5 samples were CRF01_AE.
Conclusions:

1. B subtype accounts only for 30% of tested cases in 2008, proving that distribution is more alike as in the Eastern Europe.
2. Due to the small amount of data results statistically can be unreliable and does not disclose the actual subtype distribution in Lithuania.

Contact information: algirdas.griskevicius@aids.lt

2.3 HIV-Prevalence/Incidence measurement

PE2.3/1

Rationale against pre-operative screening for HIV at Polish hospitals: A prevalence study of anti-HIV in contrast with anti-HCV and HBsAg

Maria Ganczak[1], Zbigniew Szych[2], Andrzej Bohatyrewicz[3], Piotr Biazecki[4]
Pomeranian Medical University Poland[1 2 3 4]

Objectives: Universal pre-operative HIV testing is recommended by CDC as a part of routine screening in health care settings for all individuals aged 13 to 64 years and is strongly supported by the vast majority of surgical personnel possibly as a result of a professional concern. The objective of the study was to detect the prevalence of anti-HIV among surgical and gynecologic&obstetric patients. Additionally, we determined the prevalence of HBsAg and anti-HCV in the study population in terms to contrast it with anti-HIV prevalence and to assess the rationale of pre-operative HIV testing.
Methods: Serum samples were collected anonymously from 1652 consecutive adult patients presenting to surgical and gynaecologic&obstetric wards of 16 randomly selected hospitals in West Pomerania, Poland between January 2008/January 2009 and assayed for HIV/HCV antibodies and HBsAg. Information about risk factors for contracting a blood-borne infection was collected by questionnaire.
Results: Response rate was 83.5%. 1118 of patients (68%) were females. The median age for the study population was 49 years (range 19-93). Over two thirds

(1118; 68%) of participants were hospitalised on surgical wards, the rest on gynaecological wards. One third was hospitalised in teaching hospitals (544; 33%), 218 (13%) in governmental, 890 (54%) – in rural hospitals. There were 1195 (72,3%) elective cases. Of 1652 patients, 1049 (63.5%) had a history of any surgery before admission, 915 (55.4%) - previous dental procedures with bleeding, 236 (14.3%) – received blood transfusion before admission, 234 (14.2%) had tattoo application, 105 (6.4%) declared risk factors in sexual partner(s), 26 (1.6%) intravenous drug abuse. None of the patients declared homosexuality. No anti-HIV positive samples were found in the study population (95%CI:0 - 0.23%), one was doubtful. This doubtful case showed twice a positive ELISA invalidated by the Western Blot (WB) test. In this case, despite the study protocol, an information about patient's positive ELISA test was passed from the laboratory to the surgical ward, where he was un-coded and confronted with the result, before WB test was done. Serologic evidence of HBsAg or anti-HCV was 1.5% (24/1652; 95%CI: 0.98-2.15%) all in elective cases, with prevalence of HCV 0.9% (14/1652; 95%CI: 0.51-1.42%) and of HBsAg 0.6% (10/1652; 95%CI: 0.33-1.11%) respectively. The risk factors variables did not have significant association with HCV or HBsAg positive cases (p>0.06).

Conclusions: As the prevalence of undiagnosed HIV infection among patients in this survey has been <1 per 1,000 patients screened, universal screening of surgical patients for HIV in Poland is currently not warranted, according to US CDC revised guidelines, however periodic assessments of HIV seroprevalence should be performed to determine possible changes in trends for this setting. In cases when HIV-testing is made to establish diagnosis, much greater efforts are needed to ensure confidentiality of such testing. Anti-HCV prevalence in surgical population is relatively low but slightly higher that for HBsAg, both posing a potential risk for those having occupational contacts with blood.

mganczak@sci.pam.szczecin.pl
Contact Phone: +48 91 48 713 92

PE2.3/2

Line-immunoassay-based differentiation of recent and older HIV-1 infection in newly diagnosed patients in Switzerland

Jeorg Scheupbach[1], Leslie R. Bisset[2], Christoph Niederhauser[3], Sabine Yerly[4], Stephan Regenass[5], Lukas Matter[6], Philippe Bürgisser[7]
University of Zurich, Institute of Medical Virology, Swiss National Center for Retroviruses Switzerland[1] [2], Blutspendedienst SRK, Bern Switzerland[3], Université de Genève / Laboratoire Central de Virologie, Switzerland [4], Universitätsspital Zürich / Klinik für Immunologie[5], Viollier AG, Basel, CH[6], CHUV, Lausanne, CH[7]

Background: Knowledge of the number of recent infections is fundamental to HIV surveillance. We have developed algorithms which, based on the intensity of antibodies to the five HIV-1 antigen bands sgp120, gp41, p31, p24, and p17 of the Inno-Lia HIV I/II Score assay, differentiate between infections of less or more than 12 m duration in a population. One of these algorithms, Alg12, distinguished recent and older infections in individuals known to have been infected for more or less than 12 months with 50% sensitivity and 95% specificity (PLoS Med 2007;4: e343). In order to monitor recent and older infections, we prospectively applied Alg12 and other algorithms to all patients newly diagnosed with HIV-1 infection in Switzerland in September 07-August 08. We also examined whether HIV diversity influences Inno-Lia patterns and, thus, the result of these algorithms.

Methods: For the prospective study, antibody reaction (scores 0, 0.5, 1, 2, 3, or 4) against the five HIV-1 antigens of the Inno-Lia was determined in all newly diagnosed HIV-1 cases and notified under code to the Federal Office of Public Health. There, the data was linked with likewise coded epidemiologic case information received from the treating physicians. In order to determine the impact of viral diversity, we examined 743 stored samples of known HIV-1 clade of the Swiss HIV Cohort study (SHCS). Of these, 111 were clade B, 92 CRF01_AE, 97, CRF02_AG, 94 A, 99 C, 66 D, 50 F, 63 G, 19 J, 21 CRF06_CPX, and the remaining 21 included clades H, K, CRF03_AB, CRF11_CPX, CRF12_BF, and CRF13_CPX. Univariate and multivariate logistic regression analysis was used to determine the impact of clade and other variables on recency outcome.

Results: During the 12 months from September 07-August 08, there were 639 new HIV-1 notifications. Alg12 classified 20.2% of these as recent, compared with 17.4% of 748 cases in a 12 months baseline study conducted in July 05-June 06. Based on Alg12's known sensitivity and specificity, the number of recent HIV-1 infections was calculated as 214 in September 07-August 08 compared to 204 at baseline. Notifications dropped from 244 to 180 in MSM, from 54 to 23 in IDU, from 305 to 239 in HET, but rose from 152 to 197 in patients of unknown risk (UNK). Recent infections also dropped from 125 to 91 in MSM, changed from 14 to 15 in IDU, but increased from 40 to 64 in HET (+60%; p=0.047) and from 25 to 44 in UNK. Clade had no influence on recency outcome of Alg12 and most other algorithms.

Conclusions: Despite decreasing notifications for IDU and HET between the two study periods, our method revealed significantly increased recent infections among HET and nondecreasing recent infections among IDU. Inno-Lia based recency assessment can identify covert recent changes in HIV transmission frequency. Its regular application should improve HIV surveillance. As viral diversity does not influence outcome, the method should remain stable despite changing frequency of B and non-B clades.

schupbach.jorg@virology.uzh.ch

2.4.Diagnostics & Monitoring Tools aimed at hard-to-reach populations

PE2.4/1

CNS Toxoplasmosis as HIV Associated Opportunistic Infections

Ksenia Goidenko[1], Maksym Krasnov [2], Vladymir Kozko[3], Margaryta Krasnova[4]
Kharkov National Medical University Ukraine[1 2 3 4]

Introduction: Toxoplasmosis is the most common cerebral mass lesion encountered in HIV-infected patients, and its incidence has increased markedly since the beginning of the AIDS epidemic. The prevalence of seropositive persons is 30-60% of the urban adult population. There are occasionally unusual appearances of CNS toxoplasmosis that make diagnosis by standard imaging techniques difficult or impossible. Therefore there are some clinical problems in diagnosis of such lesion.

Aim: Researching of clinical, immune and morphologic

sings of CNS toxoplasmosis in patients with AIDS.
Material and Methods:
We investigated 72 patients with HIV stage III-IV, which were referred in ICU of Infectious Clinic of Infectious Disease (Kharkov, Ukraine) in period 2003-2008. Patients underwent MRI, CT for diagnosis CNS toxoplasmosis. Clinical and laboratory investigation performed under clinical guidelines for HIV/AIDS (WHO 2007).

Results: The main course of hospitalization patients with AIDS were in 48% patients pulmonary diseases (tuberculosis 61%, pneumocystis carinii pneumonia 15%, bacterial pneumonia 22%, CMV-pneumonitis 2%), in 38 % cases reviled CNS diseases, end stage of liver diseases and severe diarrhea 12% and 2% respectively. Toxoplasmosis was diagnosed in 54% patients with CNS diseases. All patients with CNS toxoplasmosis had gradual diseases onset with appearance of subfebrile temperature, headache and focal neurological symptomatology. Patients referred in infectious hospital on 14±5.7 day of disease. In 25% cases patient had not been aware of HIV positive status, HIV-infection was diagnosed firstly in hospital. In process of deterioration of patients condition neurological deficit increased and patients had unconsciousness and in 30% rigid neck. Tonoclonic convulsions were found in 50% cases. Neutrophile leucocytosis in WBC was shown in 50% patients. Level of CD 4 lymphocytes is equal to 70±15.8 cell/mm ($p<0.05$). Typical changes in CSF were significantly elevated level of protein (3.5±1.2 g/L, $p<0.05$), lymphocytic cytosis (30±15.6 cell).
CT scans of the brain showed single (40%) or multiple nodular lesions. Administration of contrast medium, CT scan studies demonstrated thin-walled cavitating lesions with ring enhancement. Edema of the surrounding white matter was often depicted as well. 75% nodules were located in the basal ganglia, but others are scattered throughout the brain at the gray matter–white matter junction. Lesions occured within the cerebellum, brainstem, and spinal cord. When the dose of contrast agent was doubled and CT scanning is delayed, the detection rate significantly improves. Toxoplasmosis was the most common cerebral mass lesion encountered in HIV-infected patients. There were occasionally unusual appearances of CNS toxoplasmosis that make diagnosis by standard imaging techniques difficult. The advent of MR spectroscopy increases the ability to differentiate between various CNS lesions.
Early prescription of antimicrobials for treatment with antiretroviral therapy led to improvement of clinical condition in 12% patient in other cases had bad outcome.
At histological research revealed diffuse damage of various structures of a brain, subcrustal nucleuses and cerebellum. There were one or two main necrotic focuses. The focuses of necrosis exceed more 2 cm in diameter, had no clear boundary. Constant sing were diffuse sites of a infarcts of brain in different fart far from the main focuses of necrosis. Necrosis was filled by toxoplasma cysts and they were found in different parts of a brain.

Conclusions: CNS toxoplasmosis gradually develops in AIDS patients with CD 4 count <80 cell/mm and specific clinical pictures of focal neurological deficiency. The characteristic sign of CNS toxoplasmosis is the asymmetric target sign, which is detectable on both CT scans and MRIs, although MRI is more sensitive.
zventakharkiv@rambler.ru
Contact Phone: +380509443012

PE2.4/2
Comparative study of a new HIV combo screening assay with enhanced sensitivity.
Tatiana Ulanova[1], Irina Shsripova[2], Elena Baranova[3], Vladimir Puzyrev[4], Anatoly Burkov[5], Maria Ievina[6], Anna Obriadina[7]
RPC "Diagnostic Systems" Russian Federation[1 2 3 4 5 6 7]

Background: Early HIV detection is a key to safeguard the blood transfusion. The goal of the study was to assess the ability of “DS-EIA-HIV-AGAB-SCREEN” to reduce diagnostic window period.
Methods: A total of 30 seroconversion panels, dilution series of 1st international reference reagent were tested to evaluate the sensitivity of the new assay. To investigate the ability to detect different HIV-1 subtypes the commercial SeraCare Life Sciences (375 West St., West Bridgewater, MA 02379, USA) world wide performance panel WWRP 302 (M) were tested. Results were compared to data of further state of the art CE-marked HIV antigen/ antibody combination assays, HIV antibody assays and HIV p24 antigen tests.
Results: The lower detection limit of “DS-EIA-HIV- AGAB-SCREEN” assay for HIV-1 p24 ANTIGEN 1st international reference reagent was calculated to be 0.5 U/ml. Thus the sensitivity of the best ÑÅ marked HIV combination tests makes 4-2 U/ml. The new assay showed a statistically significant better sensitivity in seroconversion panels to the compared tests. Compared to nucleic acid amplification techniques, detection of HIV infection by “DS-EIA-HIV-AGAB-SCREEN” assay is on average only delayed by about 3,4 days. Compared with most sensitive HIV combo assays “DS-EIA-HIV- AGAB-SCREEN” identified infection relative to NAT by a mean of 1,21 day earlier (maximum 13 days). The assay demonstrated good enough specificity and sensitivity along with broad subtype detection. The “DS-EIA-HIV- AGAB-SCREEN” detects all major HIV-1 subtypes including subtypes A, B, C, D, E, F, G, B/D, as well as group O and HIV-2 type. The specificity of the test was evaluated with samples of unselected blood donors (n=5000), clinical patients (n=200) and potentially cross-reacting specimens (n=100) and was equal 99.6 %.
Conclusion: The assay performance represents the “state-of-the-art” technology for serologic blood screening of HIV infection. “DS-EIA-HIV- AGAB-SCREEN” combo assay can significantly reduce the diagnostic window.
tlstk@yandex.ru

PE2.4/3
HIV-testing among high risk groups in Estonia
Aljona Kurbatova[1], Valentina Ustina[2], R.David Parker[3], Kristi R[4]
National Institute for Health Development Estonia[1 4], West-Tallinn Central Hospital Estonia[2], University of South Carolina Estonia[3]

Background . Early HIV-diagnosis is important both because of the prevention and treatment. In Europe it is estimated that approximately 30–50% of HIV-infected people are not aware of their status. In Estonia where stigma related to injecting drug use (IDU) and homosexuality is high, people at risk for HIV may hesitate to access health care services and therefore do not benefit of early diagnosis. To increase HIV-testing new models have been implemented in many countries where HIV-testing is offered outside health care system, in community-

based organizations. The aim of the current pilot project was to study the knowledge and behavior related to HIV-testing and possible barriers to HIV-testing among IDUs and visitors of gay-oriented clubs (club) and pilot HIV rapid testing in harm reduction sites that provide syringe exchange (SEP) and clubs.
Methods. In spring 2008 opportunity for HIV rapid testing was offered to the visitors of one SEP and three clubs in Tallinn, capital city of Estonia. For the subjects the study participation consisted of filling up a self-administered questionnaire for sociodemographic data and HIV-testing behaviors, HIV knowledge data collection and a HIV-test using Determine HIV-1/2 (Abbott) rapid test system.
Results. Participants:

The number of people recruited was 200 in SEP and 126 in clubs. Participation rate was 97.6% in SEP and 73.7% in clubs. Mean age of participants was 26.6 years in SEP (SD 6.4) and 30.4 years in clubs (SD 10.9). Proportion of female was 16.5% in SEP and 39.7% in clubs.
Previous HIV testing:

Proportion of participants ever tested for HIV was 54.4% (95% CI 47.5–61.3%) in SEP and 50.8% (42.1–59.5%) in clubs. The most common place for previous HIV-testing was specific anonymous voluntary counseling and testing site also known as AIDS Counseling Center (36% SEP and 42% club visitors). Main reason for previous HIV-testing was a desire to learn if they had been infected (49% club and 35% SEP visitors). Main reasons why people had not done HIV test earlier included lack of time (23% SEP visitors), lack of convenient opportunity (20% SEP and 17% club visitors) and no obvious need for testing (25% club visitors). Participants, who knew somebody who was HIV-infected, had more likely tested for HIV earlier: 74% versus 37% among IDUs ($p<0.0001$) and 64% versus 26% among club visitors ($p<0.0001$).
Preferences of HIV testing:
49% SEP visitors preferred fingertip testing and 22% venous blood analysis. 30% of club visitors preferred fingertip and 22% venous blood analysis. Main reasons for preferring rapid testing were its lower invasiveness and immediate result. People who preferred whole blood analysis considered this method more reliable.
Rapid testing results: Proportion of participants testing positive for HIV antibodies was 29.0% (95% CI 22.7–35.3%) in SEP. Nobody was tested HIV-positive in clubs.
Conclusions. Offering HIV-testing in community-based organizations and using rapid testing is one possibility to reach at-risk populations and increase the number of HIV-infected people who are aware of their status.
aljona.kurbatova@tai.ee
Contact Phone: +3726593975

PE2.4/4
Improving diagnostics of TB/HIV co-infection in GFATM project in Ukraine
Eugenia Shyrokova[1], Olena Wagner[2]
All-Ukrainian network of people living with HIV/AIDS Ukraine[1 2]

Diagnostics of TB co-infection in HIV-infected patients is a problem for many countries hardly hit by HIV and TB epidemics. Wide spread on extra-pulmonary forms of TB that are hard to detect, lack of diagnostic technologies and laboratory consumables, lack of trained and committed staff, and general miscoordination of two vertical systems – HIV and TB care – lead to significant underreporting of TB among HIV patients and high related mortality in Ukraine.

While developing Ukraine's round 6 grant proposal to GFATM the working group included a component on improving TB diagnostics among HIV+ patients that come for care to AIDS centers. Providing screening tests, lab consumables and plastic containers for sputum samples to HIV treatment facilities is a large part of that component that has been implemented in the 1st phase of the project with the intention to ease access to TB diagnostics for HIV patients. The goods provided included: sputum collection cups, applicators, containers for transportation of diagnostic materials, kit for establishing of sensitivity of TB micro-bacteria to TB 1st line treatment, consumables (tubes,7 ml with MGIT medium), test for express screening of extra-pulmonary TB-immunochromatographic method.

Now that the usage of the consumables and coverage with diagnostic services have been reported the impact does not seem to be sufficient or any significant. First, the final diagnosis still has to be signed off by a phthysiatrician and still requires referring a patient to another treatment facility. Second, phthysiatricians often lack means and skills to diagnose extra-pulmonary forms of TB that are very prevalent among HIV+ patients. Third, TB screening tests that are based on serology principle of detection do not show sufficient effectiveness in immunologically compromised patients.

Therefore the decision was made by the program implementation group to reprogram this component and channel funds to cover other diagnostic techniques for HIV + patients, such as: biopsy (with paying for surgical kits, means of protection and surgery), CT scan, MRI and others. The idea is to reserve a quota of CT and other complex diagnostic services for HIV patients by paying these services through grants to regional diagnostic facilities and procuring necessary consumables that will be distributed through the AIDS centers network.
shyrokova@gmail.com
Contact Phone: +380934777700

PE2.4/5
Sexual behavior and other HIV risk factors among female sex workers in Ukraine
Tetiana Saliuk[1], Olga Varetska[2], Tetiana Petrenko[3]
International HIV/AIDS Alliance in Ukraine Ukraine[1 2], KIIS, Ukraine[3]

Background: Ukraine is recognized by UNAIDS/WHO to have the most severe HIV epidemic than any other country in Europe. The estimated number of people living with HIV is 440,000, which constitutes 1.63% of adult population. The most vulnerable populations where epidemic is concentrated are female sex workers (FSW), injecting drug users, and men having sex with men. Country surveillance system is developed well enough and includes sentinel surveillance among all risk groups. Sentinel surveillance among FSW has been conducted since 2002. The first linked bio-behavior study was done in 16 cities in Ukraine.

Methods: Study was conducted in 16 cities with total sampling of 1619 respondents. Different sampling strategies were applied for different cities: Respondent driven sampling (RDS) – 6 cities; time location sampling (TLS) – 10 cities. Female persons aged over 14, who

practiced commercial sex during last 90 days, were eligible for the study. Study protocol and questionnaires were reviewed and approved by the ethical committee. Aggregated data was analyzed with the use of SPSS. Regression analysis was done to assess HIV risk factors.

Results: The majority of FSW was 18-29 years old (73%), 56% unemployed and 13% were students. Most FSW were single (55%), and 9% - married. The average age of first commercial sex episode was 16 years. The average number of clients per week - 13; data is ranged in different cities from 4 to 26. Among all respondents 20% are current injecting drug users and 10% had this experience in the past. Risky behavior: 88% used condom during last intercourse, 62% always used a condom during last 30 days. For 25% of women sex without a condom is acceptable in case of extra money. 15% of those who injected drugs, shared syringes during last injection. Overall HIV prevalence was 17% (38% among those who injected drugs, vs. 8% of those who never used drugs. Significant HIV risk predictors: injecting drug using, years of being involved in commercial sex, unprotected intercourses and acceptability of sex without condom.

Conclusions. Female sex workers in Ukraine are at high risk to be infected with HIV. Despite the fact that the majority of population reported a safe behavior during last intercourse, the permanent behavior is more risky. Among all FSW there is a part, mostly represented by injecting drug users, who are at double risk. Preventive interventions have to be targeted at both subpopulations and their clients.

tetyanas@gmail.com

PE2.4/6

Simultaneous determination of HIV-retrotranscriptase inhibitors zidovudine, stavudine, lamivudine and nevirapine in human plasma by micellar electrokinetic chromatography

Alain Gras[1], Michel Yegles[2], Serge Schneider[3], Jean-Claude Schmit[4], Carole Devaux[5], Robert Wennig[6]
CRP-Sante Luxembourg[1 4 5], Laboratoire National de la Sante Luxembourg[2 3 6]

Background: Capillary electrophoresis (CE) has become a valuable analytical tool for determination of drugs in biological matrices. It is fast, versatile and uses only very small sample amounts. Several studies have already been published regarding the quantitation of antiretroviral (ARV) drugs in plasma. However, no studies have so far been done for the simultaneous detection of lamivudine (3TC), stavudine (D4T), zidovudine (AZT) and nevirapine (NVP). In this study we developed a micellar electrokinetic chromatography (MEKC) method to separate these four ARV drugs and applied it to plasma specimens from six patients.
Materials and methods: Sample preparation was done using solid phase extraction (SPE) technique. One mL of plasma was basified and passed to OASIS HLB columns. The extracts were taken up in 100µL of methanol and centrifuged at 11000 rpm for six minutes. The upper layer was then evaporated and taken up in 10µL of methanol/ water (1:1, v/v) for CE analysis.

Separation was performed on a Beckmann Coulter P/ACE MDQ CE System. An uncoated fused-silica capillary with a total length of 55 cm and an inner diameter of 75 µm has been used. The MEKC factors that affect the separation, such as buffer pH, surfactant concentration (sodium dodecyl sulfate, SDS), organic solvents, applied voltage and capillary temperature were optimized. Buffer consisting of 5 mM sodium tetraborate adjusted at pH 9.8 with boric acid, containing 50 mM SDS, 30 % (v/v) methanol and 5 % (v/v) ethanol was found to be suitable for the separation of the drugs. Methaqualone was used as internal standard (I.S.). Detection of analytes and I.S. was performed at a wavelength of 230 nm. It was observed that both the drugs and I.S. were migrated within 19 minutes at the applied voltage of + 30 kV. The capillary temperature used for optimal drug separation was 27°C.Validation of the method was performed in terms of linearity, accuracy, precision, limit of detection (LOD) and quantification (LOQ).
Results: An excellent linearity was obtained in the concentration ranges 0.2 to 3.2 µg/ml for 3TC, AZT and D4T and 0.5 to 8 µg/ml for NVP. The detection limits for 3TC, AZT, D4T and NVP were found to be 0.059, 0.028, 0.069 and 0.025 µg/ml, respectively. With the exception of interday repeatability, all validation parameters were within the acceptation limit. Recovery of drugs in spiked plasma samples were >90%. In the electropherogram no interfering peaks were observed in the region of analytes and I.S. due matrices in plasma. In order to get optimal results a new calibration was done every day. Our method was successfully applied to determinate the four HIV-retrotranscriptase inhibitors present at therapeutic concentrations in human plasma specimens from six patients.
Conclusions: Our optimized MEKC method combined with solid phase extraction has shown to be an accurate method for simultaneous detection and quantification of therapeutical concentrations of 3TC, AZT, D4T and NVP in human plasma samples.

alain.gras@crp-sante.lu
Contact Phone: +52 26 97 03 19

2.5. Expanded HIV screening

PE2.5/1

Performance of V3-based HIV-1 serotyping in HIV endemic areas

Daniela Bernasconi[1], Michele Chiappi[2], Claudio Galli[3], Barbara Suligoi[4], Lara Tavoschi[5], Cissy Kityo[6], Barbara Ensoli[7], Stefano Butto[8]
Istituto Superiore di Sanita Italy[1 2 4 5 7 8], Abbott Italy[3], Joint Clinical Research Center
UG, Uganda[6]

Objectives. Investigation on HIV subtypes distribution is essential for the knowledge of the epidemic spread. In developing countries and, in particular, in sub-Saharan Africa, which is the hardest-hit region, the extreme HIV heterogeneity is a major obstacle for both the evaluation of the impact of antiretroviral therapies and the development of an effective vaccine against HIV/AIDS. Since serotyping has been proposed as a rapid, simple and inexpensive method for the study of the geographical distribution of various HIV-1 strains, we investigated the performance of this assay in Uganda, a geographical area with high HIV endemicity.
Methods. We examined 148 repository HIV positive serum samples (EIA+WB) from 118 Ugandan individuals. For all the 118 participants the date of seroconversion was estimated as the midpoint between the last negative and the first positive HIV test; the interval between the two tests was <180 days. Serum samples were assayed for HIV-1

serotyping by performing two different indirect Enzyme Immunosorbent Assay (EIA) approaches which use synthetic V3 peptides derived from the sequence of the V3 region of the envelope glycoprotein gp120 from different HIV-1 subtypes. In addition, we evaluate the avidity of antibodies to HIV antigens by means of the Avidity Index (AI) assay recently developed by our group (1).
Results. Of the samples tested, 84 (57%) were classifiable for subtype at least with one of the two methods, with a subtype distribution in agreement with studies previously conducted in Uganda. To the remaining 64 sera (43%), it was not possible to assign a subtype, as they resulted not-typeable when tested with both V3-EIA techniques. When V3 typeable and not-typeable sera were related to the known seroconversion dates, 76% of specimens collected within two months from seroconversion were not-typeable; in contrast, all the samples from the individuals seroconverted since more than 8 months resulted typeable. Therefore, when we related the results obtained from the serotyping to the AI values, we observed that the majority of not-typeable sera showed low AI values.
Conclusions. The results clearly show a low performance of HIV serotyping in specimens collected few months from seroconversion date and reasonably suggest a correlation between the feasibility of serotyping and the immune response maturation. The observation has been further confirmed by the correspondence between serotyping and AI values, which can be considered a marker of the maturation itself. Therefore, despite the serotyping is a rapid, inexpensive and easy to perform method to routinely monitor subtypes distribution in particular in developing countries, our results suggest a limited applicability of this approach especially in those geographical areas characterized by a high HIV endemicity.
1) Suligoi B. et al, J Clin Microbiol 2002; 43(11):4015-4020.
lara.tavoschi@mrc.ac.za
Contact Phone: +27 21 938 0440

PE2.5/2

Lessons from Pilot Phase of Voluntary Counseling and Testing for HIV and Hepatitis B and C Service Delivery in Moldova

Iurie Climasevschi[1], Lucia Luca[2], Stefan Gheorghiu [3], Silvia Stratulat[4], Alden Nouga[5],
Prevention of HIV and Hepatitis B&C Project, USAID/ Emerging Markets Group Moldova[1] [2], Ministry of Health, National AIDS Control Program Moldova[3] [4], Pathfinder International United States, United States[5]

Background: Moldova completed analysis in April 2008 of pilot Voluntary Counseling and Testing (VCT) services in 6 centers from December to March funded by USAID. 26 additional VCT centers will be established in 2008 through the Global Fund. This presentation describes findings from services to over 950 clients.
Methods: Key pilot activities:
- establishing national VCT working group
- approving VCT legal framework with training/M&E tools, funding mechanisms
- training Trainers, Counselors, and Supervisors
- offering VCT services in 6 centers
- monitoring quality, data collection, and referrals

Following pilot implementation, the VCT Working Group, USAID, Ministry of Health, and National AIDS Program held a workshop with Counselors, Supervisors, and Managers to discuss successes and challenges, and recommendations for expansion.

Results: The findings of the workshop included the following successes and challenges
Successes:
• Counselors developed capacity, systems, and awareness by starting with pregnant women, pre-marital couples, and travelers.
• Demand increased through launches, mass media, collaboration with schools, churches, police, and family doctors, and partner/anonymous testing promotion.
• Confidentiality/privacy improved, and Counselors emphasize informed consent.
• Centers have data forms and database.
Challenges:
• Family Doctors/Specialists don't refer because they do counseling and blood collection referral.
• Low post-test counseling results from lab delays and clients getting results directly.
• Counselors don't have training to address the needs of Injecting Drug Users or trafficked women.
• Confidentiality is limited by names on confirmatory tests.
• Counselors lack skills in explaining HIV and Hepatitis transmission and treatment differences, discussing intimate topics, and demonstrating condom use.

Conclusions:
The following recommendations were made for the expansion of VCT services:
Counselors/Supervisors:
• establish community service linkages
• encourage vulnerable group clients to refer peers/partners
• have free condoms
• ensure privacy, confidentiality, non-judgment reputation
• give condom demonstrations and counseling
VCT Site Managers:
• establish health facility referrals norms orders
• establish multi-disciplinary committees for coordination
National AIDS Committee/Ministry of Health:
• organize update trainings
• ensure VCT data collection tool approval for systematic use after revision
• establish data feedback system
Contact Phone: +6174120746

PE2.5/3

Lessons learned in 22 years of follow-up of Health Care Workers with Accidental Exposure to biological materials at Instituto de Infectologia Emilio Ribas, Sao Paulo, Brazil

Esperanca Santos Abreu[1], Maria Eugenia Lemos Fernandes[2], Marta Ramalho[3], Nilton Cavalcante[4], M L Moretti[5]
Instituto de Infectologia Emilio Ribas Brazil[1] [2] [3] [4], Universidade Estadual de Campinas Brazil[5]

Background: Instituto de Infectologia Emilio Ribas (IIER) is the largest hospital for the assistance care, and treatment of HIV/AIDS patients in the Brazil. Since 1983, the institution cared for approximately 25,000 AIDS patients. Since 1985, HIV antibody testing is performed in Health Care Workers HCWs with accidental exposure (AE).
Methods: From 1985-2007, 6,274 cases of AE to biological materials were followed-up by the Infection Control Unit (ICU) of IIER. During the period 1985-1997 there were no standards at IIER for how long a HCWs with AEs should be followed-up. In 1996, the ICU started to provide free anti retroviral therapy to all HCWs with AE, according to national guidelines and recommendations.

Results: 80% of the accidents occurred among female HCWs, particularly nurse-aides (NA) working in the wards. The primary biological material involved was blood. Most accidents were classified as self-accident (40%), and inadequate disposal was responsible for 15% of the overall accidents. The major constraints identified follow-up were abandon (45%) and ARV side-effects (47%). Four professionals presented seroconvertion: two for hepatitis B, and two for hepatitis C. No seroconvertion for HIV was identified among the 6,274 cases analyzed. However, anxiety was lower when PEP started to be available.
Conclusions: 1. The majority of the accidents occurred among nurse-aides responsible for the administration of medication to the patients. These professionals need to receive continuous education; 2. emergency and intensive care units concentrate the higher number of the accidents, thus demanding more training from the ICU; 3. despite counseling, the abandon of follow up is common among HCWs with accidents. Side-effects of drugs were the most important complaint of HCWs that received PEP; 4) despite the large number of AEs, no seroconvertion for HIV was identified.
silasbar@terra.com.br
Contact Phone: +55 11 31547056

PE3.1/1
Socio-Economic-Cultural Realities and HIV/AIDS Vulnerability: A Study on Street-Based Sex- Workers of Rajshahi City of Bangladesh.
Pradip Kumar Panday
University of Sheffield United Kingdom
Background: Although the infection rate of HIV/AIDS among the general mass and even among the high risk group is not very high in Bangladesh like the African countries, however, due to the socio-economic-cultural and other risk factors, a typhoons might hit the country anytime. Among the high risk groups, injecting drug uses (IDUs) are the highest number to be infected with HIV/AIDS (7.1%). However, the infection rate among the sex-workers, the second largest group, has crossed over 1% in the country. Due to social taboo regarding sex related conversation, illiteracy, poverty, women disempowerment, marginalize position of women, violence against them, patriarchal social system and religious emotions make the street based sex-workers really vulnerable. Considering the related factors, this paper is an attempt to discuss the socio-economic-cultural issues that make the street based sex-workers really vulnerable to HIV/AIDS.
Methods used: In the process of conducting the study, Rajshahi City was selected as the case. One hundred street based sex-workers were interviewed from April, 08 to May 09. The samples were selected randomly due to the taboo nature of the topic as well as the difficulty in identifying the samples. More than 25 street based sex-workers from each thana (there are four thanas in the city corporation area) were selected.
Results: The result of the research shows that more than 90% of the sex-workers come to this profession due to their poverty. Moreover, there are several other reasons such as violence, divorce, rape and others that compelled them to take this profession. This segment of population is really risky for the transmission of HIV as they seldom use condoms as to protect themselves from HIV/AIDS. Less than 40% of the respondents used condoms during the last seven days of the interview period although the clients turn over rate is more than 4 a days for almost 80% of the sex-workers. Moreover, less than 30% of the respondents used to have their HIV test in the last year although it is free in most of the clinics and hospitals. The result also shows that street based sex-workers are really vulnerable in the rapid expansion of HIV/AIDS and suddenly the prevalence rate can cross over the epidemic level which might be disastrous for the poor country.
Conclusion: The high physical visibility but hidden socially pose some grave problems that make SWs really vulnerable for the transmission of HIV/AIDS. Besides being a pointer to the moral and legal system, the present existence status of SWs can be a serious threat to the society. Their low status makes them incapable of negotiating with their clients. The destiny of CSWs, in relation to their vulnerability to HIV infection depends mostly on safe sex behaviours and the use of condoms. It is difficult to control HIV/AIDS if the sex-workers do not have any control over their bodies and if the relative power base of a male counterpart is higher than that of a sex-worker. For this reason, awareness building, employment and empowerment of sex-workers are necessary to control HIV/AIDS effectively.
Telephone: 0044-07907128619

PE3.1/2
Scaling-Up of Opioid Substitution Treatment in Custodial Settings - Evidence and Experiences
David Marteau[1], Heino Steover[2]
Head of section - Substance misuse Department of Health / Offender Health United Kingdom[1], Fachhochschule Frankfurt Germany[2]

Problematic drug use (mainly opioids) is a widespread phenomenon in almost every prison in the world. The EMCDDA estimated in 2006 that the life time prevalence of injecting drug use among all prisoners in Europe is between 7 % and 38 %, which shows that the spread of problematic drug use is varying widely throughout countries within the continent. The prevalence of intravenous drug use in prison shows a similarly wide differential, varying between 1-15%, prevalence of HIV among prisoners varies from 0.5 to 20%. Prevalence differs again from one prison to another within individual countries. Drug use is seen as one of the main problems of the health of prisoners (re HIV and HBV/HCV acquisition) and the current prison system; it threatens security measures, dominates the relationships between prisoners and staff, and leads to violence and bullying for both prisoners and often their spouses and friends in the community.
Although the prevalence and frequency of injecting drug use declines in prison compared to rates outside prison, drug use inside prisons tends to be more dangerous, with more risky injecting behaviour, due to the scarcity of drugs and sterile injecting equipment. While many prisoners discontinue or significantly reduce their drug use when entering the institution, others continue their use, or may even start injecting opiates.
While opioid substitution treatment (OST) has become standard practice in community drug treatment services in many European countries, featuring methadone, buprenorphine or slow release morphine maintenance as the primary clinical response to heroin dependence, the implementation of OST in custodial settings in most European countries is still lacking behind the prevalence standards and quality of the treatment provision in the community.

Recent studies indicate that opioid substitution treatment initiated in the community is most likely to be discontinued

in prisons. This often leads to relapse both inside prisons and immediately after release, often with severe consequences as high mortality rates after release from prisons indicate. Many studies show benefits of OST for the health and social stabilisation of opioid-dependent individuals passing through the prison system.
History and the processes of scaling up of OST in prisons in England are taken as examples from which key prerequisites and lessons learnt can be derived for the increase of OST in other countries.
David.Marteau@dh.gsi.gov.uk
Contact Phone: +49 1621334533

3.1 Drug Use, Sexuality and HIV-protection/risk behaviour

PE3.1/3
Recreational drug use and HIV-protection behaviour in people living with HIV/AIDS
Sibylle Nideroest[1], Daniel Gredig[2], Christophe Roulin[3], Martin Rickenbach[4]
University of Applied Sciences Northwestern Switzerland, School of Social Work, Olten Switzerland[1 2 3], Swiss HIV Cohort Study Data Center, University Hospital, Lausanne Switzerland[4]

Background. During the past years, the HIV-protection of people living with HIV/AIDS (PLWHA) gained in attention (positive prevention). In the light of the Swiss Statement on the risk of sexual HIV transmission by PLWHA receiving successful antiretroviral therapy, being adherent and living in steady relationships, the focus is on the identification of factors that increase risk behaviour with casual partners. In this context, we assumed recreational drug use to be a predictor of risk behaviour. Indeed, there are few data about recreational drug use in PLWHA. Therefore the following contribution determined firstly, the prevalence of recreational drug use; and secondly, the impact of this drug consumption on condom use in a population of PLWHA in Switzerland.
Methods. For data collection, an anonymous, standardized, self-administered questionnaire was used. Sampling was based on the seven HIV outpatient clinics associated with the Swiss HIV Cohort Study. Drug use was assessed by one multiple answer question concerning the use of party drugs, cannabis, amphetamine, heroine and cocaine during the past six months prior to the survey. Data were analyzed by using descriptive statistics stratified by gender and sexual orientation and a logistic regression analysis controlled for age, gender and sexual orientation.
Results. Among the 734 respondents were 23% women (n=169), 23% (n=171) heterosexual men and 54% (n=394) men who have sex with men (MSM). About 77% (n=562) had been infected by sexual transmission. Mean age was 45 years (Range 19-78). About 83% (n=606) received antiretroviral therapy whereas in 79% (n=481) of them virus was undetectable. Thirty-two % (n=233) used recreational drugs. Whereas MSM mostly used party drugs (67%, n=87), women and heterosexual men more often consumed cannabis (73%, n=75) and heroine (46%, n=47). Thirty-nine % (n=284) had sex with a casual partner within a period of six months and in 62% (n=181) of these contacts a condom was used consistently. The logistic regression analysis shows that the use of recreational drugs decreases the condom use with casual partners (OR=0.36, CI 95%), independently of age, gender and sexual orientation of the PLWHA. Also viral load had no impact on condom use. In drug-users, only about 49% (n=54) had always used a condom with casual partners, whereas 68% (n=119) of the non drug-users reported consistent condom use (Chi-Square=14.83, p<.001).
Conclusion. Recreational drug use is quite frequent in PLWHA. The substances used differ in MSM, heterosexual men and women. Drug use seems to play an important role for risk-behaviour with casual partners. More than half of the sexual contacts of recreational drug-users were unprotected. Health care providers and HIV-counsellors should talk with their clients about recreational drug use and inform about the risks for their protection behaviour with casual partners. Further research is needed to identify predictors for recreational drug use in PLWHA.
s.nideroest@gmx.ch

PE3.1/4
Predictors of condom use in HIV-positive men having sex with men. Testing the Information-Motivation-Behavioural Skills Model
Sibylle Nideroest[1], Christiana Noestlinger[2]
University of Applied Sciences Northwestern Switzerland, School of Social Work, Olten Switzerland[1], Institute of Tropical Medicine, Department of Clinical Sciences/Health Promotion, Antwerp Belgium[2]

Background The Information-Motivation-Behavioural Skills Model (IMB) assumes that HIV protective behaviour is essentially influenced by three factors: (1) information relating to HIV preventive behaviour, (2) motivation to perform HIV preventive behaviour and (3) behavioural skills needed to apply or implement the HIV preventive behaviour. The study identified the explanatory power of these predictors for condom use with casual and steady partners in a sample of HIV-positive men who have sex with men (MSM) in Europe.
Methods. For data collection, an anonymous, standardized, self-administered questionnaire was used. Study participants were recruited consecutively at the HIV outpatient clinics associated with the Eurosupport Study Group and the Swiss HIV Cohort Study. Data were analysed by using descriptive statistics stratified by gender and sexual orientation. To identify predictors of condom use backward elimination regression analyses were performed.
Results.In total, 1549 persons living with HIV/AIDS (PLHA) from 14 European were surveyed. About 56% (n=838) were MSM. Their mean age was 44 years ranging from 18 to 85 years. Almost 88% (n=733) acquired HIV-infection through sexual transmission. About 71% of the MSM (n=596) were on antiretroviral medication, in 84% (n=502) of them the virus was undetectable.
About 44% (n=367) of the MSM reported at least one sexual contact with a steady partner and 49% (n=414) had sex with a casual partner in the past six months prior to the survey. Mean numbers of HIV-negative casual partners was 4.12, of HIV-positive partners 6.14 and of casual partners with unknown HIV-status 12.06. Fifty-six % (n=204) always used a condom with steady partners, with casual partners 57% (n=236).
High self-efficacy (Beta=0.26) and subjective norm in favour of condom-use (Beta=0.21) increased actual condom use with casual partners, whereas feeling depressed decreased condom use with casual partners (Beta=-0.11). Condom use with steady partners was influenced by self-efficacy (Beta=0.13) and subjective norm (Beta=0.31). HIV-specific factors like the HIV-status of both partner types had an impact on condom use (Beta=-0.14

resp. -0.22), resulting in less condom use with HIV-positive partners. Behavioural skills were influenced by motivation to use condoms with casual and steady partners. Self-efficacy as an important component of motivation was influenced by less perceived vulnerability (Beta=-0.10 resp. -0.11), higher subjective norms (Beta=0.13 both) and more positive attitudes to condom use and safer sex (Beta=0.44 resp. 0.45). No effect was shown for variables of the construct information. Neither personal, economic, cultural nor social resources had an impact on behavioural skills or condom use with casual or steady partners.
Conclusion.Condom use with steady and casual partners was not consistent in this sample of European HIV positive MSM. The IMB-model constructs appeared to be valid, even though not all the model predictors could be determined as hypothesized. Besides the original IMB constructs, HIV-specific variables like mental health and sexual partners' serostatus explained condom use in HIV-positive MSM.
s.nideroest@gmx.ch

PE3.1/5
HIV prevention program implementing experience in prisons, Russia
Elena Feodorova[1], Takhir Mirzoev[2], Tatyana Evlampieva[3], Zlatko Kovac[4]
Russian Red Cross Russian Federation[1], International Federation of Red Cross and Red Crescent societies, Regional Office for Belarus, Moldova, Russia and Ukraine Russian Federation[2 3],
International Federation of Red Cross and Red Crescent societies Hungary[4]

At present, there are 43,788 registered people living with HIV in the penal system in Russia. That is about 10 percent of all HIV cases registered in Russian Federation. Comparing HIV prevalence among civil society and penal settings it is 0.7 – 1.8 % of civilians against 4 % of inmates. Moreover, accumulating the most vulnerable and marginalized population, penal system became a kind of filter: by way of it nearly 7,000 HIV cases are detected each year.
These data clearly shows the necessity of HIV prevention, care and support in penitentiary system.
The goal of the research is to estimate the awareness of inmates and prison staff in HIV for developing the HIV prevention program in prisons. The objectives of the research were:

- to estimate the awareness of target groups about ways of transmission and self protection;
- to estimate the risk behavior of target groups;
- to define the services needed by target groups.

The research conception supposed two stages: baseline research at the beginning of the program and control one after year and a half of program implementation. The program is implemented by Russian Red Cross (RRC), International Federation of Red Cross and Red Crescent Societies in collaboration with Federal Service for Sentence Execution (FSSE).

The research tool kit included formalized interview 25 minutes long for inmates and prison staff. The interviews were collected by RRC staff and sent to the analyzing organization. Data input, processing and analysis was done by mean of SPSS- Syntax.
The baseline research showed following:

- High stigma towards people living with HIV;
- Misconceptions regarding HIV transmission (diagnosis by appearance, saliva);
- False ideas about protection and safe practice (contraception, to have sex with familiar people);
- Inmates have a more tolerant attitude towards HIV positive individuals (50%).

According these results, HIV prevention seminars for inmates and penitentiary staff were developed. 139 peer instructors trained on "Peer education" conducted seminars for 5,395 inmates. 413 people from prison staff were reached by HIV prevention seminars. After that the second stage of the research came, which showed following:

- sources of information changed essentially: targeted groups began to use reliable sources of information about HIV more often;
- the awareness about HIV raised, but some false ideas remain stable (the mosquitoes bites);
- inmates still underestimate the risk of HIV transmission be means of personal hygienic goods;
- specialists of penitentiary settings underestimate risk of transmission HIV and STIs by sex;
- inmates attach importance to simplicity and plainness of information and confidential atmosphere.

Conclusions: The research allowed to adopt HIV prevention methods to penal system, make necessary corrections during the program and develop effective replicable model of HIV prevention in penal system.
feodorova@redcross.ru
Contact Phone: +79031208544

PE3.1/6
HIV prevention trainings among youth in Estonia by Association Anti-AIDS
Ljudmilla Priimägi
NGO Estonian Association Anti-AIDS Estonia

Background: to prevent HIV among youth at risk; to develop skills of safe behavior in relation to HIV infection.
Methods: interactive trainings in schools (incl. vocational schools) and youth summer camps; peer education trainings. The work is mainly targeted to North East Estonia that is a region with a high HIV prevalence. Trainings last for 4 hours and include the following:
• talk to peers and partners about sex and sexuality and how to say NO,
• understand his/her own and others' feelings related to sex and sexuality as well as identify prejudices,
• increase self-esteem,
• estimate his/her own risk for sexually transmitted infections, incl. HIV,
• healthy behavior: safer sex, not using illegal drugs or safer use of drugs,
• tolerance and support for people living with HIV and AIDS,
• where and how to get help.

Results: During last five years the Association carried out nine interactive training projects involving more than 13 000 young people. Thanks to the work of our and other NGO`s, schools, mass-media and information campaigns organized by the National Institute for Health Development, the awareness of young people has significantly increased. Percentage of young people aged 15-24, who answered correctly three questions about HIV, increased from 53% in

2003 to 82% in 2007. However, consistent condom use with a non-regular partner during last twelve months changed only a little - from 46% in 2003 to 50% in 2007. We should realize that long-lasting effect could be achieved only with continuous HIV prevention and sexual health education.
Young people are a diverse group with a widely divergent risk of getting HIV. Youth not injecting drugs and not having sex with (former) injecting drug users are at a low risk. More at risk are those who do inject drugs or have sex with someone who has injected drugs.
Based on WHO estimates, we hope that HIV/AIDS epidemic in Estonia is decreasing as the incidence has decreased yearly, especially among teenagers. Age of newly infected people has increased from 15-19 to 20-29 and older. About half of newly infected people are injecting drug users.

Conclusion: Estonia has had remarkable development in HIV prevention during last years; however there are issues to be concerned about, including the decrease of funding during an economical crisis. Injecting drug use remains widespread in Estonia and there is a threat of HIV is being sexually transmitted from drug users into general population. As a result we should put more stress on work with people over 20 years in addition to work with youth and risk people. Important is also support of people, living with HIV/AIDS.
ljudmilla.priimagi@tai.ee
Contact Phone: +372 6 5939 50

PE3.1/7
Chemical bodies: use and abuse of drugs in a specific sub-group of HIV-positive MSM diagnosed with acute hepatitis C
Jean-Yves LE TALEC[1], Annie VELTER[2], Christine LARSEN[3], Francoise LINARD[4], Elisabeth DELAROCQUE-ASTAGNEAU[5],
CERTOP-SAGESSE UMR 5044, University of Toulouse 2-Le Mirail France[1], Institut de veille sanitaire, Saint Maurice France[2 3 5], Tenon Hospital, APHP, Paris France[4]

Since 2000, a rise in acute hepatitis C has been reported among HIV-positive men who have sex with men (MSM) in Europe. Most of these cases do not report the usual HCV risk of transmission related to drug injection. However, a frequent use of recreational drugs during sex has been described in this population. In the context, the French HEPAIG study aims to evaluate the incidence of acute hepatitis C in 2006 and 2007. A qualitative study was added, in order to better describe the circumstances associated with HCV infection.
A random and proportional probability sample of 115 medical wards was constructed according to the number of HIV cases in MSM reported to the French surveillance system. Acute hepatitis was defined as a positive anti-HCV antibody test or HCV PCR within one year of a documented negative test. Enrolled MSM underwent two successive semi-structured interviews, focusing on their social and medical history (including treatments), their sexual practices, and on the circumstances associated with HCV diagnosis.
Among the 86 included MSM, 31 were interviewed twice between October 2006 and March 2008 at an interval of 6-8 weeks. Aged 33 to 58 years, most of these men self-identified as gay, and lived in major cities in very diverse social contexts. They have been HIV-positive for an average of 10 years and have undergone their anti-HIV treatment as part of their daily routine. All respondents reported numerous sexual contacts with multiple casual partners. Sexual practices were commonly unprotected including receptive anal intercourse and/or fisting. Most of the respondents used various recreational drugs during sex (e.g: poppers, gamma-hydroxybutyrate, cocaine, ecstasy, methamphetamine …). In addition, some used sildenafil or taldafil as sexual stimulants. Many had been prescribed with psychoactive pills (e.g: antidepressant) before and/or during anti-HVC treatment. Some mentioned inhalation and sharing straws, but never refered to injecting drugs. A majority of respondents knewthat
HCV-transmission is associated with “drug injection”, but not with “gay sex”: few thought they were at risk of HCV infection through unsafe sex. They did not question their use of
“party drugs” and never described themselves as “drug addicts”.
Concerning their medical treatments (occasional and lifelong) and drug abuse, these men
lived in a “chemical flood” and sometimes described their bodies as drenched in and
transformed by chemicals. Participants were trusting pharmaceutical technology and taking advantage of any medical prescription, or any illegal use based on practical knowledge. Their sexuality was highly medicalized in a paradoxical way: they aimed to increase their pleasure and reduced possible harm by any chemical means, but relativized the risks and denied the constraints related to drugs and unprotected sex.
This study demonstrates how far recreational drugs and treatments have become
commonplace in this sub-group of HIV-positive MSM. In addition to sexual prevention,
Public Health should focus on risk reduction with regard to recreational drugs use and abuse, and sensitize the medical staff about those practices in order to raise awareness of any addiction among this sub-group of MSM.
jylt@free.fr

PE3.1/8
Public health on the edge: The development of guidelines for the management of persons with behaviour that presents a risk for HIV transmission
Matthias Wentzlaff-Eggebert[1], Ann Koehler[2], Dean Gloede[3]
Department of Health of South Australia, Australia[1 2 3]

Highly publicised cases of alleged intentional or reckless behaviour resulting in infection of others with HIV have sparked media attention as well as national and international debates on the tensions between public health, the rights and responsibilities of the individual and criminal law. High-profile prosecutions and a culture of blame threaten to undermine principles of shared responsibility for safe sexual and injecting behaviour and fuel discrimination against people living with HIV/AIDS. Following media attention to high-profile cases and parliamentary scrutiny of public health authorities in several States and Territories of Australia, national and jurisdictional guidelines have been reviewed, changes to public health legislation proposed, and the role of primary care in managing behaviour redefined.
In such times of heightened public fear of disease, rational public health responses are under pressure. The challenge for public health authorities is to strengthen public confidence and at the same time protect the core principles of successful responses to HIV/AIDS – the involvement and leadership of affected populations, enabling

environments, voluntary testing and counselling, access to treatment and access to the knowledge and means of prevention. The primary concern cannot be how to identify and defer 'difficult' cases to law enforcement, but how to respond to non-intentional HIV risk behaviour as one manifestation of vulnerable lives lived on the frayed edges of the societal safety net. Nowhere else is the fundamental importance of a partnership approach in the response to HIV thrown into sharper relief.

This presentation shows one jurisdiction's systematic response to this challenge. It builds on core principles of an ethical and sustainable public health response, integrating national policies and protocols, partnerships with the HIV case management patients themselves, HIV clinicians, People Living with HIV/AIDS (PLWHA) organisations, police as well as health, social and welfare services. The South Australian response aims to align support for individual resilience with firm behavioural boundaries and public health imperatives with compassionate care. The algorithm of this public health HIV case management system is illustrated using examples based on real cases.

matzdean@adelaide.on.net
Contact Phone: +61 8 82267298

PE3.1/9

Behavioral suveillance survey with a biomarker component among injecting drug users in Kutaisi, Georgia

Tea Tsagareli
Save the Children Georgia Country Office Georgia

Background: Georgia is categorized as having a low prevalence HIV epidemic. In its early stage HIV epidemics in Georgia showed similarities with the epidemics in most Eastern European countries with injecting drug use being the major transmission mode. As of January 2009, injecting drug users (IDUs) represented 60% of all cases with a known route of transmission. Tracking trends in HIV prevalence, HIV knowledge, attitudes, and risk behaviors in most-at-risk populations is of utmost importance for countries with low or concentrated HIV epidemics. For this purpose carrying out behavioral surveillance surveys (BSS) in selected segments of a population is highly recommended as it provides early warning system, alerting policymakers and program managers to emerging risks of spreading HIV/AIDS.
In 2007, Save the Children Georgia Country Office with its local partner organizations conducted BSS with a biomarker component among IDUs in Kutaisi, the second largest city of the country. The BSS was accomplished within the framework of the USAID funded STI/HIV Prevention (SHIP) Project in Georgia. The Goals of the BSS were: to assess gaps in HIV knowledge; identify risk behaviors among IDUs making them particularly vulnerable to HIV infection; to provide specific epidemiological and behavioral data on the target group; to better plan targeted interventions and evaluate outcomes.
Methods: The BSS used a chain-referral method of respondent driven sampling (RDS). In total, 200 IDUs were recruited. After consenting, all respondents were surveyed and tested voluntarily on four infections: HIV, Syphilis, hepatitis B and C. After the screening, all positive test-results were tested with confirmatory methods: Western Blot was used for confirmation of HIV, Hepatitis B and C infections; and Treponema pallidum hemagglutination assay (TPHA) and Syphilis Immunoglobulin G test was used for confirmation of syphilis-antibody positive samples. All survey data was analyzed by using the Statistical Package for the Social Sciences (SPSS) software program.
Results: Two respondents out of 197 tested were diagnosed with HIV (1%); the prevalence of Hepatitis C reached 58%; seven percent tested positive on hepatitis B, and 4.5% - on syphilis. More than half (54.5%) reported using contaminated needle/syringe at some time; 91% of IDUs who had injected in the last week had done so with shared equipment. Only 15% of IDUs who had regular sexual partners reported using a condom at last sex with their regular partner. Condom use at last sex with occasional sex partner was 50%; and condom use at last sex with FSWs reached only 75%. Ninety-eight percent of IDUs reported having heard about HIV, however only 7% could correctly answer six key questions on HIV transmission. Sixteen percent of respondents reported having done HIV test.
Conclusions: Multiple behaviors are putting IDUs at risk for HIV infection: sharing contaminated injecting equipment and other paraphernalia; inconsistent condom use with occasional sex partners and female sex workers; low HIV awareness; high prevalence of syphilis, etc. Hepatitis C prevalence was found alarmingly high. BSS findings should guide future strategies for HIV national response as they provide evidence-based information on the areas that need continued focus.

mzia@savechildren.ge
Contact Phone: +99577744080

PE3.1/10

Social Science and Public Health/ Drug Use, Sexuality and HIV-protection/risk behaviour

Takhir Mirzoev[1], Elena Feodorova[2]
International Federation of Red Cross and Red Crescent Societies, Regional Office for Belarus, Moldova,Russia and Ukraine Russian Federation[1], Russian Red Cross Russian Federation[2]

Background.The number of HIV–infected people in Russia increases in geometric proportion every year. The HIV epidemic is Russia is known for its cultural aspects, population's negative attitude towards the HIV and AIDS issue, low awareness, irresponsible attitude towards self-protection and a tendency to adopt risk behavior. Lately, the increasing number of HIV infections among youth population at the age of 12 to 28 years was reported. The information on HIV and AIDS available to the youth students of Krasnodarsky krai is insufficient. In order to address this issue, an assessment of HIV and AIDS awareness and attitudes of Krasnodarsky krai (Belorechensky district and Sochi) youth was carried out.
Purpose. To assess HIV and AIDS awareness of the youth students in Belorechensk district and Sochi, Krasnodarsky krai.
Approaches. The Belorechensk district and Sochi RRC regional branches, with the financial support from the American Red Cross, are currently implementing the HIV prevention program targeting youth students. The program was launched in July 2008 and will continue until June 2009. Randomly selected students were asked to fill in a questionnaire. The total number of survey participants was 170 people, ages 14 to 21 years old, including 120 male (70.6%) è 50 female (29.4%) students.
Findings. The majority of survey participants were aware of the modes of HIV transmission and the ways of HIV prevention: 78% students knew that HIV could be transmitted through using non-sterile injecting equipment, 54% knew of possible transmission through breastfeeding

and 63% knew that condoms should be used for preventing HIV transmission.
At the same time, 52% survey participants said they would treat HIV –positive people 'just like the others', 24% expressed concerns about communicating with HIV-positive people, 14% said they would rather avoid HIV-positive people and 10% gave no answer to this question.
Conclusion. Despite relatively high HIV prevention awareness of the youth students, a thorough and comprehensive analysis of the survey findings needs to be carried out. This will help designing HIV prevention programs and reducing stigma and discrimination of HIV positive people.
takhir.mirzoev@ifrc.org
Contact Phone: +7 (499) 126-15-66

PE3.1/11
Risk behaviors and risk factors to HIV among prisoners in Serbia
Maja Krstic[1], Zorica Terzic[2], Tanja Knezevic[3], Ivan Ivanovic[4]
Institute of Public Health of Serbia Serbia[1], Medical Faculty, University of Belgrade Serbia[2], Institute of Public Health of Serbia Serbia[3] [4]

Background: Prisoners in Serbia are one of the population groups vulnerable to HIV as it's defined by National Strategy Combating HIV/AIDS. According to specific environment in prisons, the aim of the research was to assess factors that could lead to risk/protective behavior of prisoners.
Methods: The cross-sectional research was conducted during the years 2006 and 2007 in 16 prisons in Serbia as a part of the seven baseline surveys realized by the Institute of Public Health of Serbia within the Ministry of Health of Serbia Project "Scaling up the National Response to HIV/AIDS by Decentralizing the Delivery of Key Services " funded by Global Fund to Fight AIDS, Tuberculosis and Malaria. The total number of representative sample of prisoners was 861 (96 female and 766 male). The prisoners were older than 18 years. The specific design questionnaire was used to assess the risk factors and behavior among prisoners. The categorical variables are expressed as frequencies/percentages.
Results: Among prison population, the most present risk behaviors were: smoking, drug use, non-sterile needle use and unprotected sex. Smoking prevalence in prisons was 67,5%, with 85,4% of those who smoked 20 and more cigarettes per day. A total of 41,1% prisoners had been tattooed, from whom 21,8%, was tattooed in prison, while 14,7% did not use sterile needle. Marihuana/hashish was the most commonly used drug among prisoners (40%) followed by cocaine/heroin (28,7%) and ecstasy/speed/LSD (23,7%). Intravenous drug users (IDU) represented 13,8% of the prisoners. They gained that experience in the age of twenties. Among a total number of IDU prisoners, 5% of them used drugs intravenously the first time in the prison, 12,6% consumed it in the last three months, while 39,5% shared syringe/needle at least once in their life. A large number of prisoners (41,6%) considered that it was possible to get drugs in prison. During the last 12 month, majority of the prisoners (72,2%) had sexual relationships, while 65,2% of them had a regular partner. Over 16% of the prisoners had sexual relationships with non-regular partner during prison servitude (3 partners in the average). Over 40% of the prisoners reported that they had never used condom with regular partner, while as with the non-regular partner 4,1% of prisoners never use a condom. The most common way of getting a condom for prisoners was in the supermarket or booth, than in pharmacy and through family and friends. Majority number of the prisoners (90,6%) was aware of HIV/AIDS, but only 20,5% of them gained enough knowledge about disease.
Conclusion: It is important to recognize the risk behavior related to HIV especially among the prison population as a vulnerable population. The most of risk behaviors and risk factors to HIV were present among Serbian prison population. Results of the research suggest that there is a strong need for implementation of the main principles of National Strategy Combating HIV/AIDS in prisons as well. Prevention programs should be focused on risk behaviors and the importance of social and health policies targeted the prison population.
belamaja@hotmail.com
Contact Phone: +381644333857

PE3.1/12
Changes in at-risk behaviour for HIV infection among HIV-positive persons
Laura Camoni[1], Vincenza Regine[2], Anna Colucci[3], Ivano Dal Conte[4], Monica Chirotto[5], Vincenzo Vullo[6]
Epidemiology Unit, Department of Infectious Diseases, National Health Institute. Rome, Italy[1] [2] [3], Infectious Diseases Department, Amedeo di Savoia Hospital and University, of Turin, Italy[4] [5] ,
Department of Infectious and Tropical Diseases[6]

Background. In Western countries, the success of antiretroviral therapy has led to a progressive increase in the number of persons living with HIV infection , who may constitute a source of infection for other persons. Several studies have indicated that many seropositive persons continue to engage in at-risk behaviour. The objective of the present study was to compare the behaviour of HIV-positive persons before and after diagnosis of HIV infection, so as to analyse any changes. In particular, we attempted to determine whether the diagnosis of HIV infection leads to a change in sexual and drug-using behaviour.
Methods. We conducted a cross-sectional study involving five clinical centres in five Italian cities. Each centre was asked to enrol 100 persons aged ≥18 years who had a diagnosis of HIV infection that dated back at least 2 years. Data were collected with a specifically designed questionnaire, administered during a structured interview. The test for paired data (McNemar 2 test) was used to compare the data before and after the diagnosis of HIV infection, in order to identify any changes.
Results. A total of 487 persons participated in this study (65% males; median age 40 years, interquartile range: 34-45 years).
The most common exposure categories were: heterosexual contact (43%), homosexual contact (27%), injecting drug use (21%).
There was a statistically significant decrease ($p<0.001$) in the use of all drugs after diagnosis: use of heroin decreased from 55% to 32%, use of cocaine decreased from 50% to 30%, and cannabis from 70% to 47%. Nonetheless, of the 138 persons who reported injecting drug use, 60% continued to use injecting drugs after diagnosis, and about half of these individuals engaged in syringe exchange even after having become aware of being seropositive.
Regarding sexual behaviour there was a significant decrease ($p<0.001$) in the number of sexual partners after diagnosis: the proportion of those who reported having had more than 2 partners decreased from 83% to 54%. Of the

participants, 82% declared that they had had occasional sexual contact before diagnosis, whereas this percentage decreased to 58% after diagnosis (p<0.001). After diagnosis, there was a significant decrease (p<0.001) in the percentage of persons who never (or not always) used a condom with their stable or occasional partner though the specific percentage varied (range: 20-70%) according to gender and to the specific sexual practice. Specifically, the percentage of males who never (or not always) used a condom during oral-genital sex with an occasional partner decreased from 79% before diagnosis to 47% after diagnosis (p<0.001).
Conclusion. These results indicate that though at-risk behaviour seems to decrease after the diagnosis of HIV infection, seropositive persons continue to engage in at-risk practices: intravenous use, syringe exchange and at-risk sexual behaviour. These results constitute important information for developing prevention activities to safeguard the health of HIV-positive persons and the public overall.
vincenza.regine@iss.it
Contact Phone: +390649902273

PE3.1/13
Need for a holistic approach to sex work and drug use
Licia Brussa, TAMPEP International Foundation, TAMPEP Network Netherlands

TAMPEP (European Network for HIV/STI Prevention and Health Promotion among Migrant Sex Workers) was founded in 1993. It operates a community development and participation model that is rooted within the human rights framework, and seeks to lay a foundation for equitable access to support and services for sex workers. TAMPEP is an international networking and intervention project focused on assessing the situation of sex work in Europe and on developing appropriate responses to reduce sex workers' vulnerability to HIV and sexually transmitted infections.
TAMPEP is a network of sex work projects that covers 25 countries in Europe. The regular mapping of sex work in Europe has enabled the monitoring and reporting of the changing trends within the sex industry and the living and working conditions of sex workers. TAMPEP's experience and knowledge has been utilised to elaborate and promote a holistic vision of principles and practices for HIV prevention among sex workers.

The 2008 TAMPEP European prostitution mapping results have shown that the context of sex work has changed considerably. Europe has witnessed a rapid transformation in the sex industry and it continues to evolve with every change in legislation, public policy and law enforcement. We have witnessed an increasing diversity of sex work settings and geographic spread of sex work; a stratification of sex workers, with national sex workers forming the majority in Central and Eastern European countries and migrant sex workers forming a majority in North and Western European countries; significant levels of drug use and dependency, particularly among outdoor based sex workers; and local and foreign criminal elements seeking to control of sex work. These and other factors all contribute to varying degrees of vulnerability to HIV/AIDS among sex workers. The overlap between drug use and sex work is significant increase across Europe.

Drug dependent sex workers vulnerability is exacerbated by the double stigma and potential criminalisation as both a drug user and a sex worker; drug using sex workers who inject face an additional risk of HIV infection if they use non-sterile injecting equipment.
The stigma and discrimination they face is exceptionally intense and keeps them from accessing key health and education services.
The disproportionate levels of violence experienced by both indoor and outdoor based sex workers and the failure of the law to protect sex workers from violence has been identified across Europe as a major factor in increasing sex workers vulnerability, particularly those who have no legal status or are directly criminalized.

Taking into account the above mentioned facts and the new reality of prostitution, we need urgently the developing holistic strategies on interventions covering different areas: HIV/STI prevention, health promotion, harm reduction., legal and social framework and human rights protection. A broad spectrum of community based initiatives, directed at empowerment of drug using sex workers and in reducing vulnerabilities to HIV/AIDS, can have a major impact on primary prevention inasmuch as it allows sex workers more scope in their contractual position with clients, brothel owners and pimps.
info@tampep
Contact Phone: +31 20 6926912

PE3.1/14
What do the US Census Bureau databases on HIV/AIDS tell us about HIV/AIDS in Lithuania and former Soviet states of Eastern Europe?
Wayne X Shandera
Baylor College of Medicine United States

Purpose: To analyze the HIV/AIDS outbreak in the former Soviet states of Eastern Europe using databases on HIV/AIDS, in order to ascertain trends among at-risk groups.
Method: The HIV/AIDS data for 7 areas or nations (Belarus, Estonia, Latvia, Lithuania, Moldova, Western Russia, and the Ukraine) were analyzed and collated, the risk factor groups compiled into workable categories, and trends were assessed for two common at-risk groups (drug users, patients with sexually transmitted infections (STIs). Data were analyzed using STATA (6.0).

Results: The US Census bureau showed a total of 1166 studies between 1987 and 2006 with the largest number from the Ukraine (470). 46% of all studies were from drug using populations or STI clinic attendants. The overall mean prevalence in all studies was 6.14% but 17.7% among drug users with the latter values most prominent in studies from the Ukraine (mean, 22.5%), Western Russia (20.6%), Belarus (15.4%) and Latvia (11.9%). Trends showed the highest growth rates for the outbreak in the Ukraine, Western Russia, and Latvia (first-order slopes, 1.94, 1.40, 1.07 respectively). Drug using populations showed the highest increases and were particularly prominent in the Western Russian cities (most studies were from St Petersburg, but highest rates were reported from Kaliningrad and Tver), the Ukraine, Latvia, and Estonia (slopes, 3.5, 3.16, 2.24, and 2.22, respectively) with considerably lower rates in Moldova, Belarus, and Lithuania (slopes, 0.98, 0.72, and 0.14, respectively). Among STI clinic attendants, only Western Russian studies showed significant increases (slope 1.82). Among pregnant women, the limited number of studies showed decreases in the Ukraine (slope -0.15) and increases in Belarus (0.74) and Western Russia (0.52).

Conclusions: The HIV prevalence data from the former Soviet states of Eastern Europe show that the drug using populations show the highest prevalence and the highest increases through time. The outbreak is highly localized and prevention efforts need be directed toward specifically impacted communities. The group showing successful control in these studies is pregnant women in the Ukraine.
Graph: Prevalence among drug using populations in Belarus, Latvia, Ukraine, and Western Russia.
shandera@bcm.tmc.edu

PE3.1/15
Sexual risk taking and HIV testing among MSM in Romania
Tudor Kovacs[1], Anca Serbanescu[2]
Population Services International Romania[1], Mercury Research Romania[2]

The survey addresses men who have sex with men (MSM) in Romania and is intended to serve as a tool for health programming. It provides baseline data on key behaviours related to HIV prevention among MSM, such as: consistent condom usage, ever getting tested for HIV and factors related to MSM opportunity, ability and motivation to adopt safer behaviours. The aim is to determine significant differences between individuals with specific behaviours, with respect to the rationale that interventions aimed at addressing these differences will have a greater likelihood of changing risk behaviours.

Considering that the target population is hard-to-reach, data collection was completed in two phases – one using snowball sampling over telephone interviews and the second with convenience sampling over an online questionnaire. The questionnaire consists of about 60 items that cover socio-demographic data, the level of exposure to the gay scene, health related behaviours (condom usage, HIV testing) and DALY (Disability Adjusted Life Year, Murray, Lopez, 1996) measurement questions. Collected data was examined through univariate statistics and reliability analysis for health and risk awareness issues combined with social and peer support.

In terms of risk awareness, the survey showed medium values for using condoms with regular partners and HIV testing, whereas consistent condom use with casual partners is significantly high. This confirms the hypothesis that high trust between regular partners must be taken into account in interventions design. Moreover, with social norms more favourable to using protection for casual sex, a general belief exists that most MSMs are having safe anal intercourse. In addition, MSM reported a high STIs and HIV knowledge level, with a key indicator being personally knowing an HIV infected person. Finally, in terms of determinants, HIV testing is reported as neutral behaviour, while condom usage is influenced by subjective norms, self-efficacy and motivation.

Due to the general social norms, MSM might be highly exposed when having unprotected sex with regular partners, perceiving themselves to be in monogamous relationships. The belief that MSM are generally safe is another factor to be considered by interventions. Subjective norms are more strongly related to condom use than social norms are and must be taken into consideration for future interventions, regardless of the dificulty to address sensitive issues, such as the influence of what MSM believe about their partners, peer support for condom use and self efficacy and motivation. The study also outlined the intention to use condoms as an important step in behaviour change, alongside the strong need for social support, justifying further inquiry into what drives the intention. In case of HIV testing, knowledge related factors and social support are the main drivers of the desired outcome.
webbie@psi.ro

PE3.1/16
the drugs consummation and the spread of hiv in conflict areas. A case of study (the african great lakes region)
ISSA ISSANTU TEMBE[1], ANTHONELLA MUANZA BANACINY[2]
GREENVILLE COLLEGE, ILLINOIS, USA United States[1], UNIVERSITY OF KINSHASA Congo[2]

The Great Lakes region of Africa is hit by several cross-border conflicts. In these territories in war and within the absence of surveillance, drugs are circulating freely and are consumed. The greatest consumers of these legal drugs (tobacco, alcohol, and sleeping pills of any kind) and illegal (marijuana, heroin, morphine) are the armed men recruited into the ranks of armed groups. Under the effects of these drugs, these men engaged in weapons are committing mass rapes of women of all ages. It's proved that the drug consummation is directing those criminals to use the rap as a war weapon. Our field's investigation shows that 20 to 30% of women raped by armed men are infected with HIV and / or sexually transmitted infections of all kinds. From there, we are able to establish a link between the war, drugs and the spread of HIV in conflict areas. Our hypothesis is showing a basic link between those three elements. They are interrelated and connected. The war is creating conditions for drugs to circulate and be consumed. This drug consummation is stimulating its consumers to lose every control and adopt high-risk behaviors. The two variables (war and drugs) are participating to the spread of HIV. This presentation is an advocacy for all the victims of war crimes in the Great Lakes region, who are living with HIV. The main objective of this study is to reveal to the link between the war, drugs and HIV. Built like a collection of witnesses, this communication has been followed by a long field's investigation among 2862 victims of rape in the Eastern Congo-Kinshasa. Some of the victims confirmed us that they never have had a high-risk sexual behavior before the rape. The certification of illness after the rape is proving that the first contact with the HIV virus has been made through the collective rape they were victims. It seems clear that the rape is one of the ways the HIV is spreading itself in war areas. This study tries to present the problem of rape and HIV. The care for rape's victims is also part of the issues addressed in this presentation. On top of that, we try to suggest some solutions to eradicate this scourge.
issantu@gmail.com
Contact Phone: +1-217-649-2876

PE3.1/17
New Approach of Prophylactic Work with Vulnerable Groups of IDUs
Tetyana Loginova
Kyiv City Narcological Hospital "Sociotherapy" Ukraine

Problem. Under unstable political situation in Ukraine HIV incidence continues to rise dramatically among vulnerable

groups of population (one of them are injection drug users (IDUs).
Given the deterioration of epidemiological situation and in lieu of the projects implemented in Ukraine through the Global Found grants, a National Program to combat HIV/AIDS was developed in Ukraine aimed at covering over 50 % of vulnerable groups of population with prophylactic measures by 2011, including harm reduction programs also including substitution therapy.
Solution. 2008 in Kiev, thank to Global Found Grant, was lounged pilot project "Usage of Mobile Ambulance (MA)", where MA is being mini outpatient clinic for vulnerable groups.
One of the most difficult and specific problems of working with injection drug users (IDUs), is their dependence of where and how to get new drug dose, so they rarely go to hospitals or other medical organizations for help.
Non-governmental organizations of Kiev, funded by Charity Foundation International AIDS Alliance in Ukraine, made territorial division of the city, organized days and hours for duty of the MA to the places, where IDUs get together.
Working schedule of the MA includes daily voluntary counseling and testing (VCT) consultations and testing on HIV with rapid tests (RT): 5 times a week as well as 2 times overnight with gynecologist, including RT on sexual transmitted infections (STI).
All examinations, consultations and tests are being provided free of charge.
Participants of the program get syringes, condoms, alcohol pads and informational booklets free of charge.
Conclusion. 1. Using Mobile Ambulance (MA) increases availability of the medical help for vulnerable to HIV-infection group.
2. This way of the organization allows to increase work intensity as well as yield; thus, amount of consulted people increases to 2-3 times in comparison with stationary lieu.
3. Using RT has increased the VCT importance as the tool of HIV prevention:
- have given the ability to provide results during first client's visit for counseling and enrollment into intervention programs (Harm Reduction program, adherence to ARV treatment program etc.)
- bigger number of HIV-positive persons has been identified for appropriate treatment and social support.
The above measures will help to curb the spread of HIV/AIDS among IDUs and to improve their quality of life.
t_logynova@ukrpost.net
Contact Phone: + 38 044 253 53 09

PE3.1/18
Modelling the impacts of anonymous syringe sharing on HIV diffusion: implications for network focused prevention
Lindsey Richardson[1], Thomas Grund[2]
Nuffield College, University of Oxford, United Kingdom[1,2], British Columbia Centre for Excellence in HIV/AIDS, Vancouver, Canada[1]

Background and Objectives: Networks have long been established as crucial to understanding the diffusion of HIV among injection drug users (IDU), predicting both individual risk behaviour and who becomes infected with HIV. However, methodological limitations, such as poor data quality, the difficulty of modelling change over time and the possibility of anonymous transmission have been identified as serious obstacles to more robust research in this area. This paper proposes the use of agent-based models (ABM) as a reasonable strategy to both address these methodological limitations and to facilitate faster and more strategically designed prevention efforts. The paper explores in particular how anonymous injection environments, such as shooting galleries, impact the diffusion pattern of HIV among IDU.
Methods: Existing data on the network structure and injection practices of a network of 767 IDU in Bushwick, Brooklyn are used to calibrate a series of agent based models that simulate the diffusion of HIV through the network. Simulations over a 48 month period account for the impact of network structure, individual injection practices, and anonymous injections in shooting gallery environment to identify potential areas for intensified prevention efforts.
Results demonstrate that network structure and network-specific variation in individual injection practices significantly impact HIV diffusion. Models further show that accounting for anonymous injections is important in two ways. First, anonymous injections increase the speed of diffusion across the network. Second, shooting galleries have the greatest impact on the people that are the least connected, as they increase HIV incidence rates not for the core, but for the periphery of the network.
Conclusions/Implications: ABMs allow for the modelling of shooting galleries as a social environment that operates independently of the formal structural ties in a network, and addresses some of the methodological challenges of network based analyses of hidden populations such as IDU. In this instance, shooting galleries among IDU are shown to be unobservable transmission vectors that link otherwise unconnected components of the network. The omission of anonymous transmission from prior models of HIV diffusion may result in misunderstandings of injection dynamics among IDU that have implications for prevention efforts.
lindsey.a.richardson@gmail.com
Contact Phone: +44 (0) 7961 288 831

PE3.1/19
Cruising for sex: masculine sexual socialization and its impact on risk managing
Laurent GAISSAD, Belgium

Background: Open air sexualized spaces provide men with homosexual opportunities typically reducing the risk to be identified or the necessity to identify oneself as gay, the experience's double property being to be accessible and to remain secret. However, this contextual homosexuality cannot be reduced to the mere "escape" effect in sexual conducts researchers in social sciences have underlined, more than ever in the times of **AIDS.**
Objectives: To illustrate the construction of masculinity. To analyse the idea of a "masculine" socialization to desire and sexuality and evaluate its impact on HIV risks.
Methods: Long term ethnographic surveys in public spaces dedicated to cruising for sex in the South of France and Catalonia (1995-2005), and ethnomethodological in depths interviews. Building of dynamic spatial and temporal frames of cruising for sex venues in urban contexts, and models of face-to-face social interactions.
Results: The challenge to masculinity as a heterosexual privilege sometimes assumed is in fact contradicted by our observations showing that, conversely, cruising-for-sex relies on its very rituals, and rather tends to emphasize them in face-to-face interactions: in the field, virile attitudes may actually be valued as possibly related to exotic and discrete heterosexuality; multi partnership is always interpreted as a performance – even for "bottoms" despite

their stigma in the macho codes; the constant search for new "tricks" both expands the cruising territory and guarantees collective secrecy; though silent, sociability is mostly cordial and remarkably consensual in a context however often presumed to be dangerous.
Conclusions: Reasons to analyze these men-to-men interactions as a masculine form of sexual socialization will be discussed in relation to HIV risk taking and serosorting. Also, the anonymity of such encounters in urban environments will be confronted to shared secrecy within narrow groups of acquaintances in rural zones, where the masculine "sexual culture" determines access to men only public spaces for sex more overtly, along with a (potentially violent) permanence from a generation of men to the other.
lgaissad@ulb.ac.be Contact Phone: +32 488.243.901

PE3.1/20
Factors associated with being HIV positive in drug users attending treatment centres in Portugal
Leonie Prasad[1], Lucas Raquel[2], Henrique Barros[3]
Faculty of Medicine of the University of Porto Portugal[1 2 3]

Background: The Klotho programme (named after a Greek goddess) began at the end of 2006, with the aims of detecting HIV through the use of rapid tests and promoting methods of prevention of acquisition of HIV in persons attending drug treatment centres across mainland Portugal. This study describes characteristics of and factors associated with testing HIV positive in those drug users, presenting to the centres and completing the associated questionnaire, for the first time between October 2006 and October 2008
Methods: Patients either completed a standardised questionnaire, together with a trained interviewer, or gave consent to the responsible clinician to complete the questionnaire on their behalves. Collated questionnaires were returned to the department of Hygiene and Epidemiology at the University of Porto where data from them were entered into a computer. Missing information was requested directly from clinicians by telephone or written letter. Baseline characteristics are described using frequencies and percentages for each category. The multivariable analysis was done controlling simultaneously for a series of variables. Odds ratios (ORs) are reported, together with their 95% confidence intervals (CI). P-values were calculated from likelihood ratio tests.
Results: A total of 3344 participants were included in the analysis. The majority (1626, 49%) were <35 years of age, males (2706, 81%) and attended centres in the North of Portugal (1120, 33%). Forty-seven percent (1559) did not report any injection drug use (IDU) compared to 33% (1090) who did report IDU. Both heroin and cocaine were the most commonly reported drugs ever used (69% for both). Eighty percent did a rapid HIV test and 5% (174) were confirmed HIV positive. Fourteen persons (0.42%) were both HIV-1 and HIV-2 positive. In terms of hepatitis co-infections, around 8% (262) were positive for antibodies to hepatitis C virus and 4% (126) had antibodies against hepatitis B virus, most of whom reported IDU, at 81% and 67% respectively.
We found an association of testing HIV positive if drug users were seen at centres in the Lisbon region (OR 1.9; 95% CI 1.2
lprasad@med.up.pt Contact Phone: +351 22 551 3652

PE3.1/21
Assessment of the knowledge on HIV/AIDS among university students
Saulius Caplinskas[1 2], Zigmas Nagys[1], Loreta Stoniene[1]
Lithuanian AIDS Centre[1], Mykolas Romeris University[2]

Objective: to asses the knowledge on HIV/AIDS, attitudes and information sources of the university students in Vilnius.

Methods: a survey of 270 students of third-fourth study year using a questionnaire including 46 questions was applied. The respondents included 91 students of Mykolas Romeris (MRU) (33.7%), 92 of Vilnius Pedagogic (VPU) (34.1%) and 87 of Vilnius Gediminas Technical Universities (VGTU), of them 33.3 % male and 66.7% female.

Results. Answers to the five questions attributable to the 13th UNGASS indicator (Young people. Knowledge about HIV prevention) were correct in 37.5% (VPU), 33.0% (MRU), and 24.1% (VGTU) of cases (χ^2*=3,547, ll=2, p=0,170).* Respondents were well aware of their poor knowledge, absolute majority *(*(N=258, 95.6%) admitted to getting insufficient information on HIV/AIDS.

Subjective and objective knowledge assessment proved the correct judgement of the students about their knowledge, i.e. those better aware answered correctly to the questions and vice versa ((χ^2=14.31, ll=3, p=0,003).

Mass media and Internet were chosen as the main information source (57.4%), though the survey let to conclude that those who have received information in the secondary school or university (67.4%, of them 84.8% VPU, 71.4%. MRU and 44.8% VGTU) were best aware about HIV/AIDS (χ^2=33.5, ll=2, p=0.000) proving effectiveness of information got in school. The most desirable information source was internet (29.3%) and medical workers (8.1%).

Assessment of the tolerance level towards people living with HIV/AIDS (PLWHA) showed the direct reliance between proximity and tolerance (56.7% of respondents would accept PLWHA in community, 55.6% - in neighbourhood, 51.5% - in a flat nearby). The least tolerant were students with the worst knowledge on HIV/AIDS (p<0.01)
Conclusions. The most aware about the HIV/AIDS issues were students of the Pedagogical University who received the most information in secondary school or university. The knowledge corresponds to tolerance: better informed students were more tolerant.
Contact information: svietimas@aids.lt

3.2 Prevention: Concepts and Effects

PE3.2/1
Are female injecting drug users (IDUs) more risk taker for contracting HIV than male? A qualitative study in Nepal
Krishna Regmi
University of the West of England, Bristol UK

Background: Nepal is facing increases in HIV prevalence among high risk groups such as sex workers, injecting drug users, men who have sex with men, and migrants. In addition, injecting drug use appears to significantly overlap with commercial sex. It has also been well documented that the proportion of female is more likely to engage with injecting drug and sexual risk taking behaviours than the

proportion of male due to high prevalent of socio-cultural and gender discriminatory practices. In addition to this, females are more vulnerable to take drugs due to depression and those who take drugs may lead to high risk behaviour. This study sought to examine whether females (IDUs) are more vulnerable to HIV than males in the context of Nepal, and to draw general lessons which might help to develop risk reduction strategies in practice.

Method: Between 2004 and 2006, 300 respondents (150 Female and 150 Male) those currently IDUs were recruited using a snow balling technique from six high risk areas (districts) for HIV in Nepal. Information was collected employing a qualitative research method: in-depth interviews and focus group discussions, - included key determinants for risk factors for HIV, as well as the types, sources and frequency of substances used. To aid analysis, qualitative data were analysed using NVivo, version 7 which allows researchers to import textual documents, create themes and code text with the themes.

Results: The overall prevalence of HIV in the study group was 59.4%. Though, gender-wise HIV prevalence was not the case for IDUs, but females were more likely to engage in risk taking behaviours with primary partners, while males were more likely engage in risk taking behaviours in the context of close friendships and casual relationships. More years of addiction (greater for women), tendency to share syringes with strangers (greater for men), history of prostitutions (greater for women) and the cases of prisoners (greater for men) were found the key risk determinants.

Conclusion: Study concludes that male and female IDUs have different risks factors for contracting HIV infection, which depends on the context of socio-cultural and individuals

Topics • 3.2 Prevention: Concepts and Effects

krishna2.regmi@uwe.ac.uk
Telephone: + 44 (0) 1189665066

PE3.2/2

Efficacy of an HIV Prevention Intervention in Increasing Condom Use and its Correlates by Female Commercial Sex Workers in Yerevan, Armenia

Nelli Darbinyan[1], Karine Markosyan[2], Delia Lang[3], Ralph DiClemente[4], Laura Salazar[5], James Hardin[6]
American University of Armenia [1 2], Emory University United States[3 4 5], University of South Carolina, United States[6]

Background: In low HIV prevalence countries such as Armenia, the epidemic appears to be drawn by high-risk groups including female commercial sex workers (FCSW). Consistent condom use is a widely recommended public health strategy to reduce the risk of HIV among this population. Theory-based interventions have resulted in increased condom use in FCSW populations in other low- and middle-income countries. The purpose of this study was to examine the efficacy of a culturally tailored HIV prevention intervention to positively impact condom use with clients and its correlates by Armenian FCSWs.

Methods: A pilot HIV-risk reduction intervention targeting street FCSWs was implemented in Yerevan, Armenia between August 2007 and July 2008. The information-motivation-behavioral skills model, the social cognitive theory and the theory of gender and power were complementary theoretical frameworks guiding the design and implementation of the intervention. A randomized controlled trial (RCT) design was employed to evaluate the effects of the intervention after 6 month following the intervention. The numbers of participants in the intervention and control groups were 54 and 66 respectively. Data were obtained from face-to-face interviews. The scales of the structured questionnaire were derived from underlying theoretical frameworks and from our previous research. Generalized estimating equation models were computed to assess differences between intervention and control conditions resulting in adjusted odd ratios for dichotomous outcomes and adjusted means and mean differences for continuous outcomes.

Results: The proportions of participants who completed the 6-month assessment were 88.9% in intervention condition and 75.8% in control condition. At the 6-month follow-up assessment, participants in the intervention condition were more likely than participants in the control condition to report using condoms consistently with their clients in the past 7 days ($p<.05$), using condoms consistently in general with their clients ($p=.0001$), using a condom at their most recent sexual intercourse ($p=.033$) and applying a condom on their male clients themselves ($p=.0001$). Also, in comparison with participants in the control condition, participants in the intervention reported higher percent condom use (adjusted proportions 95% vs 84%; $p=.0001$), fewer condom use failures (adjusted average number of failures 0.66 vs 1.19, $p=.001$), and fewer condom application errors (adjusted average number of errors 2.03 vs 2.44, $p=.001$), all in the past 7 days. Finally, participants in the HIV intervention reported fewer perceived condom use barriers ($p=.0001$), and had higher condom use self-efficacy ($p=.0001$), and higher HIV knowledge ($p=.0001$).

Conclusion: The intervention succeeded in favorably changing the correlates of condom use and the actual condom use by FCSWs with their clients, which can contribute to the decrease of the risk of HIV transmission among both, FCSWs and their clients. It was one of the first RCTs performed with FCSWs, a difficult to reach population. We recommend further tailoring the behavioral interventions for Armenian FCSWs and scaling them up. Adapted interventions should be implemented and evaluated in other Caucasian nations where commercial sex operates.

markosyan@policy.hu

PE3.2/3

A STUDY OF NEEDLE STICK INJURIES AMONG NON-CONSULTANT HOSPITAL DOCTORS IN IRELAND

Mortimer O'Connor[1], Mark Hannon[2], Daniel Cagney[3], Kenneth Courtney[4], Raymund O'Connor[5], Una Harrington[6]
Cork University Hospital Ireland[1 2], Mercy University Hospital Ireland[3], Bon Secours Hospital, Cork Ireland[4], Mid-Western Regional Hospital Ireland, Ireland[5], South Infirmary[6]

Background: In a time of increasing blood borne infection prevalence and global travelling, NCHDs are thus being exposed to a greater number and wider variation of blood borne infections. Needle stick injuries (NI) are possibly the main route of acquiring such infections from a non-consultant hospital doctors (NCHDs) perspective. This study examines NCHDs experiences surrounding NI, blood/needle handling training received, infection fears and NCHDs demographics.

Methods: A cross-sectional self-administered anonymous questionnaire survey was conducted on 185 NCHDs working in 7 teaching hospitals. HI related information was recorded along with demographics. Ethical approval was prospectively received for the study.

Results: The response rate was 85.4% (158/185). 58% of respondents were medical NCHDs, while 42% were surgical. The mean age was 27.7, with Interns (46%), SHOs (33%) and Registrars (20%) taking part.
58% have experienced a NI with a mean number of 2.77 accidents (range:1-13). Venopuncture (47%) was the commonest type of injury. Only 31% report wearing gloves when dealing with needles or blood products. 37% have had sharps handling training, while 37% have reported their NI to the relevant departments. HIV (60%) followed by HCV (28%) and HBV (11%) are the infection most feared.

Conclusions: As a consequence we conclude that NIs are greater among the surgical NCHDs than the medical NCHDs. The level of disposable glove usage is worryingly poor. Training in sharps handling and in dealing with a NI needs to be addressed. HIV is the blood borne infection most fear of being contracting as a consequence of a NI.
mortimer_o_connor@hotmail.com
Contact Phone: +353863822903

PE3.2/4
Models of prophylactics and control of Sex transmitted infections (STI) in vulnerable to HIV populations.
Dmitry Metlitsky
All-Ukrainian Network of PLWHAs Ukraine

There is certain evidence that persons with STI impact on HIV- prevalence rate by increasing of vulnerability of skin to virus diffusion and infection. This risk is growing up in 2-5 times confirmed by a number of researches. Biomedical mechanism is obvious – inflamed skin cells without any mucilaginous protection could be easily infected by HIV because of unprotected sex.

Operational research has covered social and HIV service projects that deal with commercial sex workers, injection drug users, medical organizations. It was analyzed data on syphilis and honoree testing among vulnerable groups (IDU, MSM, commercial sex workers, prisoners, victims of valance, homeless children) in regions where STI projects exist and compared with region without such programs. Then impact on HIV prevalence in the same groups where estimated. It was analyzed results of questionnaire sheets to doctors and social workers were proposed for studying weak points of STI treatment and prevention.

Effective diagnostics and treatment of STI should be essential part of HIV-programs in all regions of Ukraine. It is necessary develop strategy of STI diagnostic and treatment best responded to the conditions of country's medical and social service environment.

Decentralized services of express STI diagnostics for IDU's, commercial workers, MSM allow growing down risk of HIV-infection. Then people with positive results to be sent to special center in cities for commercial sex workers where they get hygiene services, STI testing, anonymous treatment, syringes exchange points. Consultations about informing sex partners about need to pass testing, free condoms availability, adherence programs, and free treatment allow to cut HIV infection rate from 40 to 50% among vulnerable populations.
md@network.org.ua
Contact Phone: +380934591019

PE3.2/5
NGO CONVICTUS ESTONIA.Work in Prisons
Latsin Alijev
NGO Convictus Eesti Estonia

Convictus Estonia is non-governmental organisation established in 2002. The main goal of Convictus is the support and counselling of HIV-positive people and drug addicts, the considerable effort is put on the work with target group in detention facilities. The typical customer of Convictus is a HIV-positive drug addict detainee or former detainee, with incomplete education, Russian-speaking and often unemployed person.
Since HIV-positive people are facing several problems in their daily life, Convictus considers these different aspects in its activity and deals with the problem of HIV/AIDS multilaterally: psychological and medical counselling, support by solving economic issues, fighting against stigmatisation and discrimination.

Cooperation with governmental, other non governmental and international organisations in the area of implementation of HIV/AIDS prevention is important for Convictus. The aim of Convictus is not to be a sole player but in cooperation with several organisations active in social affairs to provide a help for HIV-positive people to achieve higher living standard as they have today.
Work in Prisons

Convictus Estonia has started its activity in prisons in 2002, and it was the first organisation in Estonia to provide support to HIV-positive prisoners. Convictus formed the first self-help group targeted to HIV-positive detainees in 2002 in Murru prison. At that time among prisoners as well as among prison staff there was lack of adequate information about HIV and HIV related issues - HIV positive prisoners were isolated from others and kept in separate facilities. The separation and prejudices fuelled the stigma and discrimination towards HIV-positive persons. If somebody had been in the seventh block of Murru prison he had got a sign for the rest of his life in prison subculture.

To achieve the target – to increase the life-standard of HIV-positive persons – Convictus started to conduct education seminars about basic facts of HIV/AIDS, its treatment and prevention in prison context for prisoners as well as for prison and health staff. Special emphasis was put on reducing stigma and discrimination and increasing understanding and compassion.
Very effective have been the joint seminars which involved the representatives of prisoners, prison administration and staff, social and medical personnel. The joint seminars have brought together the people who are familiar with the local situation and who have got the professional view of the detainees' problems. As a result the persons from different areas have had the possibility to work out the best solutions for the current problems by sharing their knowledge and ideas.
Convictus Estonia also established strong working relationships with the Estonian Ministry of Justice and Ministry of Social Affairs.
As a result of the work of Convictus Estonia, HIV-positive prisoners were no longer separated from other prisoners

and prison staff stopped using masks and gloves when interacting with HIV-positive prisoners.
From October of 2003 until September of 2007 the activity of Convictus was financed by Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM). The coming of GFATM program enabled Convictus to raise the quality of its services and to start working in other prisons in Estonia. When Convictus began its work, the emphasis was mainly on the HIV-positive prisoners. Step-by-step other health problems in prison environment (hepatitis, tuberculosis) were taken under attention, and the health issues were handled in a more complex way.
During GFATM program 14 016 (the planned number was 14 440) contacts with prisoners were achieved. The number includes the participants of lectures as well as of individual consultations. In the work of support groups participated 767 (the planned number was 580) prisoners.
Group-work

The goal of group work is to provide relevant information, to change the way of prisoners' thinking healthier as well as to develop prisoners' social skills.

In order to improve the service, Convictus established two different kinds of groups – self-help groups and training groups. The goal of self-help groups is to provide basic information and knowledge and to enable interaction between the people with the same interest. Therefore separate self-help groups for HIV-positive drug addicts, juveniles, women wishing to give birth etc are being formed. Training groups were targeted to share and learn the knowledge in a more detailed and systemised way to enable peer education in different social groups. For training groups the learning program with learning materials was compiled.
In group-work, the most essential issue is to build a trusting atmosphere – group members have to learn to trust group leader as well as each other. The employees of Convictus have a good renown among prisoners since they have been working independently from prison staff and government. The widely known independence helps to create the trust among the prisoners – they dare to speak about the issues that really worry them and also what really happens in prisons.
Another crucial issue for effective group work is to get and hold the group members motivated. For maintaining the group members' interest, the adequate communication level and suitable interactive methods have to be used in group work (role plays, different games etc).

The establishment of trusting atmosphere and effective work of groups requires from group leaders lots of empathy, dedication and sense of mission.

Consultation Service

In addition to group-work Convictus offers consultation service about medical issues (infectious diseases, antiretroviral treatment) and drug addiction. The consultation service was established in order to provide sufficient and adequate medical knowledge to detainees. In prisons there are working local medical departments but the prison personnel is not specialised in specific issues like infectious diseases or drug addiction, and therefore they can help prisoners with general health problems. Prison medical personnel also do not have enough time to counsel every interested prisoner as long and as detailed level as the prisoners need and wish.

Challenges for Convictus
Today Convictus is on monopolistic position in Estonian prisons, but for better results there has to be constant development process inside the organisation and the improvement of offered services. The actuality of different issues changes in the course of time together with the development of the environment. Convictus encourages its employees to think creatively, to concentrate on the result, and to discover new possibilities for improvement of the organisation and services.
From the beginning of October 2007 the activity of Convictus has been financed by Ministry of Justice (support groups) and starting from March 2008 in addition by United Nations Office on Drugs and Crime (consultation service and peer-to-peer training). Since the work is project-based, Convictus has constantly to look for resources which enabled to continue its activity aimed at helping the weaker and vulnerable members of society.
latsin@hot.ee
Contact Phone: +37256506376

PE3.2/6
Increasing coverage of peer-driven interventions in Ukraine for IDUs: five site-visit assessments
Oleksandra Datsenko[1], Oksana Matiyash[2], Liudmyla Shulga[3], Pavlo Smyrnov[4], Robert Broadhead[5]
AIDS Alliance Ukraine Ukraine[1 2 3 4], University of Connecticut United States, United States[5]

BACKGROUND: Due to the success of “peer-driven intervention” PDI projects in rejuvenating 5 traditional harm reduction (HR) projects in 2006 in accessing and educating injection drug users (IDUs) who had never been HR clients, the AIDS Alliance-Ukraine, with *Global Fund* support, rolled out 17 PDIs in 2008 (see map insert), all designed to target women and IDUs < 25. The PDIs rely entirely on IDUs to educate their peers and recruit them for prevention services, for which the respondents earn nominal cash rewards. All recruits also serve as peer-educators and recruiters. In this way, the recruitment process expands exponentially.
METHODS: Four external observers visited 5 of the 17 PDIs in December, 2008 to evaluate their performance and consistency of program operations. We observed all program operations, staff-respondent interviews, and interviewed Health Educators (HEs) and respondents.
RESULTS: 1. PDIs can significantly rejuvenate HR-oriented projects much more than recovery-oriented projects. After several weeks of PDI operations, the one recovery-oriented project had recruited only 19 new IDUs; the 4 HR projects visited had recruited 79, 30, 159 and 84 new IDUs respectively. PDIs can help projects promoting HR with active drug users far better than projects promoting abstinence with drug users in recovery.
2. In a PDI, IDU-recruiters are rewarded for how well they educate their IDU-recruits in a body of prevention information, as measured by a knowledge test administered by HEs when the recruits arrive for services. The HEs must administer the knowledge test in a standardized manner, and be prepared to calm down recruiters when their recruits score poorly on the test, for the recruiters realize they will earn less money.
3. Two prevention topics that both the recruiters and recruits least understand but find most interesting are “cross-contamination” and “window period.” IDU-recruiters are enthused to educate their recruits why persons who are HIV+ should not become re-infected with HIV, and why

persons who test HIV negative may still be HIV infectious, and should behave as if they are HIV+.
4. In a PDI, recruiters are trained to educate their recruits in a body of prevention information, using 3 recruitment coupons with which they can earn rewards. Projects are reluctant to give recruiters more than 3 coupons for fear that some will monopolize the education and recruitment effort. Nevertheless, for recruiters who succeed in recruiting very high-risk IDUs, and educate them well, projects such give such recruiters more coupons and work with them closely as colleagues. (5) Respondents emphasized that the rewards are only one of many reasons they are enthusiastic about participating in the PDI. Respondents say their fear of HIV, their desire to know about to protect themselves, and their desire to help others, are all as just as important as the rewards.
CONCLUSIONS: Site-visits are valuable for ensuring that PDI operations are consistent and delivered with care HEs, and that the latter know that their work is taken seriously and highly appreciated. Additional key insights into state-of-art PDI services will be shared during the presentation.
broadhea@hotmail.com
Telephone: 1 860 778-6702

PE3.2/7
Food vs. Cash Rewards in Russia HIV Prevention for IDUs: Testing the Feasibility of a Food-Voucher Peer-Driven Intervention
Robert Broadhead[1], Valerij Volkanevsky[2], Tamara Rudanova[3], Anna Mamina[4], Casey Borch[5], Gordon Gauchat[6]
University of Connecticut United States[1 6], Yaroslavl HIV Prevention Center Russian Federation[2 3 4], University of Alabama United States, United States[5]

BACKGROUND: In Russia and elsewhere, many officials oppose offering IDUs cash rewards for working to prevent HIV. We examined the feasibility of substituting food for cash in rewarding IDUs by implementing a “voucher” peer-driven intervention (PDI) in Tutaev, Russia. We compared it to a cash-based PDI in nearby Bragino.

METHODS: The vouchers could be redeemed at a local grocery store (except for alcohol and tobacco). Their purchasing power was equal to the cash-rewards according to the following schedule:
Rewards to recruits:
100 rubles ($3.00) for undergoing a health/risk interview.
Rewards to IDU-recruiters:
30 rubles ($1.00) for each IDU-peer they recruited with a coupon (maximum of 3).
20 rubles ($0.65) for each recruit who gave the project contact information.
Up to 30 rubles ($1.00) for educating each recruit in the community in a body of prevention information.
A 20 ruble-bonus for each female-recruit.

RESULTS: In the comparison’s first 6 months, only 3 baseline respondents were recruited per week to the voucher-PDI compared to 2-3½ times that number to the cash-PDI. In the 7th month, we switched the vouchers to cash rewards identical to those in Bragino. The number of new respondents in Tutaev jumped immediately to 7-9 recruits/week, and then 25 recruits per week subsequently. Recruits explained they were highly anxious about redeeming the vouchers for fear of being identified in the store as IDU-clients of the PDI project.

CONCLUSION: The sharp recruitment increase after switching from vouchers to cash clearly documents the superiority of the latter for stimulating IDUs’ participation in HIV prevention. For the same cost, cash rewards are far more powerful than vouchers in stimulating IDUs’ participation. Because cash rewards both increase greatly IDUs’ participation in HIV prevention, and safe-guard their anonymity, they are also more ethically defensible than vouchers.
broadhea@hotmail.com
Telephone: 1 860 778-6702

PE3.2/8
A European methodological model of HIV prevention in men who have sex with men (MSM)
Nigel Sherriff[1], Tomas Hernandez[2]
University of Brighton United Kingdom[1], Dirección General de Atención Primaria, Spain [2]

This paper presents an ongoing longitudinal study (2007-2010) that aims to generate and validate an innovative and culturally adapted European model of good practice for HIV prevention in MSM for use across Europe, and in particular, 'gay tourist destinations'. Funded by the European Commission Public Health Programme, the Everywhere project aims to contribute to raising awareness within MSM of HIV prevention messages by joining forces with four different businesses sectors that are associated with gay tourism and entertainment in Europe.
A mixed methodological approach has been adopted to design and establish a collaborative European consortium between different organisations (including public administrations, academic organisations, NGOs, and the private sector) across eight countries in Europe. Research activities include scoping exercises in each country to establish a 'state of the art' knowledge base of European country risk profiles; the development of training workshops and manuals for social mediators specialising in HIV prevention, in-depth qualitative interviews with gay business leaders; the development of HIV prevention leaflets for businesses and MSM, and; the development of action protocols the adoption of which make it possible for businesses to be certified as being responsible venues in the prevention of HIV. This protocol is to be piloted for five months during which eligible businesses that adopt the HIV prevention protocols shall be certified as a ‘Socially Responsible Venue in HIV Prevention’ (SR-HIV seal). To this end, the seal or certificate may be displayed in public places (the venue itself, travel guides, the local press, the internet, etc.), ensuring the involvement of the business owners in HIV prevention and adding value to the business. This paper will present the overarching framework of the Everywhere project and offer some initial findings from the first phase of the study including results of the scoping exercises from across different European countries.
Preliminary findings suggest that the Everywhere Project is an important opportunity to evaluate and improve local HIV operational interventions in MSM, by utilising learning from across Europe to form common strategies and synergies.
nigel@sherriff.org.uk
Contact Phone: +44(0)1273644539
PE3.2/9
Africans in UK present late and are likely to be on ARVs soon after diagnosis

Gertrude Wafula
Black health agency United Kingdom

Background: The purpose of the study was to undertake an assessment of the treatment information and nutrition needs of people living with HIV in North of England attending support groups. The survey was done between February-June 2008. Three organizations took part in the survey; the Black Health Agency, George House trust and Leeds skyline. It was necessary to get baseline facts and identify gaps that needed intervention.
Methods: The questionnaires were self administered and everybody attending the services at the three organizations at drop in session. For those who preferred to answer them in privacy, prepaid envelops were provided. Information was collected from participants on two main areas, treatment and nutrition from 55 participants aged between 20-59 years. The data was analysed using SPSS statistical package. We compare differences between services users from African origin and white British and the heterosexual and homosexual groups. The results discussed are mainly on treatment information.
Results: About 82% of participants of African attending African specific support services were on treatment as compared to 64.7% from mainly white gay group. Over 75% of the diagnosis in the last 1-4 years was on treatment. The heterosexual were more to start treatment (80.6%) soon after diagnosis that the homosexuals (60.0%). Despite that majority of participants were on treatment, there was a knowledge gap on ARVs. A total of 37.2% participants could not name the medication they were on given that some had been on treatment for over 4 years. About 15% had misconception that ARVs can eradicate HIV at HIV and 9% did not know treatment guidelines for starting. However, those who were on ARVs over 10 years reported good health.
Conclusion: Late presentation is associated with early start to treatment among Africans. The emphasis on early testing is suggested to help improve health outcomes of African communities affected by HIV. More knowledge on ARVs is crucial for management and care of HIV related conditions. ARVs are effective with good adherence and support groups can offer support to enhance ARV adherence.

gertrude@blackhealthagency.org.uk
Telephone: 00447985597890

PE3.2/10
Knowledge of representatives of national minorities on questions HIV-infection/AIDS as a basic factor of forming of primary prophylaxis.

Valeriya Brych
Transcarpathian regional Ukraine

Taking into account the fact of development of epidemic HIV-infection/AIDS in concrete social space under act of factors of macrolevel (economic situation, level of social solidarity of society, culture, religion), socio-economic environment, biomedical factors, it follows to concentrate attention on different directions of prophylaxis of distribution of infection. Analysing prophylactic work on questions HIV-infection, becomes clear that the representatives of national minorities practically were not brought over to informative work on questions HIV-infection/AIDS.
Purpose: to analyse the level of knowledge of young people of national minorities on questions HIV-infection/AIDS and ways of receipt by them to information.
Materials and methods: Before research the representatives of student's young people of Romanian were attracted and Hungarian national minorities, 398 and 375 persons accordingly, by age 14-16. In research it was used sociological, statistical methods and method of approach of the systems and analysis. Research basis was interviewing (the anonymous is structured deep interview) by filling of research of the standardized questionnaire participants in the presence of interviewer.
Got results: at the analysis of answers of respondents there is relative homogeneity of opinions of representatives of both national minorities with the insignificant difference of answers of representatives of sex of women and masculine. Almost all consider that at a sexual contact it is possible to be infected the HIV. Only 10% Romanian and 13% the Hungarian young people name all basic biological liquids (blood, sperm, selection of muliebrias) in which a high concentration is HIV. Thus about 45 % the polled students are expressly specified only blood, as a basic potentially dangerous liquid. At questioning the large stake of questions was selected for determination of priority ways of receipt of information and language on which more easily them to perceive it. 90% respondentiv want to get more information about HIV-infection/AIDS only in language of national minority. 22% the polled Romanian young people and 32% Hungarian want to get the indicated information at school, 44% - from different sources (television, newspapers, booklets, from friends, from parents). Research participants wish to get information by Romanian and Hungarian television, newspapers, booklets. Large enough stake before in general did not get information about HIV-infection/AIDS
Conclusions: A situation requires development of effective model of primary prophylaxis HIV-infection/AIDS exactly among the representatives of national minorities taking into account their ethnic and national features. At a design it follows to use priority on the view of representatives of young people of national minority ways and methods of report of information. Taking into account, that research was conducted in educational establishments, the most polled knew Ukrainian except for Romanian, what is not observed, in obedience to literature, among the population of having a special purpose national minority of more senior age. This circumstance requires subsequent more detailed study of situation and including of the got results to development of model of primary prophylaxis HIV-infection/AIDS among the representatives of national minorities.

valeria_brych@ukr.net
Contact Phone: 80505133562

PE3.2/11
How do we know what works? Assessment survey on quality assurance in the frame of national HIV/AIDS prevention programmes

Tzvetina Arsova-Netzelmann[1], Elfriede Steffan[2], Helene Reemann[3]
SPI Research gGmbH Germany[1 2], BZgA Germany[3]

Background: (QA) in HIV prevention is no static concept but a process, taking place in a particular context. No internationally applicable definition exists, various approaches are in use. In assignment of the Federal Agency for Health Education in Germany (BZgA) and the World Health Organisation,Regional Office for Europe (WHO/EURO)a qualitative assessment survey was

conducted in 10 European countries (Bulgaria, Croatia, Estonia, Germany, Hungary, Netherlands, Poland, Romania, Sweden and Switzerland) in 2008. The survey aimed to compile experts' experience in national HIV prevention measures about the ways QA is being understood as a theoretical concept and practically transformed in tools for quality management and furthermore what the related obstacles for the prevention interventions are.
Methods: A three-step process combined desk review on international and national reports and programmes; expert's survey conducted with assessment questionnaire and structured telephone interviews. Three main research areas were focused: general structure and implementation of national HIV prevention programmes, concepts of QA and identification of current good practice examples in QA. 24 experts were addressed in 15 countries. 13 experts from 11 countries returned back the assessment e-mail questionnaire, 6 experts were interviewed, 11 good practice QA examples collected. As a result of the qualitative data evaluation 10 country reports were compiled, which were reviewed back by the country experts.
Results: In a descriptive manner the findings highlight both the available quality assurance approaches to HIV prevention and address the difficulties encountered at national level in a critical stance. The analysis outlined commonalities and dissimilarities between QA and monitoring and evaluation (M&E) measures in HIV prevention, the structural integration of QA in the national AIDS programmes, the respective budget allocated, the interleave of QA measure with epidemiological and psychosocial research. In concrete the delegation of power and responsibility for the planning and implementation of quality management and control in the national HIV prevention context was also put in the foreground:

· Distinctly marked QA concepts in AIDS prevention are applied in Bulgaria, Germany, Sweden, Switzerland;

· QA in frame of (or only as) monitoring and evaluation activities is implemented in Netherlands, Estonia, Poland, Bulgaria, Romania, Croatia;

· Differences exist among integrated evaluation in national prevention measures (Germany, Poland) and national strategies to evaluate regional measures (Sweden);

· Nationally implemented QA have widest spread, realised in centralised (Estonia) or decentralised (Bulgaria) manner;

· Bottom-up QA models are largely initiated by NGOs in community based (Germany) and national (Netherlands) interventions;

Conclusions: Improved link of the QA concepts with research and epidemiological data on HIV/STI (sexually transmitted infections)is needed, e.g. second generation surveillance, KAPB (Knowledge, Attitudes, Practices, Behaviour) studies. Regular reporting mechanisms seem appropriate for better interlocking of national and regional/ municipal levels of quality management. No quality assurance systems without civil society's participation are thinkable. The further exchange and networking in the European Region on the topic of QA implies the openness and the critical stance of all relevant stakeholders at the national and regional levels.
arsova-netzelmann@spi-research.de
Contact Phone: +49 30 252 16 19

PE3.2/12
Feasibility study for a European internet platform of good practice in HIV prevention and sexual health
Elfriede Steffan[1], Christiane Firnges[2], Ursula von Reuden[3]
SPI Forschung gGmbH Germany[1 2], Federal Centre for Health Education Germany[3]

Background. Survey in charge of the BZgA; commissioned by the EU. The Dublin declaration on Partnership to fight HIV/Aids in Europe and Central Asia highlighted the need to establish highest standards of prevention of HIV/Aids, to expand the use of evidence-based interventions and to reinforce the cooperation between countries in Europe. A European internet platform on HIV/STI prevention and sexual health promotion could serve to assess and transfer effective approaches and models of good practice and strengthen expert exchange between countries.
Method. - Research on internet platforms of HIV prevention and sexual health.
- Survey addressed at European experts of HIV/Aids prevention, sexual health, including an assessment to obtain the needs for evaluated materials and measures and for expert exchange. Ideas on the design of an internet platform concerning aims, functions and scope and the wish to contribute were explored, using a Delphi technique (2 cycles), based on an e-mail questionnaire method, sample size 1. cycle: 23 experts; 2. cycle: 20 experts.
Results. The outcome of the research indicated that the internet provides a large pool of information on approaches of HIV/Aids prevention and sexual health. However, platforms lack transparency, systematic categorisation and assessment of information.
The majority of experts states a need for evaluated materials and measures of HIV/STI prevention and sexual health and for expert exchange, though to varying extents. The Delphi survey measured the level of agreement on a number of aims and functions of the potential platform. Experts agreed on the comprehensive scope of HIV prevention and sexual health promotion, also taking into account that the scope is depending on the target group. Experts also agreed on a quality assurance function and ranked two specific models of quality assurance. The approach to set up levels of quality, avoiding the exclusion of materials and measures and including information about obstacles, in order to be able to learn from mistakes was slightly preferred.
Conclusion. The survey indicates, that there is a particular need for
- quality criteria in order to assess information available on the internet
- resources to implement quality assurance functions consistently
Not quantity of unstructured information, but the easy access to categorised and assessed information are of vital interest in the field of HIV/Aids prevention and sexual health promotion in Europe.
e.steffan@spi-research.de
Contact Phone: 49/30/2521619

PE3.2/12

HIV-related PMTCT in penitentiary system of Ukraine

Nataliya Nizova[1], Olexander Galinsky[2], Vyacheslav Kravchenko[3]

NGO "Health. Woman. Longtvity." Ukraine[1], Odessa State Penitentiary Department Ukraine[2 3]

Background: the growing HIV prevalence in Ukraine and involvement of women of reproductive age in it annually increase the number of HIV positive people in penitentiary institutions, including pregnant female inmates, who need interventions aimed at prevention of mother-to-child-transmission (PMTCT) of HIV. Purpose of the program: develop proposals to improve services for HIV positive pregnant women in jails to reduce the PMTCT risk.

Evaluation Methods: Participant observation and policy analysis were applied. The study was focused on the procedure and conditions of antenatal care, as well as psychological support, provided to HIV positive pregnant women in female correctional institution, and to children born to them and placed in a special children facility on the territory of that institution. Strengths and weaknesses of the organization of PMTCT were identified.

Results and Challenges: Within three years (2005-2007), 115 pregnant women have been under observation, including 15 HIV positive women, one of which was first diagnosed with HIV only in the penitentiary institution. All participants received adequate antenatal care in line with clinical protocols. The medicinal prevention of PMTCT was based on Zidovudine, which was given to 10 participants starting from 28 weeks of pregnancy, to 4 participants – from 32-34 weeks, and to one – only in labor. In all cases breast feeding was excluded. In the children facility of the institution, all children born to HIV positive mothers completed the preventive ARV course. All children have been proved HIV negative after 18 months.

However, PMTCT interventions in penitentiary institutions were challenged by: 1) poor comprehension of HIV, demonstrated by pregnant women, which complicated the development of adherence to preventive ART; 2) the necessity to involve local HIV/AIDS service providers, responsible for HIV control and ARV drugs supply; 3) no ARV drugs in penitentiary institutions and necessity to bring them from the local AIDS service; 4) no capacity to count CD4 and VL at the medical facility of the penitentiary institution; 5) insufficient psychological support and pre-test and post-test counselling, provided to pregnant women; 6) the necessity to transport women in labor under escort to maternity hospitals outside the penitentiary institution therefore questioning the possibility to do the planned cesarean section; 7) low motivation of penitentiary institution staff to create conditions for pregnant women to follow all PMTCT recommendations.

Conclusion: The identified problems helped issue an interdepartmental order, which optimized the performance in penitentiary institutions of Ukraine therefore critically reducing the PMTCT risk among pregnant female inmates.

natalya-nizova@rambler.ru

Contact Phone: +38 050 4953 453

PE3.2/14

Peer HIV/AIDS prevention education for Croatian secondary-school students

Vlasta Hirsl Hecej[1], Jasmina Dobravc Poljak[2], Nives Sikanic Dugic[3], Mislav Luka Domljan[4], Nives Pustisek[5]

Children Croatia[1 2 3 4 5]

Background: The Peer HIV/AIDS Prevention Education Program (MEMOAIDS-II) has been implemented in the Republic of Croatia in the period of 2004 – 2006, supported by Global Fund to fight AIDS, tuberculosis and malaria. The intervention was designed to improve the HIV/AIDS knowledge, expel the misconceptions, to change the attitudes towards sexual risk-taking, and to reduce sexual risk behaviors among adolescents.

Methods: The MEMOAIDS-II intervention is curriculum-based HIV/AIDS education program for students in secondary schools. The program is preventive intervention aimed to change risk sexual behaviors and based on social and psychological theories. The program includes: education of teachers, training of peer educators, and 1 adult-led, and 3 peer-led HIV/AIDS education sessions for students. A pre-test / post-test assessment design was used to evaluate the impact of the intervention.

Results: The program was offered to all 356 secondary schools in Croatia. Total of 104 secondary schools (30%) from all regions implemented the program, and 26.024 2nd grade students participated in HIV/AIDS prevention education. HIV/AIDS related knowledge, attitudes, beliefs, intentions, and sexual behaviors were assessed at baseline, and in the 3-month post-intervention period among randomly selected students (2.259 students pre-tested and 2.168 post-tested). Evaluation results indicate that the MEMOAIDS-II intervention has significant effects on targeted population. The intervention has been effective in increasing HIV/AIDS knowledge, altering attitudes, increasing intentions to use condoms, and increasing protective sexual behaviors (condom use) among sexually experienced students.

Conclusion: The MEMOAIDS-II intervention has significant impact on HIV/AIDS knowledge, attitudes, intentions and sexual behaviors of targeted population, secondary school students. The program is effective intervention, and should be implemented in secondary schools as regular HIV/AIDS prevention education.

pro.repro@kdb.hr

Contact Phone: +38514600250

PE3.2/15

Across the border and back? BORDERNETWork-further development of hands-on HIV/AIDS/STI prevention, diagnostic and treatment in Europe

Elfriede Steffan[1], Tzvetina Arsova-Netzelmann[2]

SPI Research gGmbH Germany[1 2]

Background: Understanding is growing vastly in Europe that effective HIV/STIs (sexually transmitted infections) prevention is not just a compilation of stand-alone interventions, but should be part of an integrated concept and pan-European concerted measures. In this regard the German Federal Government's strategy in response to HIV/AIDS greatly emphasizes the importance of cross-border cooperation with Central and Eastern Europe. BORDERNETwork's holistic and interdisciplinary approach is particularly committed to the realisation of this and thus furthers the fulfilment of the Dublin Action.

Expanding upon the former EU-project BORDERNET, BORDERNETWork develops sustainable cross-border public health policies based on needs assessment, practice-driven research and capacity building. 13 partners from 7 countries (Germany, Poland, Ukraine, Bulgaria, Romania, Moldova, and Estonia) take part.

Methods: The overarching goal is improvement of HIV/STI prevention, diagnostic, and treatment through net-working. A bundle of methods is simultaneously applied in order to

reach synergy effects in the concerned border regions: epidemiological (sentinel surveillance) and psychosocial research is linked to practice enhancing evidence based interventions, low-threshold STIs diagnostic and treatment are complemented by assessment surveys in counselling and quality standards in HIV VCT(voluntary counselling and testing), transfer of proven model prevention interventions. Interdisciplinarity is benchmark of the network, ranging from self-help groups within civil society to university clinics, public health offices, counselling services, private medical practices and NGO (non-governmental organisation) grass-root projects. Divided in 5 border regions all regional HIV/STI and public health policy stakeholders are involved. Further methods applied are capacity building, transfer of assessment procedures, continuous medical education, awareness raising and lobbying for human rights, particularly of PLHIV (people living with HIV), ethnic minorities, socially marginalized groups, and MSM (men who have sex with men).

Results:

- Politically undersigned cross-border health goals (Germany, Poland) ensure access to HIV VCT, adequate HIV/STIs prevention and sexual education, expert's continuous education and support to PLHIV;

- Functioning networks in transboundary areas of special importance considering HIV spread Europe-wide (Poland/Ukraine; Estonia/the Russian border, Moldova/the Region of Transnistria, Bulgaria/Romania);

- Extension of regional HIV/STI sentinel surveillance systems outlines epidemiological events and risk indicators, related to mobility, assessment on quality of counselling;

- KAPB (knowledge, attitudes, practices and behaviour) survey among youth confirms high level of knowledge of HIV/STIs but many uncertainties related to wide-spread myths of infection and protection in the new EC countries;

- Transfer of proven models for youth prevention - events, drama education, peer training, multipliers' further education ;

- Improved prevention, diagnostic and treatment for most-at-risk populations – sex workers, IDUs, Roma youth, HIV-positive adolescents, inmates;

Conclusions: Steps toward harmonisation of HIV/AIDS prevention/diagnostic and STIs offers were done. Various interfaces of the public health context remain unaddressed – linking HIV and drug help systems, access to HAART (highly active antiretroviral therapy) for IDUs, free STI diagnostic/treatment for uninsured persons. The identified narrow link between condom use and prevention of unwanted pregnancy confirms unambiguously the importance of integrative prevention approaches, embedding HIV/AIDS and STIs education into the wider frame of the sexual and reproductive health of young women and men.

spi@spi-research.de
Contact Phone: +49 30 252 16 19

PE3.2/16

The Role of the State Social Services for Family, Children, and Youth in HIV Prevention and Response in Ukraine

Natalya Lukyanova
The State Social Services for Family, Children, and Youth Ukraine

As of January 2009 there were registered 141,277 people living with HIV in Ukraine including 26,804 those contracting AIDS. To the experts' estimates, the real number of HIV-positive people succeeds 250,000-300,000 individuals that amounts to 1% of all adult population of the country. Among those infected young people in the age 15-24 years constitute 15% and those injecting drugs constitute more than 40%. Children born to HIV positive women have concluded 20% of all new cases over the last year. Growing number of HIV+ children causes growing number of so cold "families in crisis", abundant children and orphans in institutions that will require strengthening capacities on the national and local level for providing various social services, care and support for these groups. So the model of minimal package of standard services that the system of State Social Services for Family, Children and Youth (SSSFCY) is currently providing in Ukraine is of a great need for today and would be of a great demand over the forthcoming future.

The analysis of existing legislation and practices in conjunction, behavioral studies on the most at risk children, adolescents and youth, needs assessment of families in crisis and evaluation of national capacities have been undertaken.

The services providing for HIV+ children and youth have been standardized and the state institutions for HIV+ children, youth and their families to provide care and support have been established and operational. The package of minimal social services for young people injecting drugs adopted by the Ministry of Family, Youth and Sport Affairs of Ukraine. The network of state social services for young IDUs has been established and providing basic harm reduction services. Social services for women to secure prevention of vertical transmission and abandoning of children are available in the country. Some training programmes for social workers developed and adopted on the national level. As the age of the first sexual contacts of children and youth in Ukraine is being essentially reduced, the knowledge of teenagers on HIV transmission and on safe behaviour is much poorer than of those older 19. So called 'street children' are more vulnerable to HIV while practicing risk behaviour, among them 19% were identified as CSW, 12% as MSM, and 6% as IDUs. Young people injecting drugs and practicing unprotected sex constitute up to 35%.

The most at risk adolescents insufficiently covered by prevention programmes, thus, the appropriate services have to be further developed, standardized and available for them. National capacities in terms of specialists able to provide these services of sufficient quality are to be improved. National legislation and state support in adoption of HIV-positive children are insufficient and needs further development and improvement. Prevention of vertical transmission needs to be further implemented in the country. The role of the State Social Services for Family, Children and Youth is crucial in this and will grow in the future, so the capacity of SSSFCY needs to be further developed and improved.

nl2605@yahoo.com
Contact Phone: +380 67 402 5675

PE3.2/17

HIV prevention among TB patients by means of introduction of School of patients

Natalia Vezhnina[1], Linara Akhmedzyanova[2], Natalya Shumskaya[3]
AIDS Foundation East-West (AFEW) Kazakhstan[1 2] ,AIDS Foundation East-West (AFEW) Kyrgyzstan[3]

Background . In Central Asia Republics (CAR) spread of HIV is accelerating in conditions of TB epidemic and growth of multi-drug resistant TB (MDR TB). According to the data of the Republican AIDS Centre in Kazakhstan cumulative number of HIV cases increased from 5 657 in January 2006 to 11 869 cases in 2009. TB incidence is more than 140 per 100,000 population, and a level of MDR TB is 23-24%. A treatment course was incomplete among 40-60% of TB patients. Therefore, TB/HIV co-infection control is the most significant question. Moreover, according to the national TB data, more than 30% of TB patients practice risky behavior related to HIV. According to the AFEW research conducted in Kyrgyzstan, 16% of TB patients take injecting drugs. At the same time, TB institutes are not involved in HIV prevention programs. Low level of patients' self-descriptiveness on TB and HIV issues is expressed in a lack of adherence to treatment and consciousness of risky behavior. Nurses as instructors can play an important role in combating HIV, TB and TB/HIV. Besides, informational and educational work of nurses in CAR is often limited and not systemized.

Methods. Dutch humanitarian organization «AIDS Foundation East-West» (AFEW), in the frames of projects funded by the Dutch Government, conducted series of activities on education and provision of technical support in organization of standardized session for TB patients by the head medical nurses of TB settings in pilot regions of Kazakhstan and Kyrgyzstan. During 2 years 7 seminars for 140 nurses from civil and penal systems, TB and HIV spheres were conducted. Nurses were acquainted with methods and got skills on patients' education, developed Module and regulatory base, defined strategy and steps in creation of "School of patients". «School of patients» received support of authorities and is implemented on the national level in Kazakhstan and Kyrgyzstan. Module "Patients' education on TB and HIV issues" is published and introduced.

Results. Program includes 5 sessions, which are conducted by AFEW trained nurses. Patients' knowledge is evaluated and "School" is monitored.

«School of patients» increases level of knowledge and preventive skills related to HIV-infection, hepatitis, TB, strengthens adherence to treatment among patients to have HIV testing. Patients are informed on harm reduction issues and opportunities to access medical and social services though the Client Management programme. AFEW has promoted establishing needle-exchange points in TB hospitals, where patients could have sterile syringes, condoms, informational materials. Inmates participating in "School of patients" train other inmates as peer to peer.

Nurses who received AFEW training trained more than 400 TB patients. After these trainings patients demonstrated better treatment adherence increased interest to informational materials and applies to trust points and client management units have grown.

Conclusion. Patients' education is important part of preventive and treatment programs targeting co-infected patients. Creation of conditions for systematic training of patients, organization of "School of patients" requires salvation of the following issues: political willingness of TB and HIV authorities; development of harm reduction points in TB institutions; organization and training for nurses themselves; update of the Module and development of necessary informational materials; introduction of monitoring system.

linarahmed@mail.ru
Contact Phone: +7 727 234 17 29

PE3.2/18

Nursing teaching intervention on nurses knowledge of HIV, attitudes and willingness to care HIV positive people in Lithuania

Vida Mockiene[1], Tarja Suominen[2], Maritta V[3], Arturas Razbadauskas[4], Saulius Caplinskas[5],
University of Tampere/ Klaipeda Lithuania[1 2], University of Turku Finland[3], University of Klaipeda Lithuania[4], Lithuanian AIDS Centre,University of M. Romerio, Vilnius Lithuania, Lithuania[5]

Introduction. Education can increase knowledge and influence the general attitudes towards HIV positive people and those with AIDS. To achieve this, it is important to understand the views of health care professionals and their educational needs related to HIV and AIDS. Nurses are the largest healthcare workforce, and are involved in virtually all levels of health care and are becoming increasingly central points of contact for clinical care of people living with HIV and AIDS; they must first be ensured adequate preparatory education. Most of the studies reviewed indicated that interventions have quite a positive effect on nurses' knowledge, attitudes and willingness to take care of HIV positive patients or those with AIDS in different countries. So it is nevertheless important to document such changes to build future programmes on a sound education.

Purpose of this paper is to describe the effect of an intervention program on nurses' knowledge level of HIV/AIDS, attitudes and willingness to care for HIV positive people.

Research question is: What kind of effect does the intervention program have to nurses' knowledge, attitudes and willingness to take care of HIV positive or those with AIDS?

Methods. PHASE I. Description of the previous intervention studies which has been done for the basis of the intervention programme. MEDLINE, Pubmed, Science Direct, Cochrane Library, EbscoHost, ERIC databases were searched for relevant English-language citations between 1997 and 2007. Relevant articles were retrieved, reviewed and assessed. 16 articles were deemed appropriate and selected for content analysis.

PHASE II: Planning and implementation of a national educational intervention in Lithuania. The study utilized a randomized controlled trial design (RCTs) with two experimental groups (EG1=69, EG2=70) and one control group (CG=65) in three Lithuania hospitals (in one hospital with EG1 nurses, in other hospital with EG2 nurses and third hospital with CG nurses). The sample sizes were based on power analysis. Nurses working in surgical, medical and gynecological and nurses working in primary health care centers were invited to participate in the study. The education intervention programme consisted of two days workshop and written material (20 pages) for group EG1 and of written material for group EG2. Previous valid and reliable instruments were used. After 3 months of baseline the data collection is going to be repeated and the comparison between the 3 groups are going to be made.

Results. With this study we are able to evaluate the situation in nurses' knowledge, attitudes and willingness to

care HIV positive and those with AIDS in Lithuania. Additionally, we are going to present a realistic supplementary teaching program for nurses to be used in the Lithuanian context.

Conclusions.

The benefit of this study is to develop supplementary training for nurses and give instructions how to develop professional nursing education in Lithuania.

vida.mockiene@ku.lt
Contact Phone: +370 650 99363

PE3.2/19

Transnational Networking to Enlarge and Improve Prevention Activities among Injecting Drug Users (IDUs) and Bridging Population

Inga Upmace
Public Health Agency, AIDS and STI Prevention Centre Latvia

Background: During 2006-2009, 5 Europe Union countries (Latvia, Lithuania, Estonia, Finland and Bulgaria) worked on strengthening collaboration and sharing their best prevention work experience in the framework of EC project Nr.2005305 ,,Expanding Network for Coordinated and Comprehensive actions on HIV/AIDS Prevention among IDUs and Bridging Population".

Objective: To make prevention work more coordinated on local and transnational level and comprehensive in order to decriese HIV spread among IDU and bridging population.

Methods: Through Latvia Public Health Agency led, coordinated and managed the whole project, every project partner (Estonia (EE), Lithuania (LT), Latvia (LV) and Finland(FI)) have to take a responce on some of eight project working packages (WP). EE managed a research in three Baltic countries, LT led public relation strategy, LV – coordinated further developing of low threshold centres (LTC) and international networking, FI – dealed with experience on harm reduction, BG had a status of collaborated partner.

Results:

1. Transnational networking (WP4) – developed Network (28 participiants from 5 countries), agreed collaboration principles, developed online platform (website) for network use, organized 6 meetings in 4 countries (LV, EE, LT, BG), established a new collaboration within framework of UNODC project for the Baltic;
2. Research (WP5) – behavioural and sero-surveillance (HIV, hepatitis, syphilis and tuberculosis) study in 3 Baltic States among IDUs and bridging population, results were publicated;
3. Capacity building for LTC (WP6) - every Baltic State have had 12 local trainings for prevention workers (20 participiants from a country per training), 4 international experience exchange and trainings tours to Finland, Latvia, Estonia and Lithuania (till 20 participiants from a country to LV, EE and LT, and 6 per contry to FI), a few methodical materials were developed: common surveillance indicators, data software, technical guide for HIV prevention service providers, and the Manual for harm reduction service providers ,,Comprehensive Action on HIV/AIDS Prevention among IDU" in 5 languages (Latvian, Lithuanian, Estonian, Russsian and English) - on 165 pages, availlable also in electronical format; several booklets for LTC clients;
4. Public relation (WP8) – developed strategy and action plan for local stakeholders, produced 2 video films about harm reduction in LT, EE, LV and FI, project identication signs, project website, Baltic LTC map, organized project Final meeting.

Conclusion: Network strenghtened capacity of HIV prevention services, developed collaboration on local, intersectoral and transnational level, and gave several additional lasting values like Manual, common surveillance indicators, Guide for HIV service providers.

upmacis@apollo.lv
Contact Phone: +371 67081621

PE3.2/20

A new strategy to fight HIV/AIDS spreading among Young People (RAINBOW)

Carmine Falanga
ANLAIDS Sez. Lombarda Italy

RAINBOW project will be addressed to young people by the way they are at the centre of the global AIDS epidemic. Of the 1.7 billion young people worldwide, 5.4 million are estimated to be living with HIV (2007). About 40 per cent of new HIV infections are among young people. This age group also has the highest rates (over 500,000 infections daily) of sexually transmitted infections excluding HIV. Young people are particularly vulnerable to HIV infection for social, political, cultural, biological, and economic reasons. In order to protect themselves against HIV, young people need:

- Education.
- Skills.
- Youth-friendly health services.
- A safe and supportive environment.

Young people remain at the centre of the HIV/AIDS epidemic in terms of rates of infection, vulnerability, impact, and potential for change. They have grown up in a world changed by AIDS but many still lack comprehensive and correct knowledge about how to prevent HIV infection. This situation persists even though the world has agreed that young people have the human right to education, information and services that could protect them from harm. Young people are disproportionately affected in the HIV pandemic. They face the economic and social impact of HIV/AIDS on families, communities, and nations, and they must be at the centre of prevention actions. Where young people are well informed of HIV risks and prevention strategies, they are changing their behavior in ways that reduces their vulnerability. For example, in several countries, targeted education has led to delayed sexual debut and increased use of condoms resulting in a decrease in HIV prevalence in young people. Yet efforts to increase HIV knowledge among young people remain inadequate.

The main challenge is that young people are diverse. Interventions must be tailored to meet their individual characteristics and circumstances, such as age, sex, religion, socioeconomic status and domestic arrangements, among other factors. Interventions should specifically address the needs of vulnerable and high-risk groups of young people, including injecting drug users (IDUs) or sex-workers whose high-risk behavior has been identified as a driving force behind HIV transmission in Eastern Europe and Central Asia.

RAINBOW project will promote healthy adolescent development and provide them with age-appropriate knowledge and tools to make informed choices. RAINBOW will implement a tailored programme emphasize behavior change. Moreover, RAINBOW project will support the Youth-adult partnerships with a targeted programme

involving young people in HIV prevention efforts. It is based on the understanding that young people have a right to participate in programmes that affect them and on the experience that programmes are more sustainable and more effective when youth are treated as partners. Because youth are often less powerful, articulate and knowledgeable than their adult partners, youth-adult partnerships focus on technical assistance and training that empower young people to make their voices heard.
The specific objectives of the project are the following:
1. Identification of best practices (HIV training programmes and prevention campaigns) among countries partner of RAINBOW project in the fight against HIV/AIDS aiming to help PA, NGOs and all other actors working in the field of prevention and learning/training.
2. Transfer of the identified good practices in the participating countries.
3. Creation of a knowledge base (multilingual and multimodal) platform containing all the identified information about HIV training programmes and prevention campaigns among the participating countries.
4. Organisation of a prevention campaign in several meeting places (schools, discos, pubs, bars, sport centres etc.) attended by young people.
5. Promotion of Youth-adult partnerships and the participation of young people to the setting-up of tailored programme.
6. Development and validation of a new system called "Multyagency" able to provide targeted services addressing young people in different contexts.
Email:carmine.falanga@anlaidslombardia.it
Contact Phone: 0039-3391071524

PE3.2/21
Utilization of self-contained dry heat technology for on-site collection and processing of sharps waste to reduce HIV incidence
Mariel Selbovitz[1], David Miller[2], Jeannie Gibbs[3]
New York State AIDS Institute United States[1 2 3]
Background, The World Health Organization (WHO) has identified unsafe injection practices the "plague of many health systems"1. The intentional and unintentional reuse of contaminated sharps by injection drug users (IDUs) and health care practitioners and needle sticks to community members from improper management of sharps waste by health care facilities is causing millions of new HIV infections each year. Additionally, lack of the resources required by current methods for appropriate collection and management of sharps waste are a barrier to replacing sterilizable with single-use injection devices. Unsterilized used sharps are sold on the black market for reuse by health care facilities and IDUs.1
Methods . A single-use, one gallon container is placed in an air-tight stainless steel chamber, allowing for disposal of waste directly into the device. Once filled the container is closed and a button pressed to activate the treatment process. High velocity heated air approximately 171ºC is pumped into the chamber and directed to rotate the waste turbulently via toroidal mixing. Heat transfer takes place, melting plastic and metal and sterilizing. The cycle takes 150 minutes to complete and operates in three stages: warm-up, dry heat disinfection, and cool down. At end of cycle, the treated waste is compressed into a container and ejected.2, 3, 4
Results . The device collects and processes up to one gallon of sharps per cycle. Utilizing dry heat, collected infectious waste is rendered sterile and non-infectious after undergoing one processing cycle, able to be discarded safely with general waste. The volume of collected waste is reduced by approximately 75% less than that of the unprocessed waste that was collected. 2, 3, 4
Conclusions . The widespread implementation of self-contained non-incineration dry heat devices for the on-site collection and processing of biohazardous waste in health care facilities and by harm reduction programs for IDUs for the management of sharps waste at health care facilities and harm reduction programs for IDUs will predictably lead to the decrease of HIV and viral hepatitis infections from contact with and use of contaminated sharps. These devices minimize the handling of contaminated sharps and thus will predictably lower the incidence of needle sticks among service providers. The resulting decreased volume of contaminated sharps in circulation will predictably result in the reduction of needle stick injuries among residents and the reuse of syringes among medical providers and IDUs in communities where service providers use the device to process used sharps.

References
1 Unsafe injection practices- a plague of many health care systems. World Health Organization. 2009. Accessed from http://www.who.int/injection_safety/about/resources/BackInfoUnsafe/en/index.html on 4 February 2009.

2 Sterilization Efficacy of the Demolizer® II System for the on-site treatment of sharps and other regulated medical waste against S. aureus, E. coli, C. albicans, M. phlei, and B. subtilis spores. Kansas State University, July 2006.

3 Efficacy testing against B. subtilis, S. aureus, C. albicans, M. fortuitum, M. bovis, P. auruginosa, and Giardia. Leberco Testing, Inc., multiple studies, 1992-1994.

4 Efficacy of the Demolizer® system on Hepadna Virus (duck hepatitis B virus). Stanford University, November 1992.
mselbovitz@gmail.com
Contact Phone: +1 617 717 4589

PE3.2/22
Experience of conducting cohort study aimed at estimating the efficiency of preventive behavioral program for injective drug users in St. Petersburg.
Levchenko J., Skochilov R., Sokolov N., Krasnoselskikh T., Shaboltas A., Tobin K., Latkin C.,Kozlov A.
Biomedical Center (St.Petersburg, Russia)
John Hopkins University (Baltimor, USA)

The prevention of spread of HIV among injective drug users and also transmission of the infection to their sexual partners is, like it was earlier, one of the main directions for prevention of HIV epidemic at this moment.
The main aim of the project is an estimating of the efficiency of psycological-communicative training developed for preventing HIV, STD and other behavioral risks in a group of injective drug users who have a long experience of using drugs and their network members (near surroundings).
From December of 2004 till october of 2007 at the project were enrolled 677 people, retention of those participants was completed to November of 2008.
Participants were an active IDUs irrespective of an HIV status, and alsotheir secual parnets or partners with whom they used injective drugs. Assessed procedures which were carried out in the beginning of research, and then at 6

and 12 months, included an interview for an estimation of behavioural risks and identifying of a circle of sexual and injective partners, and they were tested on HIV, syphilis, genital herpes, and hepatites B and C.
If participants were divided on a random basis (random sampling) into experimental group, they participated at 8 profilactis trining sessions.
The subjects of sessions covered various questions, including an recognition of personal risks, development of safe behaviour skills, the effective communications with friends, including skills of distribution of preventive messages in the nearest surroundings. Participants who have got in control group, had 8 group meetings without a preventive orientation, but an information on HIV and STD were avaliable for them. Social network members did not participate in group sessions or meetings, and were invited only for assessedd procedures at 6 and 12 months. During the interview with network members were estimated an degree and quality, type of preventive information from indexes (main partisipants).
The level of an HIV contamination has made 38% at screening phase of 667 IDUs. From 667 person 434 persons went trough a procedure of randomization. 230 people were included in experimental group (113 main participants and 130 members of their social network), in control group were included 204 people (91 basic participant and 110 members of their networks). The retention rate of sample for 12 months has made 79%. For the following period has occured 40 seroconversions. The analysis of reserch results comes to an end soon.

PE3.2/23
Role of the non-governmental organisations in HIV/AIDS prevention
A.Griskevicius [1], V.Lipnickiene [1], R.Jarasuniene [1], S.Caplinskas [1 2]
Lietuvos AIDS centras[1], Mykolas Romeris University[2]

Background
Participation of the non-governmental organisations in HIV/AIDS prevention programmes is very important. Student scientific associations, especially those of medical students, could be one of examples as future doctors gain the skills of preventative actions. In 2008 two resident doctors, future dermatovenerologists, members of student scientific association, decided to test on HIV the men who have sex with men (MSM), who were visiting the night club, and applied to the Lithuanian AIDS Centre for methodical and technical help. The Lithuanian AIDS Centre suggested to perform the testing while using a dry blood drop, and took part in developing a questionnaire for people seeking a test.

Procedure and results.
During September-December 2008 the resident doctors have informed the visitors of the night club in Vilnius about a chance to get tested on HIV. All interested people were provided a pre-test counselling and filled in the questionnaire, a drop of blood used to be taken. Dry blood samples have been tested in the laboratory of the Lithuanian AIDS Centre – totally 45 samples. The test was positive in one case (2.2%). After post-test counselling, the person applied to the Lithuanian AIDS Centre for health examination and consultation.

Conclusions:
1. The students gained excellent skills in working with so-called risk contingents that could be used in their doctor's career.
2. Active work with target groups is cost-effective in screening for HIV infection.
3. Alternative blood samples in testing on HIV among people at risk are sufficiently effective.

Contact information: algirdas.griskevicius@aids.lt

PE3.2/24
Show business involvement into HIV/AIDS prevention
Saulius Caplinskas[1 2], Zigmantas Nagys[1], Gerardas Petrauskas [1]
Lietuvos AIDS centras[1], Mykolas Romeris University[2]

Objective. Involvement of the show business and of the well-known people into HIV/AIDS prevention stimulates an interest of Lithuanian population, especially of the young generation, on HIV/AIDS and related issues and on preventative events.

Methods and forms. Participation of the show business and famous people in HIV/AIDS preventative events, charity concerts, art exhibitions to commemorate the dates related to HIV/AIDS.

Description. The Lithuanian AIDS Centre seeks the global AIDS campaigns be introduced by popular in youth singers and groups, famous Lithuanian people.

In 1999 the „face of global AIDS campaign" was a singer Ceslovas Gabalis, in 2000-2001 - singer Povilas Meskela and basketball team "Zalgiris", in 2002-2003 - group „Biplan" and singer Tigra, in 2004 – singer Alanas Chosnau, in 2005 – singer duo Linas and Simona, in 2006 – singer Hoksila, in 2007 – show family Giedrius and Asta Masalskis, in 2008-2009 – singer Jurgis Didziulis. Many nationally popular singers have moderated and performed international events without any honoraria.

Famous people keen to publicize an AIDS problem were active in different fields. For example, the duo Linas and Simona toured with their concert around 70 secondary schools and gymnasiums of Lithuania, and created a song to commemorate AIDS victims. The duo has talked on AIDS and its consequences in their concerts.

The singer Hoksila, while carrying his duties of a face of AIDS campaign, created a documentary „Walk to Zion" to reveal attitudes towards AIDS, African policy, street children and poverty. Hoksila has visited majority of boarding schools, foster homes and secondary schools, facilitated discussions and performed.

Majority of the faces of AIDS campaign have recorded social marketing audio clips to broadcast.
The first concert to commemorate the World AIDS Day was organised in 1998. It was aired on LNK channel and moderated by maestro Vytautas Kernagis.

Since 1998 several charitable events were organised, and funds designated to prevention of AIDS and drug use. For example, in 1999 the concert to commemorate the AIDS victims was organised (songs of the Queen singer Freddy Mercury, who died of AIDS, were performed by popular singers and groups of Lithuania); in 2000 – the concert „Don't be fashionable, be alive", in 2003 – charitable concert „Klaipeda residents, let's protect the children from

drugs! ". In 2001 on the Candlelight Day performed Nojus and exAirija, and group „QUEST". Donations gathered in the charitable concerts have been designated to support AIDS projects in Lithuania.

Lithuanian theatres have also „paid tribute" to HIV/AIDS problem. On initiative of maestro Adolfas Vecerskis the charity and support fund „Angel of Hope" was established and has organised an action „Art and medicine against AIDS" in 1998, and "Theatres against AIDS" - in 2001.

The first picture exhibition to commemorate the World AIDS Day was arranged in 1996. The photo artist Edis Jurcys introduced his Picture exposition „Living with AIDS". In 2002 the photo artist Prips arranged his exhibition „Prips's day against AIDS" in the capital gallery.

In the fall 2004 the exhibition of photo installations „Doors?! "about the life of a girl with HIV arranged in the club-gallery „Intro" aroused high interest of youth. The hero of exhibition communicated with young people, visited some schools in the capital.

Conclusions. HIV/AIDS prevention is continuous process, constant work in different fields and by various means. It is a way to accumulate an affinity team that is not directly involved into HIV/AIDS prevention but concerned by HIV/AIDS situation in the country. Well-known people are a mighty tool to form the general opinion.

Show business helps the Lithuanian AIDS Centre to draw public attention. These are welcome and impressive examples of HIV/AIDS prevention.
Contact information: gerardas@aids.lt

PE3.2/25
Evaluation of the effectiveness of HIV prevention among IDU in Lithuanian cities
Loreta Stoniene [1], Romualdas Gurevicius [2], Saulius Čaplinskas [3]
UNODC Project Office for the Baltic [1], States Institute of Hygiene [2], Lietuvos AIDS centras / Mykolas Romeris University [3]

Objective. To evaluate and compare the HIV/AIDS prevention effectiveness between the three Lithuanian cities IDU's by using the UNGASS (United Nations General Assembly Special session on HIV/AIDS, 2001) core indicators.
Methods: Simple random sampling was done with 10 % standard error (95 % CI) according to drug addiction prevalence rate (National Centre of Mental health data, 2007) and 111 IDU's were interviewed in Vilnius, 56 in Alytus, 62 in Visaginas. 171 (72.5%) of them were men, 65 (27.5%) women. The youngest respondents were in Visaginas (x=27.47, SD=5.83), older in Vilnius (x=29.36, SD=6.53), and the oldest in Alytus (x=36.12, SD=7.38) (p<0.01). All respondents (100%) were injecting drugs during the last month.
Results: To assess the knowledge and misconceptions about HIV/AIDS, respondents were asked 5 questions. Study showed that the most knowledge about the HIV transmission ways (14 indicator) have Alytus (59.3%), slightly fewer respondents in Visaginas (39.4 %) and Vilnius (35.1%)(p<0.01). Majority of the respondents know, that a person can reduce the risk of getting HIV by using a condom every time during the sexual intercourse (92.4%), that a healthy-looking person can have HIV (90.7%) and that a person can't get HIV by sharing food with someone who is infected (80.1 %, p<0.01).
Safer injecting and sexual practices among IDU are essential. Injecting practice evaluation (21 indicator) showed, that more sterile injecting equipment, the last time they injected drugs, have use Alytus (91.5%) in compare with Vilnius (79.3 %) and Visaginas (59.1%) IDU's ($\chi 2=19.1$, df=2, p=0.000). It was found that younger than 23 years age (12.3 %) of respondents, compared with older than 37 years (25.0 %) last time they injected less used sterile injecting equipment. Condom use analysis (20 indicator) showed, that slightly more of Vilnius (38.53 %) IDU's who have sexual intercourse last month used condoms during last time they have sexual intercourse, in compared with Alytus (32.2%) and Visaginas (27.3 %) (p>0.05) respondents.
IDU are often difficult to reach with HIV prevention programmes. These activities were assessed under HIV testing and access to services. Research data showed that 88.14% of Alytus, 78.38 % of Vilnius and 59.09% of Visaginas IDU's have been tested for HIV last 12 month (UNGASS 8 indicator) and know their HIV status (p<0,01).
And finally, the analysis of how many IDU's are reached with HIV prevention programmes (UNGASS 9 indicator) showed, that most prevention programs reached the Alytus (50.85 %), on overage Vilnius (34.55%) and at less - the Visaginas (18.2%) IDU's ($\chi 2=13.1$, df=2, p=0.001).
Conclusions: Investigation confirmed that prevention programmes not sufficiently reaching Visaginas IDU's – only one fifth of them received sterile injecting equipment and condoms, only half of them know HIV status. Visaginas IDU's injecting and sexual practices are the most unsafe. Despite the fact that in Visaginas mobile services are provided once a week, compared with regular services in Vilnius (mobile and stationary) and Alytus (stationary), the respondents of Visaginas are more informed about HIV/AIDS.
Contacts:
loreta.stoniene@unodc.org

PE3.2/26
Potential Bridges of Heterosexual HIV transmission from Drug Users to the General Population in St.Petersburg, Russia.
O.V. Toussova [1], I. S. Shcherbakova [1], G.V. Volkova [2], L. Niccolai [3], R.Heimer [3], A.P.Kozlov [1]
[1]- The Biomedical Center, St. Petersburg, Russia
[2] – Municipal AIDS Center, St. Petersburg, Russia
[3] – Yale University, New Haven, USA

Background.
The epidemic of HIV in St. Petersburg, which is currently concentrated among injection drug users (IDU), may be penetrating into the general population. Non-IDUs who have IDU sex partners (SP) could be potential bridges in an expanding epidemic.
Methods.
To investigate potential bridges, we accrued a convenience sample of 288 non-IDUs whose HIV diagnosis was attributed to sexual transmission and we determined the proportion that had IDUs among their sex partners. Having IDU SP ever (lifetime) and IDU SP in the last year were the key variables for the analysis of potential bridges in this study.
Results.

The interaction of gender and age was found to be a significant predictor of having lifetime IDU sex partner ($p=0.006$, χ^2 test) and IDU sex partner in the last year ($p=0.05$, χ^2 test): females aged 26 and younger were more likely to have both lifetime IDU SP and IDU SP in the last year. Among the group of young females, 46% reported ever having an IDU SP. Out of young women reporting ever having and IDU SP, 85% also reported at least one lifetime non-IDU SP. Among the females aged 26 or younger, a lower level of education (OR 2.7, CI 1.1- 6.7), being born in St. Petersburg (OR 2.9, CI 1.2 - 7.2), and alcohol use in the last 30 days (OR 3.5, CI 1.3 – 9.6) were significant correlates for ever having had an IDU SP.
Conclusions.
Urgent efforts are necessary to expand HIV prevention to target the potential bridging population to prevent further transmission.

PE3.2/27
Prevention of mother-to-child transmission (MTCT) of HIV in Lithuania

Uždavinienė V.[1], Jarašūnienė R.[1], Čaplinskas S.[1,2]
[1] Lithuanian AIDs center
[2] Mykolas Romeris University

Background: From 1988 up to 1st January 2009 totally 217 female HIV cases were identified amounting for 15 % of all HIV cases. Vast majority of women living with HIV are at their reproductive age (90%), respectively, a risk of perinatal HIV transmission occurs. Prevention of mother-to-child transmission (MTCT) of HIV interventions may reduce the risk of HIV transmission up to 2%. The objective was to assess prevention of MTCT of HIV in Lithuania.
Methods: Retrospective analysis of national data on MTCT of HIV prophylaxis in Lithuania: antiretroviral therapy during the pregnancy, during labour and in the neonatal period, mode of delivery.

Results:
The first delivery of a HIV-infected woman was registered in 2002, consequently, in 2003 – 3 cases, in 2004 – 2, in 2005 - 11, in 2006 - 3, in 2007- 10, and in 2008 - 13 deliveries in women with HIV were observed, totally – 43 deliveries.
24 (55.8 %.) women have acquired the virus heterosexually, 19 (44.2 proc.) – via intravenous drug use. Average age of bearing women was 28 years.
Voluntary HIV counselling and testing is available and accessible to all pregnant women for free from 2007.
33 (76.7%) pregnant women with HIV have received antiretroviral treatment during pregnancy.
Intravenous ZDV during intrapartum period has been applied in 34 (79 %) of deliveries.
Elective Caesarean section was applied in 30 (69.8 %) of deliveries, vaginal delivery - in 13 cases. Median gestation age at delivery was 37 weeks.
Infant chemoprophylaxis with AZT was applied in 86 % of infants. Recommendation of refraining from breastfeeding is implemented universally (exception – one case).
MTCT prophylaxis was not universally applied due to late visit to health care institution and HIV diagnosis after delivery.
Conclusions: Mother to child transmission of HIV prophylaxis is widely accessible in Lithuania. Only one perinatal transmission case was registered in Lithuania. Education of the general public and pregnant women, as well as training of medical workers on HIV prophylaxis is indispensable to improve prevention of MTCT.
Contact information: vilma@aids.lt

PE3.2/28
Competition of mass media coverage on HIV/AIDS
Saulius Caplinskas[1], Gerardas Petrauskas[2]
Lithuanian AIDS Centre, Vilnius, Lithuania

Objective. To stimulate professionalism and interest of mass media on HIV/AIDS issues.

Methods and forms. Competition of mass media urges to take responsibility for coverage on HIV/AIDS and related issues. Annual awarding ceremony on the World AIDS Day is a good opportunity to thank those involved into public education and information, and to draw special attention to HIV/AIDS issues in Lithuania and the world.

Description. Since 1997 the Lithuanian AIDS Centre in collaboration with UNDP, Lithuanian Journalist Union, World Health Organisation has organised competition of mass media coverage on HIV/AIDS, sexually transmitted infections and drug use. Competition is usually announced in November and lasts up to the November next year, and the winners are awarded on the World AIDS Day, 1st December.

During 12 years of the competition practice journalists in Lithuania have been awarded almost 300 times. More than 40 of them were awarded two and more times.

Conditions of competition are published. Participants include journalists of Lithuanian dailies, local newspapers, specialised newspapers, journals, websites, radio, television, news agencies, freelance ones, producers of documentaries, various publicistic broad- and telecast, moderators, creative workers and groups. Students are also eligible to participate.

The most professional, momentous coverage including articles, tele- and broadcast are awarded the cash prizes, letters of thanks issued by UNDP, Ministry of Health, Lithuanian Journalist Union, Vilnius Municipality, Lithuanian AIDS Centre and other institutions, and receive sponsors' gifts.

Categories of awards are: press articles, cycle of pictures, broadcast, telecast, reportages, news coverage, documentaries, social marketing, etc.

Presented works are evaluated by relevance to society, educational impact, objectivity, correctness, etc.

Presented mass media works are evaluated by Commission including Ministry of Health, Lithuanian Journalist Union, UNDP, WHO, Lithuanian AIDS Centre and people living with HIV/AIDS.

In 1997 the Lithuanian AIDS Centre awarded 6 journalists, and in 2008 more than 40 journalists, mass media, news agencies received testimonials. The competition gains even higher interest of local mass media attracting even higher number of participants every year.

Conclusions. The Lithuanian AIDS Centre has comprehended from the first days of its operation the importance of mass media involvement into fighting HIV.

Mass media coverage on HIV/AIDS issues and proper reaction is helps the general population to better understand importance of epidemics and tackle it. Mass media provides an opportunity to inform on epidemiological situation in the country, HIV transmission ways and means of protection.

This competition is not a testing of the mass media knowledge but an attempt to understand each other, to stimulate and thank for good work.
Contact information: svietimas@aids.lt

PE3.2/29
One of the major educational creative projects for school students in Lithuania „We are against AIDS".
Saulius Caplinskas [1 2], Zigmas Nagys [1] ,Loreta Stoniene [1]
Lithuanian AIDS Centre [1], Mykolas Romeris University[2]

Objective. To assess the knowledge on HIV/AIDS of participants in the project "We against AIDS" by interactive two level competition on internet with main prize – trip to Milan (EU project Sunflower, www.sunflower-project.eu).

Methods: All Lithuanian school students had possibility to participate in the project through a teacher or public health care specialist, who has registered five participants per school on internet (www.aids.lt/konkursas) and got password. The competition participants (N=592, mean age 16.89 y., SD=0.88) from all Lithuanian districts were due to fill in a questionnaire: 1st level 20 questions (35 points), 2nd level - 15 q. (30 points) and a questionnaire with 4 q. on demographics.

Results: 404 (68.2 %) respondents gave correct answers to five questions related to the UNGASS 13th indicator (Young people. Knowledge about HIV prevention).
Best knowledge showed gymnasium (77.1 %) and secondary school students (65.7%), lower – basic (57.6%) and vocational school students – 56.8% ($\chi 2=15.97$, df=3, p=0.001). Knowledge of girls (71.0%) exceeded that of boys (61.2%) ($\chi 2=5.21$, df=1, p=0.022).
The youth was best informed about safer sex (98.9%), that healthy appearance did not guarantee HIV non-infection (98.3%), that one could not acquire the virus through food (96.3%). 75.3% of respondents did not trust in fidelity a partner, while boys were less confident as girls (69.1% and 77.8% respectively) ($\chi 2=4,80$, df=1, p=0.028). Girls were more sure that one could not acquire the virus through kissing (respectively 93.7% and 86.7%), ($\chi 2=7.70$, df=1, p=0.006).

Conclusions: more girls as boys got involved (72.1% and 27.9 % respectively), and knowledge of girls proved to be higher. Level of knowledge corresponded to the educational level. No differences by respondents' age were found.
Contact information: svietimas@aids.lt

PE3.2/30
Lithuanian AIDS Centre Harm reduction site in 2003-2008: quantitative indicators

V. Uždavinienė, A. Valatkevičienė, I. Čaplisnkienė
Lithuanian AIDS center

Objective. Over the last decade the majority of new HIV infection cases in Lithuania were related to injecting drug use. In 1998 the first Low Threshold Site for IDUs was established in Lithuanian AIDS Centre in Vilnius. The aim of the study - to conduct a retrospective assessment of some quantitative results of the activities of Lithuanian AIDS Centre Low Threshold services (Harm reduction site- HRS).
Methods: Descriptive analysis of activities of HRS in 2003-2008 was carried out: the number of clients, demographic characteristics, the number of distributed and collected needles and syringes, the number of distributed condoms, spirit napkins. Health education, motivational training to reduce HIV-related risk behaviour, HIV counselling and testing, consultations of social workers, referrals to psychologists' consultations and treatment of STI/HIV were evaluated.
Results: In 1998-2008 a total of 3282 IDUs were registered in HRS, 4,1 % of whom were HIV positive. In 2003-2008 period an average of 7,1 thousand IDUs visits was registered every year (totally 42948 visits). Each year, an average of 210 new IDUs had visited the HRS. Average duration of drug use was 7 years. Mean age of the clients was 30 years.
Over the six year totally 152 thousand used syringes and 162 thousand used needles were collected, 123 thousand syringes and 129 thousand needles were distributed; 12 thousand condoms and 78 thousand spirit napkins were distributed.
Every year an average of 245 consultations were provided to solve social problems, 1386 - health education and trainings to reduce risky behaviour, an average 61 clients were referred to health care specialist (doctor gynaecologists, gastroenterologists, dermatologist consultation).
Conclusions: The proportion of collected needles and syringes was higher than of those distributed. The availability and accessibility to Low Threshold services contributed towards the stabilization of HIV spread in the Vilnius city.
Contact information: irma@aids.lt

3.3 Care and Support

PE3.3/1
Palliative Care for HIV Positive IDUs in One of the Largest Areas in Russia
Grigory Moshkovich[1], Elena Vvedenskaya[2], Oxana Shilova[3], Irina Voronina[4], Ludmila Varlova[5], Larisa Bykova[6]
Regional Centre for AIDS Control, Russian Federation [1 2 3 4 5 6]

HIV/AIDS epidemic in Russia is one of the most rapidly developing. Marginalized IDUs community so far beard an increased burden with regard to limited access to comprehensive, quality care addressing this wider range of needs and end-of-life care. They are likely to experience several levels of stigmatization and discrimination. They are often unable or unwilling to access HIV/AIDS treatments or general medical care.
Setting
By the end of November 2008, the registered number of people living with HIV/AIDS in the Nizhny Novgorod area has reached 6,226. HIV infection was attributed to injection drug use in 73.5%. Since 2006 the number of patients with advanced HIV disease and the dying has been growing rapidly. A continuum of care needs to be established for HIV positive IDUs.
Project
A regional HIV/AIDS palliative care project started in Nizhny Novgorod in 2005 with support of the Global Fund.

A multidisciplinary team was set up to provide palliative care for patients with advanced HIV disease (70% IDUs) in an outpatient and a day-care clinics of the regional AIDS Center, in a hospice ward, in a hospice unit of a city tuberculosis hospital, and in the community.
Outcomes
Over 160 IDUs with advanced HIV disease have received holistic palliative care since the project started – HAART, medical treatment, specialist psychological counseling, psychosocial, spiritual, legal and financial support. Special assistance was provided to their families in bereavement. A multidisciplinary model, which incorporates HIV, tuberculosis and end-of-life care expertise, is a replicable example of comprehensive palliative/hospice care delivery for IDUs living with HIV/AIDS.
Conclusion
Due to this programme the stigma of both HIV and IDU has been reduced. Palliative care programme and its philosophy meets the complex needs of IDUs living with HIV/AIDS and their partners and can serve as an example of holistic approach to care for this group of population.
shov1976@rambler.ru / Telephone: +7 831 4361846

PE3.3/2
Barriers to Access and Adherence to Antiretroviral Therapy Among Youth- A qualitative study from a Ugandan truck stop
Simone Carter[1], Dr. Patricia Spittal[2], Dr. Dennis Willms[3], Barnabas Magambo[4], Dr. Nelson Sewankambo[5]
University of British Columbia Canada[1 2], McMaster University Canada[3], Makerere University Uganda[4], Kenneth Mugabo Uganda Martyr's University Uganda[5]
Background: Since 2004, free antiretroviral therapy has been available for people living with HIV/AIDS in Uganda. However little research has investigated barriers faced by those attempting to both access and adhere to such programs. This study qualitatively explored HIV related vulnerabilities among young people living with HIV in this truck-stop setting.

Methods: Over 8 months, 40 in depth interviews(20 male, 20 female) with HIV positive young people ages 15-30, as well as 2 focus groups (1 community counselors, 1 physicians) were held. Calendars were used for self-reported adherence. Key themes were identified, coded and analyzed by the Ugandan-Canadian team.

Results: None of the participants reported 100 percent adherence. While the availability of treatment provides an incentive for young people, especially women, to live long enough to see their children grow, food insecurities create considerable challenges to adherence, resulting in less than 75 percent adherence among most participants. Those participants (N=10 female and 10 male) not accessing treatment were unable to do so as a result of living in town, which has removed traditional access to family land; as the cost of rent is too high for many, the reliance on living with their employers or a partner results in a power-struggle, barring their access to treatment.

Conclusions: In order for young people to overcome food, housing and job security barriers, possible community farming projects for this vulnerable group should be considered. Such programs creating self-sufficiency for the young women unable to access because of the partner dependence are also suggested.
simonecarter@hotmail.com
Telephone: 1-778-891-0242

PE3.3/3
Empowerment of PLHIV community in Serbia through establishment of PLHIV Network
Miljana Grbic[1], Melita Vujnovic[2], Rade Grbic[3], Dejan Tomasevic[4], Larisa Vujnovic[5], Milos Stojanovic[6]
UNAIDS Serbia[1 6], WHO Serbia[2], Medical Faculty, Pristina Serbia[3], PLHIV Network, Q-Club Serbia[4], Pharmaceutical Faculty, belgrade Serbia, Serbia[5]

The key elements that have been shown to be important in an effective involvement of PLHIV in the national response to HIV/AIDS: establishment of a core body to gather HIV positive individuals and organizations established and governed by HIV positive people, capacity building of HIV positive people to understand and claim their rights.
The initial idea came from a few NGO, established by HIV positive persons in Serbia. The aim was to acquaint PLHIV with their rights, possibilities to improve access to services, treatment, and to create a self-supportive environment. The Network gathered all PLHIV Organizations from Serbia, around the core aim to jointly improve the lives of people infected/affected with HIV. UN Theme Group on HIV/AIDS in Serbia has recognized the importance of empowering and unification of PLHIV, and supported their efforts to create a network, to carry out activities and to become self-sustainable. At this point in time there are seven associations of PLHIV established and managed by PLHIV which are members of the Network. All associations signed a memorandum of understanding in 2007, which specifies obligations and duties of members and defines the decision-making process and goals of the Network.

PLHIV Network has become a channel of communication between PLHIV associations in Serbia, strengthened capacities of the existing ones and unified the voice of PLHIV in the process of designing and implementing activities for improving the position and life of PLHIV. They are an important source of information for stakeholders on how various activities targeted at PLHIV are perceived and how they affect them. Different stakeholders have recognized the Network as a credible partner in the National HIV response; the Network successfully applied for grants for implementation of the GFATM project for HIV in Serbia. Representatives of the Network are credible and active members of the national Country coordination Mechanism for GFATM projects of the Republic AIDS Controle Committee. The Network matured and speaks with one voice during HIV-AIDS knowledge raising campaigns. The Pharmaceutical industry also started discussions with the Network regarding availability and composition of ARV treatment and other medication needed.

Further strengthening of the network by involving PLHIV friends and families in the day to day functioning of the Network, with the aim to reach more HIV positive persons, to ensure the Network's sustainability.
mvu@who.org.yu / Contact Phone: +381641448868
PE3.3/4
Ten HIV infected youngsters (15 -21 years old) experience and feelings about living with HIV in Sweden.
Lise-Lott Rydstr[1], Tingberg[2], Helena Reiman[3]
Karolinska Universitetssjukhuset. Astrid Lindgrens Barnsjukhus Sweden[1 2 3]

Background: Sweden there is about 130 children in the age of 0 – 18 years old, known as HIV-positive. Since 1999

(Naver 2004) there are no child born to a known HIV inflected woman, that have taken part in the screening program that have become infected. Nevertheless the number of HIV infected youngsters is rising. People with HIV and their families have reported numerous mental and physical effects from stigma, inclouding fear, isolation, anxaety, depression, and poor psychological function. There primary forms of stigma that have been identified are: the fear of being discriminated against, enacted stigma, structural discrimination from institutions such as health care and cortesy stigma (Bogart 2007). Conflicts with parents, disaffection with school, difficulties balancing the need of medicines with demands of adolecent life, and when to share their dignosis with friends (especially if they are in an intimate relationship), concerns about appearance are being commonly reported from younger adolescents interviewed. Older adolescent pay more attention to planning for a future and report dilemmas about relationships. (National Service Framwork 2004)
Purpose: Explore HIV-infected younge people (15 -21 years old) experience of living with HIV in Sweden. Method: The study has a qualitative approach and 10 interviews was accomplished five girls and 5 boys home all hade been treated at one of the big hospitals in Stockholm fore most of their childhood.
There are very few studies about quality of life carried out on this group of young people in Sweden. Howe the disease and the stigma of the disease influence their life. A study has been carried out in purpose to give young people a possibility to tell about how their life as a child living with HIV in Sweden has been. The analysis appears 5 areas that seem to have an impact on the interviewed young people's perception of quality of life. These areas are **stigma/secret** about that choose to exclude themselves from society or to make young people in a more alienation. **Loss** about death, loss of a healthy life, choice and opportunities to travel all over the world. **Knowledge/ Control** of one's own illness, knowledge of school and community and among health professionals and the reputation spread. Key parameters for this are as young ethnic origin, religion, self-knowledge, knowledge development. **Care** how young people experienced the care and treatment during upbringing. **The future**, thoughts that young people have about the future.

The investigation made it plain that caregivers and young people often have a different view of living with HIV and where the big issues whit living as HIV positive are.
Email:lise-lott.rydstrom@karolinska.se
Te: +46736209744

PE3.3/5
Changes in Quality of Life and Course of HIV-Infection after 10 Month of Intensive Training for a Marathon Race
Michael Rausch[1], Hillenbrand Heribert[2], Ralph Petry[3], Bettina K[4], Carolin Hapke[5]
Private Practice, Fuggerstr., Berlin Germany[1], Private Practice, Gubenerstr., Berlin Germany[2], Abbott GmbH & Co. KG Germany[3 4 5]

Background. We investigated the effects of a ten-month lasting marathon training on the course of infection and the Quality of Life in HIV patients (pts) receiving antiretroviral therapy.
Methods: 19 HIV positive pts without any or with little experience in marathon running prepared for the Berlin Marathon 2008 under medical supervision und with the support of athlete coaches. CD4 counts, viral load (VL) and body mass index (BMI) were evaluated at baseline and shortly before the event. In addition, several criteria of QoL (lack of energy, depression, sleep-onset insomnia and physical appearance) were recorded by using patient questionnaires.
Results: Data on the course of infection and QoL before and after training were available from 10 pts receiving antiretroviral therapy (8 male, median age 45 years). While 8 pts showed an increase in their CD4 count (range 30 to 209 cells/µL), there was a small decrease in 2 pts (-7 and -10 cells/µl). Overall, this resulted in a statistically significant average increase in CD4 count of 95 cells/µL ($p=0.0051$). VL remained constant in 5 pts and decreased in 4 pts (range 39 to 1633 RNA copies/mL). One pt had a slight increase in VL of 39 copies. With 79 RNA copies/mL he was the only participant who showed a VL above the detection limit after training. While 5 pts lost between 2 and 10 kg of weight, the other 5 gained weight in a range between 2 and 12 kg. The average BMI decreased slightly from 24.2 to 24.0.
An improvement in the QoL criteria tiredness/lack of energy, abjection/depression and sleep-onset insomnia was reported by 2 of the 10 pts in each case. 5 pts rated the change in their physical appearance as positive, one as negative. Almost all pts reported an increase in vitality, greater physical ability and a higher self-esteem. All 10 participants finished the marathon run.
Conclusions: HIV-positive pts receiving antiretroviral therapy are able to master the training for a marathon when medical and athletic support is available. Even pts with an already relatively good immune response showed a further increase in CD4 count, while VL remained under the detection limit in almost all cases. In addition, pts reported improvements in QoL, predominantly concerning physical ability and self-esteem. Further studies are required to investigate the effects of endurance training on immunologic and virologic response and on QoL.
Contact Phone: 0049 6122 58 2434

PE3.3/6
The Impact of Continuous Professional Development for Adherence Counselors of patient
Anton La Grange
Foundation for Professional Development South Africa

Background: While there is no precise qualification for excellence in adherence counseling, it is accepted that a good counselor is an individual who is possessed of a wide range of skills and updated knowledge. FPD acknowledges the fact that: staying abreast with new developments in guidelines, protocol, skills and knowledge in adherence for ART is critical to the success or failure in the management of individuals on ART; good adherence counseling is largely acquired with experience over time. The greater the number of clients counseled, the greater the skills of the counselor; Counseling skills also encompass a wide range of cultural nuances, gender issues, educational levels and age ranges.
Methods: In resource scarce environments, counselors cannot be taken from their working environment for constant training and continuous professional development. FPD, through an alumni network, manage to deliver monthly updates on specific topics to all alumni counselors. Included as part of these topics are new guidelines and protocols relating to quality assurance measurements and SOP at their facilities. Monthly updates in the form of self-study are digitally disseminated and include assessment

questionnaires which need to be completed every month. This assessment is based on knowledge and skills attained and require a 70% pass rate.
Results: In order to measure the transfer of knowledge and skills learned into the working environment, client satisfaction surveys should be conducted at all facilities. Part of the monthly CPD interventions should include the results of these surveys that should be given to the counselors as an additional tool to improve their performance. Through this countinuous development of counsellors, they managed to increase the number of patients with 80-90% adherence by 52%.
Conclusion: Through this intervention counselors manage to deliver a better quality service as evaluated by their clients and subsequently increase the adherence rates of their clients.
antonlagrange@gmail.com
Contact Phone: +27 844424442

PE3.3/7

Psychometric properties of Russian version of WHOQOL-HIV instrument

Kristi Ruutel[1], Helle-Mai Loit[2], Anneli Uuskula[3]
National Institute for Health Development Estonia[1] [2], University of Tartu Estonia[3]

Background. Quality of life (QoL) assessment can be used to answer questions in clinical care and health policy and it has become an important clinical outcome. The WHO has developed an instrument to assess subjective QoL in HIV infection WHOQOL-HIV. Hereby we report the results of a assessment of the feasibility, reliability and validity of the WHOQOL-HIV instrument for Russian speaking patients.
Methods. The Russian WHOQOL-HIV instrument was administered to a convenient sample of Russian-speaking HIV-positive persons attending the three largest infectious diseases out-patient departments in Estonia. Medical data (i.e. disease status) was abstracted from clinical records. The WHOQOL-HIV contains 29 facets, each with four items, which are subsumed in six domains: physical, psychological, level of independence, social, environmental and spiritual. There is also one general facet score that measures overall QoL and general health. Items are rated on a 5-point Likert interval scale. The WHOQOL-HIV instrument was translated into Russian, following the guidelines of WHO. In the second phase two focus group discussions were conducted involving ten HIV-positive persons to ensure the comprehensibility of the instrument.
Response rate, percentage of missing responses, percentage of subjects scoring the topmost and the bottommost scores, Cronbach alpha, Pearson coefficient and one way ANOVA were applied to assess, respectively, feasibility, ability to distinguish between groups, internal consistency, and convergent validity.
Results. The sample:
A total of 383 Russian speaking people completed the questionnaire. The mean age of the participants was 25.7 years (SD 6.8 years). Close to half of the participants (47.9%, n=183) were women.
Feasibility:
Study participation rate was 87%. Proportion of participants who had to be excluded from the analysis because of at least one missing response in a facet ranged between 1.3–4.7% (the highest in the facets concerning “concerns about the future“ and „energy&fatigue“).
Validity:
Floor effect ranged between 0.0–8.8% (the highest for facets “dependence on medication or treatments“ and „financial resources“) and ceiling effect between 0.0–15.7% (the highest for facets “dependence on medication or treatments“ and „death&dying“). Cronbach alpha ranged between 0.88–0.93 for the six domains and was above 0.70 in 24 of the 29 facets and the overall QoL score. It ranged between 0.48 and 0.64 in the remaining 5 facets. Each domain was significantly related with overall QoL (0.48–0.82, $p<0.0001$). Moreover, each domain was significantly related with other (0.45–0.89, $p<0.0001$). Interitem correlations within domains were satisfactory (higher than 0.20) in four domains out of six (lower than 0.20 in Environment and Spirituality). Interitem correlations within domains were satisfactory in 24 of the 29 facets and the overall QoL score. Lower interitem correlations as well as lower Cronbach alphas were observed in the facets “concerning personal relationships“, “social support”, “physical safety and security“, „recreation“ and „physical environment“. Finally, mean scores in QoL domains and facets were in the expected direction (worse in symptomatic persons and AIDS patients versus asymptomatic patients).
Conclusions. The Russian version of WHOQOL-HIV is a valid and reliable instrument to assess subjective QoL in PLWH.
kristi.ryytel@mail.ee
Contact Phone: +3756593980

PE3.3/8

Delivering multidisciplinary services at the Romanian HIV Centre of Excellence

SCHWEITZER ANA-MARIA[1], MIHALE STEFANIA[2], KLINE MARK W.[3], CALLES NANCY R.[4], RUGINA SORIN[5], JEFF RICHARDSON[6]
BAYLOR BLACK SEA FOUNDATION BIPAI ROMANIA Romania[1] [2], BAYLOR INTERNATIONAL PEDIATRIC AIDS INITIATIVE BIPAI United States[3] [4], INFECTIOUS DISEASES HOSPITAL CONSTANTA Romania, Romania[5] , USA, ABBOT FUND[6]

Issues: The establishment of the Romanian Centre of Excellence (COE) in 2007 provided an opportunity to develop and deliver upon standards multidisciplinary medical and psychosocial services for all children, adolescents and adults in Constanta County- Romania; the concept of the COE is the public private partnership, which is offering sustainability and community linkages.
Description: BIPAI IS one of the largest providers worldwide of comprehensive care and treatment for HIV-infected children and families. Established in 1996, BIPAI has built and operates Children’s Clinical Centers of Excellence (COE) in Botswana, Lesotho, Swaziland, Malawi and Uganda in sub-Saharan Africa, as well as in Romania. In 2007 the mortality rates of less than 1% per year recorded at the centre in Romania, due to delivery of multidisciplinary services qualified the centre as a centre of excellence. The centre is a partnership between Infectious Diseases Hospital in Constanta, BIPAI, Texas Children’s Hospital and Baylor College of Medicine Houston, as well as Abbot Fund, USA.
The initial complex model of care proposed by BIPAI is now extended to all HIV infected patients in Constanta region, regardless of age. The services that the centre provides are: HIV care, opportunistic infections, psychosocial services at the centre and through home visits, TB management, Obs/Gyn services, PMTCT, and dental services .
Results: as the end of 2008, about 840 patients were registered at the centre, with 777 on ARV; around 463 unduplicated patients received various types of psychosocial support; couple counselling, especially for

serodiscordant couples and PMTCT are becoming increasingly important. The centre has expanded its services in the community, by offering rapid VCT. During 2008 more than 4000 persons accessed these services and 23 cases were reactive.
Lessons learnt: services need to be able to offer cotinuity of care, regardless of age and to respond to changing needs in accordance with life tasks at different life stages. Partnerships are key for success and sustainability. Motivating a team comprising individuals from different organizations is best achieved by mutual adoption of agreed upon and to some extent stretch goals and objectives. The idea of aiming for excellence was inspiring.
Next steps: the centre operations will be supported by an electonic medical record system and by scaling up strategic partnerships
OFFICE@BAYLOR-ROMANIA.RO

Contact Phone: +40241691730

PE3.3/9

Access to ART Treatment: Implications for Adherence, Quality of Life, and Prevention

Linda Frank[1], Anupama Lochab[2], Korman David[3], Folby John[4], Yasmin Dada[5]
University of Pittsburgh, Graduate School of Public Health United States[1], University of Pittsburgh, Graduate School of Public Health India[2], University of Pittsburgh, Graduate School of Public & International Affairs United States[3], Consultant United States[4], consultant South Africa, South Africa[5]

Backgound: Access to ART has been shown to reduce mortality and morbidity of HIV. This study was aimed as ascertaining the impact of the AIDS Drug Assistance program funded by the US Department of Health and Human Services for a cohort of persons with HIV in Pennsylvania
Methods: A 103 item survey was mailed to the list of ADAP recipients. The survey was completed on paper of via internet. Data was entered into a database for analysis
Results: The 1,103 respondents were 78% male, 44% minority, 70% with income less than <$20,000,74% with HIV but no AIDS diagnosis. They reported that 80% had ease in access to treating clinicians, 87% had a CD4 and viral load testing in past 4 months, 71% had CD4 count >200, 59% had undetectable VL, 93% reported a positive relationship with their clinician. In addition 77% reported adherence to ART.
Conclusions: ADAP recipients have consistent access to treating clinicians and support services, high quality medical care, improved health status, reduced hospital admissions, and emergency room visits. Findings suggested that clinicians need to provide more risk reduction information to patients. This has implications for improved training of HIV clinicians on prevention assessment, intervention, and messaging.
lindarosefranchella@gmail.com
Contact Phone: +1 412-624-9118

PE3.3/10

Nurses' willingness to take care of PLHIV – current state in Finland, Estonia and Lithuania

Maritta Valimaki[1], Tarja Suominen[2]
University of Turku, Deparment of Nursing Science Finland[1], University of Tampere, Department of Nursing Science France[2]

Background: PLHIV poses a wide range of anxiety and ethical issues in nursing care. Nurses' perceptions of their role and ethical responsibilities may vary in different countries. However, nurses must provide treatment regardless of any personal objections
Methods: The purpose of this study was to describe and compare nurses' willingness to take care for PLHIV and factors associated with it. An international cross-sectional survey was conducted for nurses working in the units of medical, surgical and women's diseases in Finland (N = 427), Estonia (N = 21) and Lithuania (N = 185).
The following research questions were addressed: 1) Are there any differences between the three countries in nurses' willingness to care for PLHIV; 2) Which personal-level factors are associated with nurses' willingness to care for PLHIV in the three countries under investigation? A modified version of a scale developed by Duppert et al. (1994) was applied to measure willingness to care for PLHIV. The data analysis was carried out with SPSS for Windows (11.5). The response rate was 78 % (n = 314) in Finland, 50 % (n = 119) in Estonia and 86 % (n = 160) in Lithuania.
Results: In general, nurses in all three countries were willing to care for PLHIV (1.31 – 1.45). The most willing were the nurses in Lithuania (Mean 1.31, Sd 0.90, Md 1.31), and the least willing were the nurses in Estonia (Mean 1.63, Sd 0.69, Md 1.42), while nurses in Finland were somewhere between these two countries (1.45, Sd 0.64, Md 1.15).
In Finland, those who in generally were willing to care for PLHIV were also willing to perform nursing activities for the fictional patient compared to those who were in generally not willing to take care of the patient (Mean 1.32, Sd 0.50 vs. Mean 1.95, Sd 0.90).
In Estonia, two statistically significant differences between the subgroups were found. First, males were more willing than females to care for PLHIV (Mean 1,34, Sd 0.41 vs. (Mean 1.77, Sd 0.73, p = 0.002). In addition, younger the nurse was the more willing she or he was to perform nursing activities for PLHIV(r = -0.23, p = 0.017).
In Lithuania, those who have a friend or family member with HIV/AIDS were more willing to care for PLHIV. The findings of this study showed a general willingness of nurses to provide care for PLHIV. However, nurses' general willingness varied both between and within countries and has also related to specific nursing interventions. Factors associated with nurses' willingness varied inside specific countries as well.
Conclusion: The results underline the importance of providing a standardized education in the different European countries. A number of educational programmers have already been developed. However, the ethical issues can not be overestimated as nurses' values may influence how a vulnerable patient is seen in daily care. The content of the education should also be tailored to take into account national and personal differences.
tarja.suominen@elisanet.fi
Contact Phone: 358405652205

PE3.3/11

Social and Health Care Services in Alytus and Klaipeda municipalities for Formerly Incarcerated Persons

Research study by the I Can Live Coalition,
December 2008 – February 2009
Rokas Uscila, Aušra Malinauskaitė

The I Can Live Coalition is currently implementing a project "Strengthening of primary and secondary HIV prevention among formerly incarcerated persons on local level", which

is a part of the UNDOC project "HIV prevention among injecting drug users and in prison settings in Lithuanian, Latvia and Estonia".

The main findings of the research study
The overview of laws and legal acts regulating social and health care services that are relevant to formerly incarcerated persons revealed that legal preconditions for delivery of the main social and health care services do exist. However, municipalities are particularly inactive in implementing the provisions that are mandated by the laws and legal acts. In practice, only those measures that are directly, clearly and imperatively stipulated in the legal acts are being undertaken. The scope of the measures that have been left to the discretion of municipalities or the measures that are recommended rather than mandated is very narrow. The municipalities limit their services to minimal cash allowances, some information and consultation services.
One of the problematic issues which is of particular importance in ensuring continuous health care (including HIV treatment and care) is transfer of patient information between an institution of incarceration and organizations and institutions that provide health care services on the community level. Immediate amendments and/or additions of legal acts are necessary that would define clear conditions and mechanisms of transfer of the information in order to ensure the continuity of health care and other necessary services for persons released from incarceration. Minimal attention is given to preparation of prisoners for their return to community. Persons on probation are privileged in this respect because they are required to attend mandatory informational seminars while in prison as a precondition for receiving the court's decision to get released on probation. The information provided in the seminars, however, is fragmented, most often limited to addresses of service providers without specifying services or conditions for receiving a service. Health care and legal issues are among least addressed. In addition, the information provided is often specific to the region of incarceration which does not necessarily correspond to the immediate residence of a person after the release.
Rehabilitation programs within prison received contradicting evaluation, i.e., respondents claimed that such programs are beneficiary but only for highly motivated participants. Special needs of prisoners were taken into account more seriously when they had serious illnesses (HIV, TB, etc), but the continuation of services after incarceration was not ensured.
Departments of social assistance and services in Alytus and Klaipeda municipalities are dominating in providing services to persons released from incarceration. After release former prisoners have very little information about institutions that provide social, psychological, health care assistance. In both municipalities, most information is accumulated in municipal departments of social assistance. However, both groups of respondents evaluated these departments in both municipalities quite poorly because of the negative attitude of employees of the departments towards the discussed target group and because clients were sent from one organization to another.
In both municipalities, the respondents lacked information about NGOs that provide services to them. The research also revealed that a coordinating person (a case manager) who would provide information about the full range of available services and who would serve as liaison between the client and institutions is missing. Currently, any formerly incarcerated acquaintance serves a source of information on available services relying on his/her personal experience. Both municipalities lack self-support groups where formerly incarcerated persons could share information.
Municipal departments of social assistance carry most of legal responsibilities for inter-institutional cooperation. However, municipalities have neither full information about the needs of the discussed group nor possibilities to ensure coordination of service delivery and liaising between various service delivery institutions.
In Alytus, services for persons released from prisons and dependent on psychoactive substances are poor. Only harm reduction services (needles and syringes, HIV testing, consultations, etc) are offered for these persons. Persons released from prisons would like to have pharmacotherapy with opioids or any other dependence treatment available to them. A much more favorable situation is in Klaipeda where Klaipeda Center for Drug Addiction offers a rather broad spectrum of such services.
Former prisoners are constantly stigmatized because of their former incarceration, their dependence on psychoactive substances, their HIV-positive status, etc. Thus, seeking employment and general integration into the society becomes especially complicated which, in turn, breads ground for possible recidivism.
Contact information: giedre@galiugyventi.lt

3.4 Societal Reactions on HIV/AIDS and Public Health Policies

PE3.4/1
Knowledge, Attitudes and Practices Survey on HIV/AIDS among people involved in labour relations from Moldova
Elena Jidobin[1], Ludmila Malcoci [2]
The International Labour Organization, Moldova[1]

Background. Moldova is a low prevalence country, but there are concerns about the effects HIV/AIDS could have on Moldova work force and labour market due to social and economic circumstances the country faces. The International Labour Organization (ILO) conducted the first Knowledge, Attitudes and Practices (KAP) survey on HIV/AIDS among people involved in labour relations in Moldova, with the main objective to identify the level of knowledge, attitudes and behaviour of employed population regarding HIV/AIDS. This assessment was imperative to identify key areas of intervention to reduce HIV impact on Moldova labour force.
Methods. The quantitative research has been coordinated by a national consultant; data has been collected between May and September 2008. Enterprises with more than 300 employees representing manufacturing industry (40%), transport (14%), energy and gas supply (12%), trade (8%), construction (8%) and other sectors, have been part of the survey sample with a size of 1217 people, 73% being from urban areas.
Results . KAP survey identified high level of stigma and discrimination towards people living with HIV (PLHIV). Every second respondent considered it is shameful to be HIV positive, more people from rural areas (60%) and (40+) age group agreed with this statement. Only 9% of all employees showed a tolerant attitude towards PLHIV. This rate is lower in rural areas, among people with vocational education background and among the 50+ age group. Two-thirds of respondents stated they would not work with an HIV positive colleague in the same office. This trend is mostly noticed among women (76% versus 70% men), in

rural areas (79% versus 71% urban) and in 50+ age group (80%). Only 49% of the respondents knew correct information about HIV. As regards behaviour trends, although the majority of respondents have access to condoms and accept using them, only 15% reported using a condom every time during sexual contacts over the past 12 months. The percentage of individuals with more than one sexual partner, who did not use a condom at their last sexual contact increases from 24% in the 17-29 years age group to 57% in the 40-49 years one. Therefore behaviour change programmes need to target these people, otherwise they are at increased risk. Furthermore, 96% of respondents did not take part in any education programmes on HIV/AIDS at their workplace; nevertheless every second person mentioned it is very important their company has an HIV/AIDS workplace policy. Alarming is also the rate of 34% of respondents who took the HIV test at their employer's request, which is against the national legislation.
Conclusion(s) . Survey findings highlight a high level of stigma towards PLHIV, a medium level of knowledge about HIV which favors further HIV spread and risky behavior practices due to limited access to information about HIV among employed population and low commitment on behalf of private sector representatives to address HIV/AIDS issues at the workplace. Main findings shall serve as background for further advocacy and mobilization of world of work actors in delivering HIV prevention messages with a focus on rural population.
elenajidobin@gmail.com
Contact Phone: +373 68121215

PE3.4/2
Patents, Pills and Global Trade: Economic Perspectives on Intellectual Property and Public Health
Katherine Boyle
National University of Ireland, Galway Ireland

Background: The intersection of intellectual property rights and global health perplexes economists and policymakers alike. The quest to provide generic, essential medications to developing and middle-income countries that cannot afford to trade with large pharmaceutical companies has led international governing bodies to make provisions to encourage trade among these entities. However, when examining the Pharmaceutical Researchers and Manufacturers of America (PhRMA)—the trade association that represents over one hundred U.S. and international pharmaceutical companies— and its treatment of two developing countries with similar universal healthcare plans, it becomes evident that pharmaceutical corporations treat developing countries differently based upon a variety of economic factors. While developing countries use compulsory licenses, or legal vehicles utilized to break patents for essential medications, countries that issue compulsory licensing threats suffer different levels of economic retaliation from both the U.S. Government and pharmaceutical companies (Abbott and Van Puymbroeck 2005).
Methodology and Case Studies: This paper will examine the trade patter ns and compulsory licensing history of Thailand and Brazil. Both countries have maintained steady compulsory licensing threats into 2008. They are both middle-income countries with similar universal healthcare plans, manufacturing capabilities, and pharmaceutical needs. Despite these similarities, Thailand and Brazil have experienced different reactions from pharmaceutical companies. This paper seeks to address this puzzling question: Why do PhRMA companies react differently to the compulsory licensing threats of developing countries? Some economists believe that pharmaceutical companies decide how and when they will retaliate against compulsory licensing threats through an evaluation of industry-specific trade, or the amount of pharmaceutical trade conducted by a given country. Others believe that pharmaceutical companies will examine levels of bilateral trade between the U.S.—the country that protects the intellectual property rights of PhRMA—and a given developing country to decide whether or not to retaliate.
Results: This paper finds through interviews, economic data, and case studies that a combination of both pharmaceutical and overall trade between PhRMA companies, the U.S. and developing countries indicates how PhRMA will react. This combination of pharmaceutical and bilateral trade indicates that industry-specific economic factors cannot act independently of politics or government policy. Section I. explains the variation within the cases of Thailand and Brazil. Section II. offers supporting formulas and evidencefor the first economic theory that levels of pharmaceutical trade affect how PhRMA reacts to compulsory licensing threats. Section III. examines the second theory that levels of bilateral trade affect how PhRMA reacts to compulsory licensing threats. Section IV. explains my argument that both levels of pharmaceutical and bilateral trade affect PhRMA's retaliation or acquiescence and offers conclusions for economic theory.
Conclusions: This paper shows that while the tenets of neoclassical economic theory sometimes dictate the behavior and choices of various companies, political factors can counteract or negate the rational choices of individuals and corporations. This necessitates greater involvement from the international community and individual countries themselves.
katherinemboyle@gmail.com

PE3.4/3
HIV prevention program among youth in Romania
Anca Elena Luca[1], Florin Lazar[2], Andreea Graciela Blaglosov[3]
Romanian Children's Appeal Foundation Romania[1 2 3]

Background. In Romania over 60% of all registered people living with HIV/AIDS are 17-20 years old youth with parenteraly-acquired HIV infection in early '90. Although Romania is a low-prevalence country for HIV with less than 0.1% among adults in 2005, there is a public concern for HIV prevention programs targeting young people supported by surveys among general population showing a decreasing age at first sexual contact. Since 2002 the Ministry of Education included HIV/AIDS topic into a general health education curricula (as an optional course), but no impact assessment was carried out. The program implemented by Romanian Children's Appeal Foundation between 2006-2008 aims to increase the level of knowledge on HIV issues and also to encourage the acceptance of HIV infected people in community through information sessions to high school students.
Methods. An AIDS Awareness program was delivered by teachers through the formal educational system in 11 counties of Romania. After a one day training with about 1,800 teachers they have delivered HIV-based information sessions into 377 high schools. The information on HIV/AIDS issues was presented to 152,000 students. The impact of the program has been evaluated with a questionnaire applied to one control sample of students before being included into the program (baseline) and then

to another treatment sample of students, after. There were about 33,000 questionnaires completed. Two core indicators from UNAIDS („comprehensive knowledge of means of HIV/AIDS protection" and „positive attitude on stigma") have been used and then compared with national survey (2004). Each indicator was composed by summing the right answers to 4 and 5 questions.
Results. Analyzing the number of right answers about HIV transmission ways and prevention we observe that in all the counties the level of knowledge has increased. The baseline revealed that between 9-21% of students had 4 right answers, and after the program was delivered the percent has increased to 13-38 %. Similarly, the attitudes of students about stigma and acceptance of HIV people improved, from 4-9% before the program was implemented to 5-14% after. National survey showed that only 2.1% of 15-19 years old had correct information on HIV transmission and 14.7% were displaying a an acceptance attitude for people living with HIV.
Conclusion(s) The number of students well informed on HIV/AIDS has increased due to program delivered. This awareness has great importance in prevention of transmission of HIV in the population. There are many ways of informing people and some of them can have greater impact than others. Because of the institutional involvement in the program the Ministry of Education takes into consideration to implement it in all the counties.
ancaluca@gmail.com
Contact Phone: +40721957965

PE3.4/4
HIV /AIDS Prevention Strategies in Transforming Societies:
Esther Kibuka-Sebitosi
University of South Africa, Centre for African Renaissance Studies South Africa

Background: Prevention of HIV /AIDS in war and post-conflict situations continues to be a major challenge for developing countries world wide. The purpose of this paper is to highlight strategies for preventing HIV/AIDS and other endemic diseases in poor-resource settings in post-war and conflict countries drawing lessons from Northern Uganda and Southern Sudan.
Methods: Utilizing a mixed method approach of qualitative and quantitative research methods, data was collected from adult predominantly male respondents from a convenient sample. The respondents were attending a capacity building programme conducted by the researcher. They included Governors, Directors of Government Departments, Judges and other Public servants. Questionnaires were designed to probe for misconceptions, myths as well as identify prevention strategies in place for HIV/AIDS. The content knowledge of the disease was examined after which workshops; lectures and experiential learning to address the gaps were provided. Onsite visits were made to Sudan and Uganda where field notes, semi-structured interviews and focus groups discussions were conducted within communities and Government Departments. Mentorship was provided for policy makers and implementers where possible within Sudan and during the experiential learning phase.
Results: The prevention strategies comprised of four pillars namely Education; Capacity building, developing and implementing Appropriate Government policies and Experiential learning. Action research revealed many myths and misconceptions among the communities and respondents. These ranged from the virus structure, mode of transmission and stigma/discrimination. The indigenous knowledge and practices were identified as key elements to be taken into consideration in prevention strategies. The beliefs and traditions such as polygamy, right of passage ceremonies for instance circumcision were some of the major challenges facing prevention strategies.
Drug to drug interactions might be taking place among people with HIV+ or with those taking TB drugs and/or those taking Traditional medicines (close to 80% population visit traditional healers). The post war and conflict status coupled with lack of infra-structure, political instability and globalization continues to hamper prevention of HIV/AIDS. However, major strides are being undertaken since the inflection rates are quite low in Southern Sudan. The role of resources (oil, minerals and Agricultural land) amidst fear and poverty among communities are discussed.
Conclusion: A prevention Model in transforming societies and post-war and conflict in resource–poor settings is provided Comprising:
Nutrition
•
Health and Wellness campaigns
• Education about HIV/AIDS and other endemic diseases
•
Economic development and Poverty reduction strategies
• Addressing gender imbalances (putting Women at the core of prevention)
consortiumafrica@yahoo.com
Contact Phone: +27 12 3203180

PE3.4/5
Experience of the Vilnius city pharmacists selling sterile injecting equipments for IDU's
Romualdas Gurevicius [1], Loreta Stoniene [2], Saulius Čaplinskas [3]
Institute of Hygiene [1], UNODC Project Office for the Baltic States [2], Lietuvos AIDS centras / Mykolas Romeris University [3]

Background: The purpose of the study was to analyze pharmacists experience in selling sterile injecting equipment for IDUs in the Capital city Vilnius. The study was supported by United Nations Office on Drugs and Crime project "HIV/AIDS prevention and care among injecting drug users and in prison settings in Estonia, Latvia and Lithuania".
Methods: Statistical unit for sampling – pharmacies. A 50% simple random sample study was accomplished in capital city. From 1 up to 3 pharmacists were interviewed in each pharmacy, in total 251 pharmacies, 11 of them working 24 hours. Average age of the respondents – 42.6y. (SD=12.02), average work experience – 20.4y.(SD=12.3).
Results: Absolute majority (91.2%) of the Vilnius pharmacists reported that IDUs visited the pharmacy last month, one third of them noted, that in average there were 6-10 (27.1%) and 10-50 (31.0%), one fifth that more than 50 (21.4%) IDU's visits per month. More than 50 IDU's visits per month were in pharmacies that are near the railway station (57.1%) and gypsy's tabor (46.2%). More IDU's visit pharmacies which are located in the big market centers (χ^2=13.6,df=3,p=0.003), compared to that in the outpatient clinics/hospitals (6.1%) or standing alone (8.3%). It was found, that according to the pharmacists, more than half of the IDU's come to the pharmacies alone, at the different times of the day, there are more males than females, and most of them are 20-30 years of age.

For more than a half (62%) of the pharmacists it's difficult to recognize IDU's externally. The main attribute, which leads to the presumption that the client belongs to the group of IDUs - a saleable item – one syringe/needle and sterile water for injection. Another sign – appearance – strange look/eyes, skinny body and tremor, and wish to receive requested and hasten away.

70% of the pharmacists, independently from their position, education and geographical location of the pharmacy, indicate that IDUs cause additional troubles for them. 90.7% of them speak about those problems with their colleagues, 65.2% with relatives and 50% with the employer. It is tending to discuss about those problems with the colleagues among less experienced (7-17 years of experience) pharmacists ($\chi 2=9.7,df=4,p=0.046$), and with the employer – more experienced (25-30 years of experience) ($\chi 2=16.6,df=4,p=0.002$).

Analysis of the possibilities to participate in HIV/AIDS prevention revealed, that the majority of the pharmacists would agree to distribute information about HIV/AIDS, hepatitis (62.2%), safer drug use and safer sex (respectively about 53%) and to provide information about drug treatment services (48.2%). Only 9.2% of the respondents would agree to change syringes for all IDU's and 16.3% - to change syringes for programme participants. 84.5% stated that for this activity they would need additional postgraduate education, 85.7% of them would feel unsafe, and 71.3% would feel uncomfortably.

Research showed that 39.0% of the pharmacists think that they could give advises related to safer drug use, but only 26.9% of them talk with the client currently. More experienced pharmacists tend to talk with the clients more often: those who have more than 31 years of work experience (29.6%). Meanwhile when the work experience is shorter the consultations with the client are more rare ($\chi^2=10.3,df=4,p=0.035$). Pharmacists that had participated in the trainings on HIV/AIDS prevention/treatment tend to talk with the clients more often (respectively 36.8% and 21.1%) about the harm related to drug use ($\chi^2=4.4,df=1,p=0.037$).

Conclusions: IDUs frequently visit the pharmacies, but for more than a half of the pharmacists it's difficult to recognize them superficially. More frequently with this problem confront the pharmacists who work in the pharmacies of the market centres. More frequently, IDU's come to the pharmacies alone and at the different times of the day. The main portrait of the IDU, according to the pharmacists of the capital city – 20-30 years old men, buying one syringe and sterile water for injection, rushing, nervous, with the strange sight. Experienced pharmacists who had not participated in the training courses before, tend to speak with IDU's about the harmful effect of drug use.

Contacts:loreta.stoniene@unodc.org

Scientific Abstracts - Late Breaker Presentations

www.aidsvilnius2009.com

1.1 New ARV therapy strategies

LBPS1.3/1

Whey Protein supplementation deters micronutrient deficiencies in HIV+ drug users Jeannie Gibbs, Mariel Selbovitz, David Miller, New York State AIDS Institute, Joel Zive, United States

Background: Considerable data exists that supports significant benefits of whey protein supplementation for maintaining lean body mass and decreasing pro-oxidative stress. Many of the available therapeutic nutritional (eteral) formulas cause a substantial decrease in appetite due to their dense caloric attributes, which deters nutritional intake from food sources. Studies have shown that the presence of CD4 count < 200 with abnormally low glutathione levels inside CD4 cells was highly predictive of poor survival rates. Glutathione is the major defense of CD4 cells against oxidative stress. Persons with both CD4 counts < 200 and very low glutathione levels had an estimated three-year survival time as low as 20%, compared to 60-80% survival for those with CD4 counts < 200 and adequate glutathione levels. Method: A commercially available whey protein was identified with characteristics identified in peer-reviewed publications as encouraging patient persistence. Isopure is made from 100% pure ion-exchange whey protein isolate. Isopure contains no sugar, lactose, byproducts, impurities or preservatives. Isopure contains 40 grams of protein which helps people living with AIDS to reach the necessary recommended daily servings of protein, which for a person living with HIV which is 1.5 grams of protein per pound of body weight. This whey was palpable without reducing appetite. Isopure product (20 fluid ounces-40 grams) was administered to 10 patients at an AIDS Service Organization in a resource-poor area of the South Bronx daily over a course of 8 weeks in both powdered and liquid form. Results: Patients receiving Isopure showed significant adherence to the consistent utilization of the product without any reported adverse effects. 10 HIV + patients under strict medical supervision with histories of long-term consistent drug use reported weight gain, decreases in nausea and vomiting, and increased energy. No change in appetite was reported. These outcomes directly impact the pathogenesis and proliferation of resistant profiles of minority subspecies of HIV by optimizing the metabolism of HAART regimens. Research has shown that glutathione (GSH) deficiency is associated with impaired T cell functioning and poorer survival, and is more common in HIV+ active drug users than HIV+ individuals who did not report histories of long-term consistent drug use.Conclusion: Nutritional supplementation with Isopure whey protein is a cost effective means of deterring the onset of HIV related micronutrient deficiency. Preliminary data indicate that the addition of whey protein as a significant portion of total protein intake in patients who maintain an adequate total caloric intake increases body weight and shows elevation of glutathione (GSH) content of mononuclear cells toward normal levels. A larger controlled trial will be needed to determine other considerations of how Isopure benefits survival and statistical significance.References 1. Journal of Virology 2002 Jan/Feb (5)2. Whey Protein and HIV/AIDS Stagnito Publishing 20063.Whey Proteins and HIV/AIDS, U.S. Dairy Export Council and Dr. Paul J. Cribb from Stagnito Publishing, Jan. 20064. Herzenberg LA et al. Glutathione deficiency is associated with impaired survival in HIV disease. Proc Natl Acad Sci 94:1967-72, 19975. Droge W and Holm E. Role of cysteine and glutathione in HIV infection and other diseases associated with muscle wasting and immunological dysfunction. FASEB J 11:1077-89, 19976. Counos G. (2000). Whey protein concentrate and glutathione modulation in cancer treatment. Anticancer Res. 20 (6C):4785-4792; Y.F. Moreno et al. Features of whey protein concentrate supplementation in children with rapidly progressive HIV infection. Journal of Tropical Pediatrics, 2006; 52(1): 34-387. Micke, P, Beeh, K.M. & Buhl, R. (2002) Effect of long term supplementation with whey proteins on plasma glutathione levels of HIV infected patients. European Journal of Nutrition 41:12-188. Berkhout et al, Characterization of the anti-HIV effects of native lactoferrin and other milk proteins and protein-derives peptides. Antiviral Research 55:341-355Contact Phone: 001 718 299 9429

2.3 HIV-Prevalence/Incidence measurement

LBPS2.3/1

HIV/AIDS among women in Eastern Europe: Recent developments in the Russian Federation and the Ukraine

Dr. Larissa Burruano, MPH Germany
Yurj Kruglov, PhD Institute of Epidemiology and Infectious Diseases, Kiev, Ukraine

Background

The impact of gender on HIV/AIDS is an important factor in understanding the development and evolution of the HIV/AIDS epidemic in Eastern Europe. Whilst the epidemic in Europe and North America has a rather more male face, in Eastern Europe more and more women are affected. The Russian Federation and the Ukraine are among the Eastern European countries with the fastest growing number of cases of HIV. According to the data from UNAIDS nearly 90% of newly reported HIV diagnoses in Eastern Europe in 2006 were from the Russian Federation (66%) and the Ukraine (21%). An example of the rapidly spreading HIV/AIDS epidemic in the Russian Federation and the Ukraine, and the impact of gender will be analysed, demonstrating the importance of integrating gender into HIV programmes that increase women's access to information.

Methods

Reported HIV/AIDS cases from the official epidemiological register of the Ukrainian Centre for AIDS Prevention between 1995 and 2006 alongside data from the Russian Federal AIDS Center were analysed. Joint United Nations Pogramme on HIV/AIDS country fact sheets were reviewed and analysed, and this information was supplemented with published HIV prevalence and sexually transmitted disease case reporting information, unpublished reports and expert evaluations.

Results

In the newly registered cases of HIV, the proportion of women rose in the Russian Federation from 13.0% in 1995 to 44% in 2006 and in the Ukraine from 37.2% in 1995 to 41.9% in 2006. There has also been a considerable increase in mother-to-child-transmission of HIV since 1995. Between 1987 and 1994 the proportion of children among the people newly infected with HIV in the Ukraine was 2.2%. In 2006 it was 17.6 %. In 2006, 16,078 new HIV cases were registered in the Ukraine and 39,652 new HIV cases in the Russian Federation.

Conclusions
An analysis of the impact of gender on the HIV/AIDS epidemic in both countries demonstrates the importance of integrating gender into access to education and information. Women's empowerment is vital to reversing the epidemic in Eastern Europe. Without a considerably more efficient package of countermeasures, together with effective prevention and intervention, the HIV/AIDS epidemic in the Russian Federation and the Ukraine may soon become a burden too difficult for them to handle by themselves, with repercussions for neighbouring European countries.
Interdisciplinary cooperation between medical experts, experts in base health work, medical research scientists and epidemiologists needs to be developed further to allow people with HIV/AIDS, regardless of their sex, background and social position, to share in the results of the research and the advances in the prevention and treatment of HIV/AIDS.

2.4 Diagnostics & Monitoring Tools aimed at hard-to-reach populations

LBPS2.4/1
CD4 count as a tool to monitor the progression of HIV infection
Emile Badibanga M.D [1], Huno Kabongo M.D [2], Dr Mutunga Kandayi [3], Independant researcher , Congo Espoir USA, United States, University teaching Hospital of Lusaka [2], Zambia, Amo Congo [3] , The Democratic Republic Of The Congo
The treatment of HIV has been the most complicated medical question especially in the third world country. The CD4 count used in most country as a tool for monitoring patient may be influenced by more other parameter none deeply studied yet. **Objective:** To determine the reason for a slow recovery in the presence of good compliance and non resistance to HART.**Methods:** Three hundred patient diagnosed with HIV by rapid test and confirmed by Elisa were followed between July 2006 to June 2008. The cohort studied were used with relative risk.
Results: lost contact with 15 % of patient , 30 % were successful with the HART which means the increase in CD4 were as expected.45 % didn't go as we expected and 10 % was undetermined. We were concern about these percentage then we decided to go deeper with other parameters like socio-economic status, nutrition, gender and stress.
Conclusion: the out come of response to the HART in the Congo may be influenced by the nutrition, stress environment, gender and others Contact Alt Email: emilebula@yahoo.comContact Phone: 3016856388

LBPS2.4/2
Less complex and more affordable CD4 and CD4% follow-up diagnostics for HIV/AIDS patients.
Wolfgang Goehde, Westfälische-Wilhelms-Universität, Medical Faculty, Germany

The introduction of a new technique for the absolute sample volume counting of the CD4+ T lymphocytes for adult patients and for the determination of CD4+ percentage from all lymphocytes for pediatric samples has changed the situation of HIV/AIDS patients in Africa and many countries in Asia remarkably.

This technique (CyFlow) is suitable to be used in centralised laboratories as well as in remote areas. The test costs could be reduced to 1,75 for CD4+ analysis and to 2,50 for CD4+ percentage determination.

At this conference two new developments are introduced in Europe for the first time:

1. Lyophilised monoclonal CD4 and CD4/CD45 antibodies in ready to use sample tubes which do not need cooling chain for reagent delivery and storage and

2. A fully automated procedure for sample preparation (antibody staining) and analysis which allows for the first time to handle patient blood without pipetting steps by hand.

The CyFlow CD4 technology has been successfully used in more than 1000 laboratories in Africa, Asia, Latin America, USA and Europe; this includes laboratories in Serbia, Bosnia Herzegovina, Georgia, Uzbekistan and other places in Europe. This technique is also part of UNICEF, WHO, Global Fund and PEPFAR programs in many countries. The new low cost and easy to handle technique has the potential to offer the life-long follow-up immunodiagnostics to all patients who need this service.
Contact Alt Email: goehde@partec.com
Contact Phone: +49 3581 87 46 38

LBPS2.4/3
Capacity building in HIV surveillance and strategic information
Ivana Bozicevic [1], Danijela Leso [2], Lucija Zigrovic [3], Stjepan Oreskovic [4]
[1 2 3 4] WHO Collaborating Centre for Capacity Building in HIV Surveillance, Andrija Stampar School of Public Health, Croatia

WHO Collaborating centre for Capacity Building in HIV/AIDS Surveillance was established in 2003 under the framework of the World Health Organisation's Project "Capability Strengthening for Improved Utilisation of Financial Resources to fight HIV/AIDS". The Centre is a part of an international collaborative network carrying out activities in support of the WHO's programme. The Centre is based at the Andrija Štampar School of Public Health, Medical School, University of Zagreb, Croatia.

Objective: The mission of the WHO Collaborating centre for Capacity Building in HIV/AIDS Surveillance is to contribute to increasing capacities in the implementation of effective, sustainable and context-specific surveillance systems for HIV/AIDS, which enable evidence-based development of HIV prevention, care and treatment.
Methods: The WHO Collaborating centre for Capacity Building in HIV/AIDS Surveillance works toward accomplishing this by conducting training courses in HIV surveillance, providing direct technical assistance in aspects relevant to HIV/AIDS surveillance, offering training manuals and publications on HIV/AIDS surveillance-related issues and research related to HIV surveillance.
Results: Since 2004, over 650 professionals from 58 countries of Europe, North Africa and the Middle East have been trained in HIV surveillance. Participants came from the neighboring countries of Eastern Europe, but also as far as Iran, Iraq, Yemen, Sudan, Pakistan, Djibouti and Somalia. Since 2005, technical assistance in design and implementation of HIV surveillance systems and surveillance surveys, and training of national and local

surveillance staff was provided to: Azerbaijan, Bosnia and Herzegovina, Iran, Lithuania, Macedonia, Montenegro, Pakistan, Serbia, Sudan, Yemen and Georgia. In Bosnia and Herzegovina three RDS studies were carried out on injection drug users. The Centre has carried out several probabilistic-based surveys among injection drug users, men having sex with men, commercial sex workers and youth.

The Centre currently offers 17 different training courses. In 2008, 3 new Training courses were implemented: Training course in designing protocols for population-based and clinic-based HIV surveillance surveys, Community-based HIV survey using time location sampling and Monitoring of resistance to antiretrovirals. Additional new courses are planned for 2009, to be developed both in English and Russian languages.

Conclusions and recommendations: The WHO Collaborating centre for Capacity Building in HIV/AIDS Surveillance aims to implement a minimum of 3 training courses a year focused upon the development of capacity involved in the planning and delivery of HIV surveillance systems.
The WHO Collaborating centre for Capacity Building in HIV/AIDS Surveillance will continue to work on research projects on HIV surveillance by piloting and using newly developed research methods as that is necessary for both teaching and provision of technical assistance
The Centre will proceed with the development of Russian speaking courses dedicated to aspects of HIV/AIDS surveillance and continue to provide direct technical assistance in areas relevant to HIV/AIDS surveillance
WHO Collaborating centre for Capacity Building in HIV/AIDS Surveillance will make training courses available to participating countries based on the demand from countries and development agencies involved in supporting implementation of the National AIDS Programs.
Contact Alt Email: lucija.zigrovic@gmail.com

3.1 Drug Use, Sexuality and HIV-protection/risk behaviour

LBPS3.1/1
Young people and drugs – the need for harm reduction approach
Simona Merkinaite, Eurasian Harm Reduction Network, Lithuania

Background: Young people under 25 accounted for an estimated 45% of all new HIV infections in 2007. Across Eastern Europe and Central Asia, as much as 25% of injecting drug users (IDUs) are younger than 20.

Objective: To assess the scale of injecting and relative responses in Central and Eastern European countries, with the goal to provide recommendation for service providers and identify the role for harm reduction among young people.

Methods: A research involving standardized questionnaire, assessment and analysis of existing resources and expert interviews on injecting drug use, risk behaviors, drug related harms, availability of services and their compliance with the international child and human rights standards in 9 counties of Central and Eastern Europe: The Czech Republic, Estonia, Georgia, Hungary, Romania, the Russian Federation, Serbia, Slovenia, and Ukraine.

Results: Overall data is scares, a big proportion of injectors are young people with estimated 75% under 25 in Estonia or 80% under 29 in Romania with big proportion of them coming from ethnic minorities or being street children.
Initiation into drug use starts at around 15-19 in most of countries assessed and drops to around 12 – 14 in Romania, Russia and Serbia. Wherever the behavior studies are available, they show that young people often start to inject under the pressure from peers – in Ukraine study for 56% of boys and 72% of girls the first injection was unplanned and often occurs after exposure to injecting among friends, with around 32% of girls initiated by their sexual partners.
The drug patterns are also diffuse: while opiates are the most common drug to inject, amphetamine type stimulants are becoming popular within both - club goers and street kinds (usually injecting home made stimulants).
At the same time, most of harm reduction services are not tailored to the needs of young people, with virtually all of them focusing on opiate users. They lack peer interventions, anonymous and free of charge HIV and hepatitis testing.
In most countries there are age restrictions in accessing drug treatment and needle exchange programs. For example Russia, where according to data available HIV prevalence among young people may reach 50%, refuse to work with youth under 18 due to fear of being charged with violations of drug laws (aiding and abetting). Criminalization of drug possession for adults also result in young peoples' involvement in drug dealing, as reported from Romania.

Conclusion: Young people at risk of injecting, or those already experimenting with injecting drugs find themselves isolated from health services increasing the risks for health and social harms. Denying young drug users access to life-saving drug treatment and other harm reduction services contributes to the risk environment surrounding their use) and violates their right to health and well-being. The geovernments, health care providers and harm reduction services should work together to create enironment in which young people would access wide scale of services, including harm redeuction.
Contact Phone: +37052609007

LBPS3.1/2
RISK FACTORS AND STI INFECTIONS AMONG PRISONERS IN ZANZIBAR
MOHAMMED DAHOMA[1], ESTHER MTUMBUKA[2], ASHA OTHMAN[3], ASHA SEHA[4], ALI ABDULLAH[5]
ZANZIBAR AIDS CONTROL PROGRAMME-MINISTRY OF HEALTH & SOCIAL WELFARE ZANZIBAR [1 3 4], CLINTON HIV AIDS INITIATIVES [2], Correctional Facilities- Special Forces [5], United Republic of Tanzania,

INTRODUCTION: Monitoring HIV infection in closed setting and in societies with concentrated epidemics in Africa has been of great challenge. Currently, Zanzibar has been documenting high level of sexual and drug related risk behaviours among the Most at Risk Populations namely IDUs, MSM & Female sex workers. The levels of STI infections in these sub-populations have far outweighed those documented in the general populations. This assessment was designed to address the challenges of the scant available information in prisons hampering effective designing of HIV related public Health interventions.

OBJECTIVE: To determine the magnitude of risk behaviours and accompanying STIs (including HIV) among people in prisons settings.
Study Methods: A Cross sectional Peer Driven Rapid assessment was undertaken to 400 consented Prisoners in Zanzibar coupled by VCT service access. The study also applied a Semi-structured Questionnaire with biological sample collection (Blood and Urine). Collected blood was used to test for HIV; Syphillis; Hepatitis B &C while rapid test were used to determine the presence of excreted drugs in urine. Sero-positively diagnosed study participants were referred to the nearest Care and treatment centre for further appropriate management.
Results: A total of 400 prisoners (sentenced and not sentenced) were included in the study with 47.6% being in the age group between 25-34 years. Majority were -Singles (40.8%). 51.9% had attained primary level of education with 24% of participants have served between two to four times. 23% acknowledged to have been involved in MSM activities relations. History of past STI was reported by 22%of study participants with 6% of being IDUs. Among IDUs 40% reported sharing of paraphernalia with 22% of them practising "flash blood". Overall infection was 2.8% for HIV; 7.1% for hepatitis B; 4.8% -Hepatitis C and 3.8% with Syphillis.
Conclusion: Based on study findings urgent public health interventions targeting at Risk reduction with prevention, care, treatment and support services are of paramount importance for the incarcerated populations in Zanzibar.
Contact Alt Email: zacp@zanlink.com
Contact Phone: +255-24-223 4044

LBPS3.1/2
Social network correlates of unprotected sex in Russian IDU sexual partnerships
Gyarmathy VA.[1], Li N.[2], Tobin, KE.[2], Hoffman, IF.[3], Kozlov, AP.[4], Latkin CA.[2]
[1] European Monitoring Centre for Drugs and Drug Addiction, Lisbon, Portugal
[2] Johns Hopkins Bloomberg School of Health, Baltimore, MD, USA
[3] University of North Carolina at Chapel Hill, Chapel Hill, NC, USA
[4] Biomedical Center, St. Petersburg State University, St. Petersburg, Russia

Background: Russia's HIV epidemic is among the fastest growing worldwide. Historically driven by IDUs, the Russian HIV epidemic is spreading into the general population. Sexual contact is becoming an important transmission route with high-risk individuals acting as potential 'bridges.' Determinants of sexual risk among IDUs must therefore be elucidated to inform prevention strategies.

Objective: The correlates of unprotected sex in the sexual partnerships (dyads) of Russian IDUs are examined at the individual, dyad, and network level.

Methods: IDUs (N=502) were recruited in St Petersburg, Russia, for a network HIV prevention intervention (12/2004-04/2008). GEE models were used to assess associations with unprotected sex within sexual partnerships (dyad N=645).

Results: Of the dyad-level characteristics, receptive syringe sharing with the sexual partner, social exposure (hanging out with network member [NM], seeing NM daily, living with NM), and being HIV positive concordant (both the participant and the NM were reported being HIV+) were associated with unprotected sex, while HIV discordant couples (one reported HIV+ and the other HIV-) were less likely to have unprotected sex. No individual-level or social network-level variables were significant.

Conclusion: There is a combined risk of unsafe injecting and unsafe sexual behaviors among Russian injecting dyads. Both these risks domains must be addressed simultaneously in interventions that target the injecting partnerships of IDUs to reduce the spread of HIV in Russia. Free and confidential HIV testing is also critically needed for all IDUs, and regular HIV testing combined with couples counseling should be available for those IDUs who are both injecting and sex partners.
Email: anna.gyarmathy@emcdda.europa.eu

3.2 Prevention: Concepts and Effects

LBPS3.2/1
On-site HIV-Prevention and Health Promotion in the Sex Industry.
An Evaluation of a Pilot Project in the County of Solothurn, Switzerland
Raphael Calzaferri, School of Social Work, University of Applied Sciences Northwestern Switzerland, Switzerland
Daniel Gredig, School of Social Work, University of Applied Sciences Northwestern Switzerland, Switzerland

Background:
With support from County government, the NGO „Lysistrada" has developed a concept for health promotion and the prevention of HIV and other STI for female sex workers (FSW) in the County of Solothurn. The concept comprises two elements:
1) Implementation of Minimal Standards for HIV Prevention in the Sex Business (Standards). The Standards require that sex businesses guarantee: a) free access to condoms and lube for FSW and their clients and b) free access to information for FSW and their clients; c) free access for prevention workers.
2) Implementation of the prevention program APiS (Aids Prevention in Sex business). APiS is targeted to migrant sex workers and works on a basis of peer education. "Lysistrada" works with four mediators from different cultural backgrounds and speaking different languages. These mediators provide migrant FSW with information and prevention materials. Further, they offer counseling regarding health, psycho-social and legal problems and broker contact to experts in these matters.

Objective of the Evaluation:
The evaluation was to determine if und how the concept could be implemented, and if its set-up proved adequate to the sex industry in place.
Further it was to establish, if FSW considered the services supportive and if they thought them to be helpful for an improvement of their condom negotiation skills, their handling of clients who do not cooperate, and condom use also under economic pressure or/and drug use.

Methods:
The implementation of the Standards and APiS, the number of sex businesses included and the compliance with the Standards in these places were assessed by standardized instruments. The effects of the implementation of the Standards and the services offered by APiS were established from the perspective of the sex

workers and assessed in qualitative interviews with a purpose sample (maximal variance).

Results:
This presentation concentrates on the results referring to the first complex of research questions:
"Lysistrada" found 32 sex businesses located in their area and visited each of them several times in the first year of the pilot phase. So, the owners of 29 sex businesses could be motivated to implement the Standards. The owners' compliance with the Standards was high. The evaluation shows: Once adopted, the Standards will be kept. To a large extent this success seemed to be due to the fact that "Lysistrada" was able to build up a working relationship with the owners.
During the first year of activity, the mediators from APiS reached a total of 835 FSW working in different sex work places, like brothels, clubs, cabarets and the street.

Conclusion:
On the basis of the existent data, the concept developed by "Lysistrada" proves to be adequate to the sex industry in their area. Addressing the owners of sex businesses directly turned out to be the key feature of this project and made access to FSW possible.
However, the "Lysistrada's" interventions and their effects are limited. Experiences from the first year of activity show: FSW working in large and middle sex business places could only be reached once due to the often short stays of the FSW at one place. Therefore, the frequency of visits should be increased.
Email: raphael.calzaferri@fhnw.ch

3.3 Care and Support

LBPS3.3/1
"Home-based care with HIV/AIDS: A Qualitative Phenomelogical Study of Experiences of Patients' Caregivers in Western Kenya"
Adetunji H.[1], Murage-Rowa L.[2]
[1] Oxford Brookes University, Public Health, Oxford, United Kingdom
[2] Lucy Murage-Rowa, Micronutrient Initiative – Kenya, Canadian Cooperation Office, 1st flr, Purshottam Place P.O. Box 1591(00606), Nairobi, Kenya. (MSc student -formerly at Oxford Brookes University, Oxford, United Kingdom)

Background: The number of people living with HIV/AIDS in Kenya has increased at an alarming rate over the years. As the demands for care of people living with HIV/AIDS increases, home based care models have been initiated and become part and parcel of many countries in Sub-Saharan Africa. The components of home-based care models vary and so does the quality of services provided in these programs. Although many International and Local organizations are providing supportive services for home-based care of HIV/AIDS patients, the family members bear the burden of providing much of the care.

Objective: The purpose is to explore the Caregivers' experiences in provision of care at home for persons with advanced HIV/AIDS so as to create a better understanding that can inform practice.

Methods: This is a qualitative phenomenological study of home caregivers caring for people living with HIV/AIDS. In-depth interviews were conducted with 10 caregivers (5 each) in urban and rural Western province of Kenya. Interviews were tape-recorded, transcribed, and analyzed qualitatively.

Results: The results show that care giving is dynamic; and involves both positive and negative experiences and perceptions. The negative experiences and perceptions include: helplessness and hopelessness, emotional stress, reduced social interaction, poverty, inadequate support, negative cultural beliefs, stigma and isolation. The positive experiences and perceptions include: increased knowledge and skills, increased confidence and networking as well as self-fulfillment. Caregivers use various coping strategies in caring such as: spirituality, interaction with others, denial and caregiver adjustment. These findings were found to be similar for both rural and urban caregivers.

Conclusion: The study concludes that home-based care is useful in the care of people living with HIV/AIDS, though it goes on with positive and negative experiences or perceptions for the caregivers. Appropriate recognition policy, HIV/AIDS related education, supporting agricultural sector, financing of small business and counseling services are recommended.
Email: hadetunji@brookes.ac.uk

LBPS3.3/2
HIV+ WOMEN: PSYCHOSOCIAL FEATURES and ADHERENCE DURING PREGNANCY
Silvia Compostella [1], Cristina Muscio [2], Salvatore Casari [3], Maria Antonietta Forleo [4], Giampiero Carosi [5]
[12345] Spedali Civili di Brescia,Infectious Disease Unit, Brescia, Italy

Background: HAART during pregnancy resulted in substantial improvement in births from HIV+ mothers. These treatments, to be efficacious, need a best adherence which is an added weight for HIV+ women who desire to be mother but are hindered owing to psychological and social aspects.
Objectives: 1)To assess relations between adherence and pregnancy; 2)To evaluate psychosocial features of HIV+ women.
Methods: Observational study on HIV+ women. All the subjects were studied by a psychologist through: clinical interview, Minnesota Multiphasic Personality Inventory-MMPI, Zung Self-Rating Scale, STAI-X2 (State-Trait Anxiety Inventory X2), a stressful life events questionnaire and an adherence questionnaire. Interviews were conducted from January through February 2009 and statistical analysis (SPSS package) is in progress.
Results: 44 HIV+ women (age 18-43, mean 31), 23 Italian and 21 immigrants, interviewed in the first 6 months of pregnancy: 25 have sexual risk factor, 13 unknown, 6 IVDU. 19 women don't inform their family about HIV infection. 33 women are on HAART: 19 started off with HAART before their pregnancy, 14 after their pregnancy; 22 (66,7%) are completely adherent. Factors that are significantly associated with being on HAART include lowered stress score and currently working ($p<0.05$). Women who have high difficulty with HAART have higher anxiety score ($p<0.05$). Women who don't believe in the efficacy of HAART ($p< 0,005$) are assessed with higher hysteria score ($p<0.05$). The pregnancy is planned by 24 women and unexpected for the others 20. Emotions related to the diagnosis of pregnacy are positive (happiness and serenity) for 30 subjects. The negative emotions are significantly associated with unexpected and

unwanted pregnancy, ill health, high psychological impact of HIV, higher anxiety and depression score ($p<0.05$). Feeling much worried about pregnancy, particularly for the risk of transmission (n=15) or the birth of a sick child (n=10), is significantly associated with high psychological impact of HIV and higher anxiety score ($p<0.05$). However, a trend of worry reduction about pregnancy is shown in women supported by a psychologist.
Conclusions: These data suggest a general weakness and poor awareness about pregnancy in HIV+ women. The high number of non-adherent women and unexpected maternities imply inadequate knowledge and psychological preparation at the event. Adherence appeared inadequate in bad psychological condition and without social support. The completion of statistical analysis is ongoing.
Contact Alt Email: s.casari@infettivibrescia.it

3.4 Societal Reactions on HIV/AIDS and Public Health Policies

LBPS3.4/1
Survey on social acceptance of people living with HIV / AIDS (PLWHA) in their living and work
Consolate Nduwarugira [1], Jean Nduwimana [2], Diane Mpinganzima [3]
National Aids Council, Burundi [1 2], ACORD-Burundi [3]

Background: Despite the efforts initiated by the Government, civil society associations and human rights and PLWHA, the phenomena of stigma and discrimination persist in Burundi, thus reducing the vulnerability and initiatives effective response against infection HIV / AIDS. Stigma and discrimination are observable at different levels: the family, professional, community and at the level of social services.

Thus, a study on the social acceptance of people living with HIV / AIDS in their life and work was conducted with the aim to make a report on violations of rights of persons infected and affected by HIV / AIDS in their life and work: to conduct a study on the phenomenon of stigma and discrimination in the workplace, to evaluate the application of ILO guidelines on the fight against AIDS in the workplace and to propose measures to fighting against stigma and discrimination at different levels:
Method : Research, personal interviews and focus groups were used as data collection techniques. In total, 1037 people (PLWHA, administrators, religious leaders, employers and other stakeholders In the fight against AIDS) attended the study.

Results: The severity of the disease linked to his image and the social taboo nature of sexuality in Burundi make infected and affected persons stigmatized and discriminated. Here is a summary of the results of this study:

1) Considerations of PLWHA in the middle of life: attitudes of stigma and discrimination are found mainly in family and community: (i) Good consideration (80% male and 69% in women), (ii) Poor consideration (20% male and 31% among women).

2) Considerations of PLWHA in the workplace: refusal to give responsibility to a PLWHA because of incapacity (20.6%), lack the face of care (7.9%);
unjustified mutation (3.2%), refusal of credit or downstream (3.2%).

3) Aspects of Gender: Women are more discriminated against than men: 77% among women, 11% for men and discriminated against in the same position in 12% of cases.

Conclusion: We need an open and concrete actions, focusing on human rights for PLWHA and their families benefit from access to care and support, and live free of fear, violence or discrimination. Thus, the impact of HIV and AIDS on individuals and society are being undermined

The actors of civil society and PLWHA have a major role to play to eradicate the phenomena of stigma and discrimination
Contact Phone: +257 79 921233

LBPS3.4/2
The Governance of HIV/AIDS Prevention in Russia
Aadne Aasland, Peris Sean Jones
The Norwegian Institute for Urban and Regional Research (NIBR), Norway

Background: The Russian Federation was quite recently described as amongst the worst cases of government response to HIV/AIDS. However, a noticable shift took place from 2005 to 2006 with funding to fight the epidemic increasing 20-fold. President Putin declared the fight against HIV/AIDS a national priority, and a high-level government commission on HIV/AIDS was established. Still, the number of new HIV infections has continued to increase.

This study is the first phase of a Norwegian-Russian project examining the extent to which, and how, HIV/AIDS prevention is perceived and treated as a public health issue, requiring a broad, multi-sectoral response. An integral issue is to examine the role of trust and social capital amongst relevant actors that may explain whether policy outcomes are successful or not. The project analyses actor-oriented interplay between four categories of actors: i) authorities (federal, district and municipal), ii) professional groups, iii) risk groups, and iv) the general public. Through case studies in five municipalities (located in three federal subjects) the project analyses which conditions that need to be present to ensure coherence between prevention strategies at the national level, and the way these are implemented and perceived at lower levels.

Objective: To identify the extent to which health policy alliances and networks are critical for an improvement in the governance of HIV/AIDS prevention at the regional level in Russia.

Methods: Semi-structured interviews with representatives of federal authorities (4), civil society organisations (3) and international/multilateral organisations (4) working on HIV/AIDS prevention at federal level in Russia were conducted in May 2008.

Results: Based on input from the informants at federal level two major challenges were identified:
- The scope and nature of decentralisation of the health sector implies large variations in performance of regional actors in prevention policy.
- Efficient prevention requires alliances and building relationships between the heads of the district AIDS centres, civil society organizations and local political elites.

Furthermore, these dynamics are also underpinned by additional contextual factors involving stigma and negative attitudes towards vulnerable groups (injecting drug users, commercial sex workers, men who have sex with men) among responsible policy-makers, professional groups and the population at large. As it is perhaps less controversial to fund treatment than harm reduction initiatives, the large bulk of funding continues to be allocated to treatment rather than prevention measures.

Conclusion: The vast variation in prevention policy and coordination at the local level is correlated with variations in formation of networks and alliances between key actors, prevailing social attitudes and how these contribute to policy preferences (namely treatment displacing prevention). The next phase of the project will deal with uncovering the mechanisms at local level that are decisive for forming well-functioning prevention policy.

Contact Alt Email: aadne.aasland@gmail.com
Contact Phone: +47 95 93 72 70

Scientific Abstracts - Printed Abstracts Only

www.aidsvilnius2009.com

1.1 New ARV therapy strategies

PR1.1/1

NUMBER AND FUNCTION OF NATURAL KILLER CELLS IS WELL PRESERVED IN A SYMPTOMATIC HUMAN IMMUNO-DEFICIENCY VIRUS TYPE -1 BUT ITS ACTIVITY DECREASES WHEN CD4+ T-CELL COUNTS FALL.

Ezekiel Mecha[1], Charles Omwandho[2], Joseph Mukuria[3], Carolynne Ayienda[4]
University of Nairobi, Department of Paediatrics and Child Health Kenya[1], University of Nairobi, Department of Biochemistry Kenya[2 3], Kenya Medical Research Institute Kenya[4]

Introduction. Natural killer (NK) cells are potent effectors of natural immunity and they constitute the initial immune defense. NK cells are able to lyse tumor and virus-infected cells without prior activation. They can produce higher levels of cytokines and chemokines that may enhance the adaptive immune response to pathogenic infection and therefore play an important role in controlling infections. Rapid progression to AIDS has been associated with reduced NK cell numbers. NK cells from HIV-1 infected subjects secrets chemokines with the ability to suppress autologous HIV replication in vitro and high gamma interferon release was found to be associated with NK cell number in interleukin-2 therapy during AIDS. We sought to determine whether NK cell immune responses can be used as markers for HIV-1 infection and clinical progression to AIDS.

Materials and Methods. It was a cross-section study and a total 90 antiretroviral naive HIV-1 infected individuals and 30 HIV negative were recruited in the study.The HIV positive were classified into three categories of 30 patients according to the latest CD4+ T-cell counts: high (>500 cells/ul), medium (200-500cells/ul) and low (<200 cells/ul) . NK cell count and NK phenotyping.

CD4+, CD8+ and NK cell numbers and percentage were assessed by use of four-colour multiTEST CD3/CD8/CD45/CD4 and CD3/CD16+CD56/CD45/CD19, acquired in flocytometry, and analyzed with multiSET software. NK phenotyping was done with PBMCs using flourochrome-conjugated monoclonal antibodies .Analysis was performed on a FACS callibur cytometer using cell quest-Pro-software.CD3-CD56dim and CD3-CD56Bright NK sub-populations were distinguished by mean fluorescence channel that detected CD3- CD56dimand CD3-CD56Bright.Statistical analysis was done using graph pad prism and $p<0.05$ was used as the significance level. Function and number of NK cells were related to CD4+T and CD8+ T-cell counts using the spearman rank correlation test.

Results: Levels of NK cytoxicity, percentage and absolute cell counts were significantly higher in subjects with high CD4+-T-cell counts and were similar to that of healthy controls. NK cell count was positively correlated to CD4+-T-cell count and CD4/CD8 ratio and inversely related to CD8+ T-cell numbers and percentage. Levels of NK cell counts and percentages were significantly dropped at low CD4+-T-cell counts.(<200 cells / ml).

Discussion: NK cell count was high in HIV-1 subjects when the CD4+ -T-cell counts were greater than 500 cell/ul. The NK activity was found to decrease markedly as the CD4+ -T-cell counts fell, suggesting that NK cell functions are affected by HIV progression. However our data highlight that people with HIV-1 who have normal CD4+ counts appear to have high levels of NK cell count

monyonka@yahoo.com
Contact Phone: 254 721 483 126

PR1.1/2

Use Of Mobile Phones To Improve On Adherence And Clinical Outcome Of Patients On ART

Kenneth Muko[1], Leslie Chingang[2], McDonald Yonwong[3]
Catholic Relief Service Cameroon[1 2], St. Martin De Porres Hospital ,Njinikom Cameroon[3]

Background: Adherence to antiretroviral therapy (ART) plays a vital role in improving treatment outcomes and ensuring quality of life and survival among people living with HIV/AIDS. The use of telephones as an adherence support tool has been recently shown to improve adherence in the United States. We report on an intervention using mobile phones to improve on adherence to ART in a semi urban area in Cameroon.

Design and Methods: 122 treatment-naïve patients were randomly assigned into two groups; those receiving standard care (SC) and those on standard care in addition to a forth-nightly telephone call (SC+). A total of 98 completed the study after six months between December 2007 and September 2008. Eligible patients were of age >18 years, HIV positive and treatment naïve. Exclusion criteria included clients who were mentality challenged, lacked access to mobile phones, incapable of self administering ART, and living in areas with no access to phone network . Primary outcome measures -self reported adherence (validated using an adherence score) and change in CD4 -were collected at baseline for both measures, monthly for self reported adherence and every six months for changes in CD4. A focus group discussion (FGD) was also carried out.

Results: Majority 58(59%) of respondents were female ,mean age of respondents was 36 years. The SC+ group showed improved treatment outcome ($p< 0.5$) a week after the study ended and significant differences in adherence ($p< 0.05$).Fewer (14%) of patients on SC+ group were lost to follow-up as compared to 28% of the SC group. Participants revealed that phone calls from their health care providers served as a motive for adhering to treatment because it showed interest and support from healthcare workers.

Conclusions: Use of clinician initiated phone calls not only improves on adherence and clinical outcomes of patients on ART but also reduces patient loss to follow-up as well.

ngwamuko@yahoo.com
Contact Phone: 23722203039

PR1.1/3

Treatment of HIV Infection in Injection Drug Users: Directly Observed Therapy and Self Administered Therapy

Harout Tossonian[1], Jesse Raffa[2], Jason Grebely[3], Stanley DeVlaming[4], Brian Conway[5],
University of British Columbia Canada[1 5], University of Waterloo Canada[2], National Centre in HIV Epidemiology and Clinical Research Australia[3], Pender Community Health Centre, Vancouver Coastal Health Canada[4]

Background: To evaluate the treatment of HIV infection in injection drug users (IDUs) within the context of an established directly observed therapy (DOT) program.

Methods: In a longitudinal prospective and retrospective cohort study we identified HIV-infected IDUs who received

HAART either as DOT or self-administered therapy (SAT) from 1996 to 2007. Immunologic and virologic responses as well as treatment retention were measured at 6, 12 and 24 months. Virologic suppression was defined as an HIV plasma viral load <50 copies/mL. Factors associated with virologic suppression and treatment retention were assessed by multiple logistic regression and Cox Proportional Hazard models, respectively. Causes and rates of treatment discontinuation were also assessed.
Results: Overall, 171 IDUs initiated HAART. A total of 477 regimens were used; 252 were DOT and 225 SAT. At months 6, 12 and 24, rates of virologic suppression were 39%, 36% and 23% in DOT-based as compared to 16%, 11% and 7% in SAT-based regimens, while treatment retention rates were 73%, 54% and 30% in DOT-based as compared to 58%, 36% and 15% in SAT-based regimens ($p<0.001$ for all comparisons). Immunologic responses were improved, but not sustained with SAT. Treatment discontinuations were more common with SAT. Factors associated with virologic suppression included the use of DOT, older age, later initiation of HAART, modifications during therapy, earlier lines of therapy, being hepatitis C virus negative and initiating regimens with a suppressed viral load or a CD4 cell count >200 cells/mm3. Similar factors were associated with treatment retention.
Conclusions: By retaining patients in care for longer periods of time, DOT can be an important tool in improving treatment responses in HIV-infected IDUs.
htossonian@gmail.com
Contact Phone: +1-604-240-8513

PR1.3/1
Prevalence of Hepatitis B Virus infection in female patients with sexually transmitted HIV infection in Lima, Peru.
Jaime A. Collins, Hogar San Camilo, Lima, Peru

Background: Few reports have described the prevalence of Hepatitis B Virus (HBV) infection in persons with sexually transmitted HIV infection. We aimed to determine the prevalence of HBV infection in female patients with HIV acquired by sexual route and taken care in a single centre that attend HIV patients from poor areas of Lima, Peru.
Methods: Cross-sectional prospective study. Within March 2006 sera from HIV female patients were collected and tested for hepatitis B core antibody (anti-HBc) by ELISA. When anti-HBc was detected serum was tested for surface antigen (HBsAg). Past HBV infection was defined when anti-HBc and HBsAg were positive and negative respectively. Chronic HBV infection was defined when both tests were positive. The prevalence of HBV infection was stratified according to the type of sexual intercourse and number of sexual partners.
Results: One hundred forty female patients were evaluated (mean age: 28 years, SD: 6). Tests for anti-HBc was detected in 6% (9/140). All patients with these results had tests negative for HBsAg. The prevalence of past HBV infection was 6% (9/140). There was not any case of chronic HBV infection. There was no association between HBV infection with type of sexual intercourse (oral or anal vs only vaginal, p=0,504) and number of sexual partners (1-2 vs >2, p=0,736).
Conclusions: We found a moderate prevalence of past HBV infection in female patients with sexually transmitted HIV infection in Lima, Peru. HBV/HIV co-infection was not associated with type of sexual intercourse and number of sexual partners in this population.
jcollinslp@yahoo.esContact Phone: +0511 9987 63 177

2.1 Dynamics of the HIV-Epidemic

PR2.1/1
COMMERCIAL MALE SEX WORKERS AND CONDOM USE TO PREVENT HIV/AIDS IN KATHMANDU, NEPAL.
Santosh Gurung[1], Oranut Pacheun[2], Arpaporn Powwattana[3]
Faculty of Public Health,Mahidol University Nepal[1] [2], Mahidol University Thailand[3]

OBJECTIVES: A descriptive cross-sectional study was undertaken to estimate the proportion and describe the factors associated with condom use with the clients amongst the commercial male sex workers in Katmandu, Nepal.

METHODS: Data from 131 commercial male sex workers aged 19-54 years living in Kathmandu, Nepal were collected using convenient sampling method. Both descriptive and inferential statistics were used - chi square test was used to determine the association.

RESULTS: The proportion of condom use with the clients was 69.5%.The mean age of the respondents was 26 years and 75.6% were 30 years and below. Twenty-nine percent engaged in alcohol drinking prior to engaging in sexual activities and the percentage of condom use was lower compared to the non-drinkers. Amongst the respondents 91.5% had good knowledge about HIV and modes of transmission, prevention and treatment was 14.6% and knowledge about proper technique of condom use was 64.1%. Positive attitude towards HIV/AIDS was 80.9% and towards condom use was 59.5%.Condom use was found to be significantly associated with alcohol drinking, attitude towards condom use, easy and free access to condom supply and support from the clients and peers.
($p < 0.05$)

CONCLUSION: Problems facing the commercial male sex workers and condom use should be addressed comprehensively in order to formulate appropriate programmes for proper health care to combat HIV/AIDS.
gurungs@searo.who.int
Contact Phone: +977-9858020245

PR2.1/2
THE IMPACT OF HIV/AIDS EPIDEMIC ON FERTILITY LEVELS IN THE CENTRAL REGION OF UGANDA.
Maxi Mbidde Ssenyondo[1], Kayiira Fred Kakooza[2], Ssembuse Patrick[3], Namaganda Cissy Irene[4]
Rural – Urban Change Initiative [1], Green World Uganda[2] [4], Urban Youth revival Association Uganda[3]

Objective: Investigate the impact of HIV/AIDS on the fertility levels in the central region of Uganda.
Methodology: A survey was conducted among 2445 randomly selected women aged 15-49 years in the central region of Uganda. Equal numbers of women were selected representing Kampala, Luwero, Mukono, Mubende and Mpigi. However, Rakai and Masaka Districts were over sampled in order to produce estimates for these segments of the population because they were the most hard heat by the HIV/AIDS epidemic. An in depth analysis of the impact of HIV/AIDS on fertility levels of was done at the bivariate level of analysis using a person chi-square statistics to test the hypothesized relationship. A logistic regression model in the multivariate approach was used to Investigate the nature of the association between the predictor variables

and fertility levels.

Results: The impact of HIV/AIDS on fertility levels was analyzed by medium age at first sexual intercourse, breast feeding abstinence, polygamy, fertility preference age at first marriage, contraceptive use, abortion and pregnancy rates all of which appear to be statistically significant. The result of the study observed that the median age at first sexual intercourse had increased from 15 years to 16.6 years (p=0.002) due to the fear of HIV/AIDS. The medium age at first marriage also increased from 17.3 to 18.1 years (p=0.001) and the reluctant among respondents to enter into marital unions was for fear of HIV infection. Results also showed that HIV infected women who had given one birth were more likely to use modern contraceptives than their HIV negative counterparts. HIV/AIDS infected women were found to have less pregnancy rates compared to HIV/ AIDS free women, which had a direct effect on fertility.
The perseverance of polygamous unions in the central region was show to have relatively reduced to 15.8% men decided to stick to one wife which had a positive effect on monogamy leading to a paradoxical increase in fertility. Breastfeeding is an avenue of mother – child HIV transmission (vertical transmission) hence results observed that HIV infected mothers tried to avoid breastfeeding which in effect reduced the duration of infecundabilty amenorrhea leading to sooner pregnancies and thus increase fertility. The study further showed that the age adjusted odds ratio of spontaneous ambitions in HIV infected versus HIV un infected women was 1.5 time higher and significant (p=0.048). in light of high HIV/ AIDS related infant modality results showed that HIV infected women were more likely to produce more children so as to replace the dead siblings thus maintain the preferred minimum surviving.

Conclusion: HIV /AIDS is one of the partnent contributors to the several proximate determinants of the fertility. Therefore, voluntary HIV testing and counseling should be widely encouraged in all treatment centers and formal institution so as to register ample data for reliable and representative sero status surveys in relation to fertility transition. HIV/AIDS, reproductive health and family planning programmes should be cohesively synronized in performance so as to avoid resource competition and compromise performance of any of the programmes and hence provide a good measure of each of these phenomenon effects on fertility.
ssenyondosj@excite.com
Contact Phone: +256-712199677

2.2 Molecular Epidemiology

PR2.2/1
SDF1-3
Omkar Chaudhary[1], Kavitha Rajsekar[2], Imran Ahmed[3], Romsha Verma[4], Manju Bala[5], Rama Bhasin[6], Kalpana Luthra[7]
All India Institute of Medical Sciences India[1 2 3 4 6 7], Regional STD Teaching and Training & Research Center, VMMC & Safdarjung Hospital, New Delhi 110029 India, India[5]

Background: SDF1-3'A is a single nucleotide polymorphism (SNP) at position 801 relative to the start codon in the 3' untranslated region involving a G>A transition in SDF-1. The genotype having SDF1-3'A in the homozygous state has been suggested to confer a significant degree of protection against AIDS development in HIV-1 infected individuals and in exposed, but uninfected, high risk individuals.

Methods: A total of 100 healthy individuals, 150 high-risk sexually transmitted disease (STD) patients seronegative for HIV-1 and 200 HIV-1 seropositive patients were included in the study. SDF-1 genotyping was performed from genomic DNA extracted from blood. The amplified product was subjected to Restriction Fragment Length Polymorphism (RFLP) using restriction enzyme MspI. Alleles were distinguished on 3% gel. Alleles were confirmed by PCR product cloning and sequencing. Chi square test was used for statistic analysis.

Results: The genotypic frequencies of SDF-1 in the homozygous condition in HIV-1 seronegative individuals, high-risk STD patients, and HIV-1 seropositive patients were 4%, 18% and 7%, a significantly higher frequency of SDF1-3'A homozygous genotype in high risk subjects as compared to HIV patients ($p = 0.001$), suggesting that homozygosity for SDF1-3'A may contribute to the protection against HIV. The allelic frequencies for the variant SDF1-3'A allele were 41 (20.5%) in healthy HIV-1 seronegative individuals, 88 (29.3%) in STD patients and 17 (8.5%) in HIV-1 positive patients, respectively. Chi square analysis revealed significantly higher allelic frequency of SDF1-3'A in high risk HIV seronegative subjects as compared to healthy HIV-1 seronegative individuals ($p = 0.027$) and HIV positive patients ($p < 0.001$).

Conclusions: A significant increase in the genotype SDF1-3'A/SDF1-3'A in the high risk individuals (STD patients) as compared to both the healthy seronegative and HIV-1 positive patients, suggesting a possible protective role of SDF1-3'A in the homozygous state against HIV infection.
omkar1519@gmail.com
Contact Phone: +91-9868491952

2.4 Diagnostics & Monitoring Tools aimed at hard-to-reach populations

PR2.4/1
Dissidence and Dissemination: Engaging the Rebel and Insurgent Groups in HIV Advocacy
Marlon Lacsamana[1], Mark Anthony Cayanan[2]
Institute for Social Studies and Action Philippines[1], Ateneo de Manila University Philippines[2]

On the 1st of December 2008, the Department of Health of the Philippines, through the National Epidemiology Center, issued a statement that the current HIV trend has reached epidemic proportions among the male-having-sex-with-male (MSM) community. If the current rate of infection continues, around 12 to 15,000 members of the community will have contracted the virus within five years. This scenario translates to the fact that the national government is faced with a challenge it does not seem adequately prepared for; thus, the need to enlist and continue to elicit the support of some sectors in the civil society is of imminent importance. Moreover, even previously untapped quarters of society need to be engaged to deal with the epidemic.

This paper intends to examine the possibility and need to involve the rebel and insurgent groups in the Philippines in

HIV advocacy. In particular, the National Democratic Front of the Philippines (NDFP)—a multi-sectoral alliance of different revolutionary mass organizations led by the Communist Party of the Philippines—as a belligerent government will be used to exemplify how these groups are highly essential to the promotion of HIV awareness. Part of the NDFP is the Makabayang Samahan Pangkalusugan or MSP (Patriotic Health Alliance), whose members are from the health sector and whose primary program is to implement comprehensive and progressive health services for all Filipinos. Along with the inclusion of this organization, the NDFP also seems poised and ideal to aid in the promotion of HIV awareness because it is one of the first institutions in the Philippines to recognize the revolutionary ideals of the lesbians, gays, bisexuals and transgenders (LGBTs). In 1998, the NDFP recognized and performed equal or same-sex marriages for its members, and the alliance has been using this to organize and recruit LGBTs to its ranks. Furthermore, the formation of the NDFP organizing committee for gay men (NOCGM) in 2005 paved the way for discussions probing issues pertinent to gay men's sexuality, including HIV & AIDS.

These considerations, as well as the capacity of the movement to access and disseminate information to the grassroots levels, may translate to the efficacy of the NDFP as an important force in HIV advocacy. That other former insurgent groups in other countries such as East Timor and Nepal have also initiated HIV awareness drives for their constituents also bolsters the fact that the NDFP may need and has to the capacity to assume this responsibility in place of insufficient governmental efforts.

mtlacsamana@gmail.com
Contact Phone: (+63) 916 828 1564

PR2.4/2

HIV and hepatitis C prevalence and testing rate among injecting drug users in Belgrade, Serbia

Danijela Simic[1], Verica Ilic-Vlatkovic[2], Tanja Knezevic[3], Zorana Gledovic[4], Sonja Mitov-Scekic[5], Neda Stojanovic[6], Sanda Pesic[7]
Institute of Public Health of Serbia "Dr Milan Jovanovic Batut" Serbia[1 2 3 5], Institute of Epidemiology, School of Medicine, University of Belgrade Serbia[4], Institute of Public Health of Serbia[6 7]

Background: Republic of Serbia is a country with low level HIV epidemic with estimated HIV prevalence less than 0,1%. Since 1985 till the end of 2007, 2200 persons infected with HIV were officially registered in Serbia and more than 70% of them lived in Belgrade. Although, out of all notified HIV cases 44% were injecting drug users (IDU) we registered a sharp decreasing trend of proportion of IDU among newly diagnosed HIV cases in the last decade (from 70% in 1991 to 9% in 2006 and 12% in 2007). In the period 2006-2007 the notified HIV prevalence among IDU was less than 1%, while hepatitis C prevalence was around 40% according to the data from voluntary counseling and testing (VCT) services in Belgrade. Main objective of survey was to estimate the baseline seroprevalence of HIV and hepatitis C infection and to estimate the extent of testing in the population of IDU both sexes in Belgrade. The survey among IDU was one of the seven baseline surveys realized by Institute for Public Health of Serbia within the Ministry of Health of Serbia Project

simars@yubc.net
Contact Phone: +381-63-85-63-111

2.5 Expanded HIV screening

PR2.5/1

KNOWLEDGE AND ACCEPTABILITY OF VOLUNTARY COUNSELLING AND TESTING (VCT) FOR HIV/AIDS BY RURAL FARMERS IN BENUE STATE, NIGERIA.

Victor Ugbem Oboh
University of Agriculture, Makurdi Nigeria

The paper examined the knowledge and acceptability of Voluntary Counseling and Testing (VCT) for HIV/AIDS among rural farmers in Benue State, Nigeria. A multi-stage sampling technique was used to select 105 respondents. Data were collected by means of semi-structured questionnaires and analyzed using descriptive statistics and logistic regression model. Results generally showed high awareness level about knowledge, modes of transmission and methods of prevention of HIV/AIDS among respondents. Knowledge about VCT services was also high (94.3%) but only 76.2% were willing to accept free VCT services. Major reasons given by the unwilling respondents include, fear of stigmatization (56%), and psychological trauma (32%). Factors that significantly ($P \leq 0.05$) influenced farmers' decision to accept VCT services include gender, education, membership of community organization and counseling by agricultural extension agents. It is recommended that more enlightenment campaigns and education should be mounted by governmental and non-governmental organizations to reduce stigmatization and fear of psychological trauma thereby increasing acceptability of VCT services among the farmers.

voboh@cgiar.org, Tel +2348062116918

PR2.5/2

RIGHT TO PURE WATER & PROPER SANITATION TO PEOPLE LIIVING WITH HIV/AIDS IN SOUTH ASIA (A Study on HIV/AIDS Patients of Uttar Pradesh State of India)

ROHIT MISRA
UNIVERSITY OF LUCKNOW,INDIA

The impact of HIV/AIDS is systemic and affects development at all levels: household, community, institutional and national. It is now widely acknowledged that HIV/AIDS is not simply a health issue, but a development problem that affects the whole fabric and future of society, because the HIV/AIDS epidemic has so many different faces and dimensions, the relationship between HIV/AIDS and water, and hygiene is rather complex Water and sanitation is key to ensuring that one is healthy. Opportunistic infections like diarrhoea is also caused by lack of clean water and proper sanitation. Ensuring that people living with HIV/AIDS have access to clean water and sanitation reduces the risk of developing diarrhoea and cholera. Many people living with HIV/AIDS have died because of these diseases. Provision of clean water and sanitation becomes one of the strategies to manage opportunistic infections. Present study establishes a relationship among pure water, sanitation and life risk of HIV/AIDS patients. In India, Uttar Pradesh is the state of villages, has a huge number of people but low number of pure water resources and proper sanitation places. It also has increasing number of HIV positive people and notable fact is that the most of new cases are coming from rural areas. This is an alarming situation for us because in rural India has lack of proper pure water supply and sanitation. Present study was done in September 2008 on 500 HIV positive people of Uttar Pradesh in India. Study shows that

the HIV/AIDS patients are on high risk of death because their immune system has been destruct by HIV and if they get water born diseases, like Diarrhoea, Lack of appetite, Nausea and vomiting, Jaundice, Sore mouth or when eating is painful, other digestive problems, Changes in the taste of foods and influenza Fever etc. than they would easily trapped by death. Their life span become shorter and might be we cannot save their lives, which we want to do. Therefore, this is an alarming situation for the Governments of developing countries that they provide fresh water and proper sanitation for those who are suffering from HIV/ AIDS.

rohitmisralko@gmail.com
Contact Phone: +91-9415301611, +91-522-263551

PR2.5/3

Follow-up after a rapid HIV test in a community setting: building pathways for reactive and non-reactive results

Dr Greg Ussher[1], Andrew Evans[2], Scott Lupasko[3], Sara McNamara[4], Dr Stephen Kegg[5],
The Metro Centre United Kingdom[1 2 3 4], Queen Elizabeth Hospital United Kingdom, United Kingdom[5]

Research indicates that there is a complex and confounding relationship between HIV testing and risk behaviours amongst men who have sex with men. Hart G.J et.al report that the odds of UAI are 40% higher for those men who have been tested for HIV. Mackellar et.al. report that many young MSM soon acquire HIV after repeated use of HIV counseling and testing services. Tyrer et.al. report that progression to AIDS is significantly faster in those men with a short HIV test interval (time between antibody-negative and antibody-positive test.
Such research has highlighted for the Metro Centre that significant opportunities for support and intervention are provided when MSM present at community rapid HIV testing Clinics. Significantly, these opportunities for support and intervention are not just for those men who receive a reactive result, but for men who receive a non-reactive result, whether repeat or first time testers.
The Metro Centre conducts a number of HIV/STI testing clinics for MSM using both nursing and volunteer testers, and has seized on these opportunities to design a number of innovative post-test interventions to ensure that ongoing risk behaviours are addressed.

wazgreg@hotmail.com
Contact Phone: +11 44 20 8305 5000

3.1 Drug Use, Sexuality and HIV-protection/risk behaviour

PR3.1/1

In Sex We Trust

MIkael Jonsson
The Swedish Federation for Lesbian, Gay, Bisexual and Transgender Rights (RFSL) Sweden

The purpose of this study was to explore the emotional needs behind decisions around safer sex among men of have sex with men, MSM. Behind shallow explanations of unprotected anal intercourse like “I was drunk”, “We didn’t have any condom”, and “He looked healthy” lies deeper explanations.
The study gives us a deeper understanding of what hinders, but above all what motivates, MSM to use a condom during anal intercourse. This gives a good opportunity to have a positive approach to advocate condom use, e g in motivational interview, group-interventions and campaigns.
The study used the patented ZMET method, the Zaltman Metaphor Elictation Technique, a qualitative interview- and analysis method developed by prof. Gerald Zaltman at Harvard Business School in Boston, USA.
The method reaches both rational and emotional thinking, but feelings and emotions are more easily explored compared to more traditional methods of research. Instead ZMET extracts the deeper needs and incentives that affect behaviours.

The outcome of our study is that MSM wants sex to be carefree, trusting and a little forbidden. The condom is used to relieve anxiety, follow your own principles, show respect and consideration and to increase the freedom to have sex.

MSM refrain from using a condom because it prevents trust, create rules, damages the ideal of sex, takes away the feeling of intimacy and creates an interruption.

The motivators of condom use will vary in strength for each individual, depending on social contexts, relations with partners and the situation as such.

mikael.jonsson@rfsl.se
Contact Phone: +46736603262

PR3.1/2

Prevalence and correlates of having participated in an HIV prevention program among MSM in Chennai, India

BEENA THOMAS[1], MATTHEW MIMIAGA[2], KENNETH MAYER[3], SUNIL MENON[4], SOUMYA SWAMINATHAN[5], Murugesan Periyasamy[6], Steven A. Safren[7]
TUBERCULOSIS RESEARCH CENTRE (ICMR), DIVISION OF HIV/AIDS India[1 5 6], HARVARD MEDICAL SCHOOL/MASSACHUSETTS GENERAL HOSPITAL United States[2 7], THE FENWAY INSTITUTE, FENWAY COMMUNITY HEALTH United States[3], SAHODARAN (NGO) India[4]

Background: Men who have sex with men (MSM) in India are a core risk group for HIV. India has the greatest number of HIV infections in Asia and the third highest total number of infected persons globally. Participation in HIV prevention programs among MSM has been associated with decreased sexual risk taking behaviors in many settings. However, no studies to date have explored participation in HIV prevention programs and subsequent HIV risk and other correlates among MSM in India.

Methods: 210 MSM in Chennai completed an interviewer-administered assessment, including questions about ever having participated in an HIV prevention program, sexual risk taking, demographics, MSM identities, and other psychosocial variables. Bivariate and multivariable logistic regression procedures were used to examine behavioral and demographic correlates with participating in an HIV prevention program ever.

Results: More that a quarter (26%) of the sample reported ever participating in an HIV prevention program. Participants who reported engaging in unprotected anal sex (UAS) (OR = 0.28; p = 0.01) in the three months prior to study enrollment were less likely to have participated in an HIV prevention program ever. MSM who were older (OR = 1.04; p = 0.05), Kothis (feminine acting/appearing and predominantly receptive partners) compared to Panthis

(masculine appearing, predominantly insertive partners) (OR = 5.52, p = 0.0004), those with higher educational attainment (OR = 1.48, p = 0.01), being "out" about having sex with other men (OR = 4.03, p = 0.0001), and MSM who reported ever having been paid in exchange for sex (OR = 2.92, p = 0.001) were more likely to have ever reported participating in an HIV prevention program. In a multivariable model, MSM reporting UAS in the prior three months were less likely to have ever participated in an HIV prevention program (OR = 0.34, p = 0.04). MSM who were older (OR = 1.05, p = 0.05), those with higher educational attainment (OR = 1.89, p = 0.001), and MSM who were "out" about having sex with other men (OR = 2.87, p = 0.03) were more likely to have ever reported participating in an HIV prevention program.

Conclusions: Findings suggest that exposure to HIV prevention programs may be protective against engaging in UAS for some MSM in India. It is also important for programs to understand and reach out to the less educated, younger, and the Panthis who may not access and benefit from HIV prevention programs. Understanding other predictors of participating in an HIV prevention program in the past is helpful for identifying Indian MSM who might have had no exposure to HIV prevention information and skills, hence allowing researchers to target individuals in greatest need.

beenathomas@trcchennai.in
Contact Phone: 91 44 28369513

PR3.1/3

Domestic violence as an HIV-related risk factor among Puerto Rican women

Sarah Malav[1], Glorivee Rosario-P[2]
University of Puerto Rico - Cayey [1 2]

Domestic violence is manifested through a pattern of abusive behaviors. Puerto Rico reports more than 17,000 domestic violence cases annually and these are especially seen in women population Sexual negotiation by women can intensify violence toward them and increase their risk for unprotected intercourse and physical lesions, which make them vulnerable to HIV infection. Based in the total AIDS confirmed cases in Puerto Rican women, 61% were infected by heterosexual contact. This study explored attitudes toward sexual negotiation between women and their partners regarding HIV prevention. Sexual negotiation refers to the possibility to select one or more sexual practices, communicating, negotiating and agreeing with a couple, without any limitation or obstacle for the person to do what he or she wants to do or reject what dislike before, during or after a sexual relation. It also identified sexual practices and high-risk behaviors among women and their partners. The sample consisted of 90 Puerto Rican adult women (at least 21 years old) that were in a heterosexual relationship. The procedure consisted in the implementation of screening and demographic data questionnaires and interviews. Demographic data questionnaires used for data collection, included questions regarding participant's age, area of residence, educational level, among other variables. Sixty-three percent of women considered that they had knowledge about HIV/AIDS. Seventy percent of these women did not perceive any risk of HIV infection in their relations, whereas 30% reported a risk relation. Forty-four percent were domestic violence victims from previous partners, whereas only 7% in present relationship. However, 21% had been forced to sustain sexual intercourse without consent at least once. Only 9% used protection during the sexual relation, 37% sometimes used protection, whereas 54% did not use any. Major reason why participants did not use protection were that the use of condoms decrease their sexual pleasure (44%) and 21% did not used condom because they loved their partners. The perception of not being at HIV-risk was related to a monogamous relationship (54%); however, 31% of women said that they were monogamous but not sure if their partners were. The violence towards the women is sometimes not perceived like so by the own women if this is not exerted of physical way and with blows. The women who do not perceive themselves in an inequity relation have less possibility of negotiating ways of prevention of the HIV with their partners.

glorivee@hotmail.com
Telephone: 787-717-9092

PR3.1/4

High-risk sexual practices among Puerto Rican heterosexual women and their knowledge about HIV status

Sarah Malav[1], Glorivee Rosario-P[2]
University of Puerto Rico – Cayey, Puerto Rico[1 2]

The perception of risk among sexually active women will be mediated by their acquired knowledge about the virus, identification of factors associated with HIV-related sexual risk, as of the influence of cultural, gender-specific and psychosocial notions. HIV continues to affect Puerto Rican women disproportionately because based in the total AIDS confirmed cases in this group, 61% were infected by heterosexual contact. This study explored attitudes toward sexual negotiation between women and their partners regarding HIV prevention. Sexual negotiation refers to the possibility to select one or more sexual practices, communicating, negotiating and agreeing with a couple, without any limitation or obstacle for the person to do what he or she wants to do or reject what dislike before, during or after a sexual relation. It also identified sexual practices and high-risk behaviors among women and their partners. The sample consisted of 90 Puerto Rican adult women (at least 21 years old) that were in a heterosexual relationship. The procedure consisted of the implementation of screening and demographic data questionnaires and interviews. Demographic data questionnaires included questions regarding participant's age, area of residence, religion, educational level, among other variables. Fifty-one percent of women had sexual relationship with more than two people in the last five years. Sixty-three percent of these women considered that they had knowledge about HIV/AIDS. The percentage of women who had been tested for HIV was 82%, where 95% received negative results. Some reasons why these women had been tested for HIV were curiosity (42.2%), medical recommendation (8.9%) and pregnancy (8.9%). Women admitted to having sexual intercourse with their partner under the influence of alcohol (67%) or narcotic drugs (22%). Seventy percent of these women did not perceive any risk of HIV infection in their relations, whereas 30% reported a risk relation. Only 9% used protection during the sexual relation, 37% used protection sometimes, whereas 54% did not use any. Major reason why participants did not use protection were that the use of condoms decrease their sexual pleasure (44%) and 21% did not used condom because they loved their partners. The perception of not being at HIV-risk was related to a monogamous relationship (54%). Women incur HIV high risk conducts even though the majority refers to

have knowledge of the transmission of the virus. Women didn't perceive any HIV risk because they had a stable relation with their partners. Moreover, maintaining sexual relations under the alcohol effects and drugs may diminish the capacity to negotiate methods of protection

glorivee@hotmail.com
Telephone: 787-717-9092

PR3.1/5

HIV knowledge and sexual behaviors of unmarried youth in educational institutions in a conservative Muslim society, in Pakistan

Muhammad Ayub
Dost Welfare Foundation Pakistan

Background: In Peshawar, Pakistan, sexuality is a taboo topic and having friends of opposite sex is considered immoral. Heterosexuality/ homosexuality among youth, though hidden, but exist on a considerable scale. Youth are curious with their own developing sexuality and only have insufficient knowledge about sex and HIV/AIDS. The gap in knowledge about AIDS and no sex education are the leading factors, which put youth of Peshawar at high risk of being infected by HIV and other STIs.

Method: In a survey conducted by DOST Foundation information related to sexual knowledge and behaviors of youth were obtained through a questionnaire administered with 3,000 male and female students (age 12 to 26) from randomly selected educational institutions i.e. schools, colleges and universities.

Results: • 92% the unmarried females had no sexual contacts, whereas 25% of the unmarried male had sexual contacts, mostly kissing (15%), intercourse (10%). 45% the unmarried males and 15% unmarried females of age group 20-24, had sexual contacts, mostly (25%) had kissing and 20% had intercourse.

• 2% of those, who had sexual intercourse, had used condoms. 66% of the unmarried male, at age group 20-24, believed that using a condom reduce the amount of pleasure and joy in sex.

• 30% to 40% unmarried youth don't know about HIV/AIDS and its main routes of transmission (about 30% of the males and 40% of females).

• 39% of the males and 17% of females at the age of 21 to 24 were using drug.

Conclusions: It is proved from the d ata that youth in educational institutions, who were considered a very low risk group for HIV transmission, are actually at high risk of being infected by the deadly virus. Reproductive health education programs in both the formal and informal setups, based on cultural/ religious norms, are very vital.

muhammad.ayub@hotmail.com
Contact Phone: +92 321 9042487

PR3.1/6

Preventing HIV and STIs transmission among juveniles, women and drug addicts in prisons of the North-West Frontier Province (NWFP), Pakistan

Muhammad Ayub
Dost Welfare Foundation Pakistan

ISSUES: More than 3,000 inmates are incarcerated in women, juvenile and drug addict's barracks in 19 prisons of NWFP. There is high unawareness, frustration, massive overcrowding and lack of healthcare, life skills services, which result in high-risk behaviours for HIV and STI transmission in prisons. Due to strong cultural stigma attached with STIs and poor prison-healthcare system, the inmates are unable to access STI management services.

Elder/ hardcore juvenile inmates, who are 18-25, usually force the young age/ first-time-offenders for sexual favours. Majority of women are imprisoned for crimes of drug trafficking/use, illegal sexual relations, which increases the risks of unsafe homo/hetero sexual relations in prisons and inception of commercial-sex after release.

PROJECT: With financial assistance from AusAID, DOST Foundation implemented one-year (2004-2005) project for HIV and STIs prevention in nine selected prisons. Awareness sessions/ discussions, Counseling, VCT referral, STIs treatment, life skills education, developing/ showing of video drama, peer educator/ prison staff training were held.

RESULTS: In 90 awareness sessions, more than 800 juveniles, 600 women and 1500 drug-addicts were reached and provided with services. 180 prison staff, 30 peer educators was also trained. The project significantly increased the HIV prevention knowledge of these groups in prisons of NWFP. Post project survey confirmed that less incidence of high risk behavior recorded among prisoners.

LESSONS LEARNED: Culturally appropriate interventions and upgrading the prison health/social-care system, ensures easy access of HIV/ STIs information and services for inmates.

muhammad.ayub@hotmail.com
Contact Phone: +92 321 9042487

PR3.1/7

Behavioral profile of clients of harm reduction projects in Republic of Moldova: IDUs in 11 sites and FSWs in 5 sites

Otilia Scutelniciuc[1], Stela Bivol[2], Diana Plamadeala[3], Lev Zohrabyan[4], vitaly Slobozian[5],
Monitoring and Evaluation of National Health Programmes, National Centre of Health Management, Republic of Moldova [1], Center Moldova, Republic Of[2], Harm Reduction Programme, Soros Foundation Moldova[3] [5], UNAIDS, Regional Support Team Russian Federation[4]

Background: This study conducted in 2007 was aimed to describe behavioral characteristics of clients of harm reduction programme: IDUs selected from 11 sites and FSWs from in 5 sites.

Methods: Blood samples of 620 IDUs clients were selected using a probability two-stage cluster sampling design. "Take all" approach was used to sample 488 FSWs clients from 5 sites. This study utilized anonymous unlinked approach.

Results: Overall HIV prevalence in IDUs was 21% and it was higher in the age group 25 and older (25.7% vs. 9.6%.) and in females (24.2% vs. 20.1%). Overall prevalence of Hepatitis C was 42.7% and was higher in age group 25 and older (49.1% vs. 26.3%). Overall prevalence of Treponema pallidum antibodies was 12.1% and was higher in IDUs younger than 25 years (13.2% vs. 11.2%) and it was substantially higher in females (20.5% vs. 9.8%). The level of coinfection with HIV, Hep C and syphilis among IDUs was 3.5%. HIV positive IDUs were older (30.9 vs. 28.8), with longer history of injecting drugs (8.8 vs. 7 years). The overall HIV prevalence in FSWs was 10.9% and it was higher in age group 25 and older (5.6 % vs. 16%) and in FSWs injecting drugs (FSWIDU) (21.1% vs. 9.0%). Overall prevalence of Hepatitis C was 24.9% and was higher in age group 25 and older (30% vs. 16.7%) and in FSWIDU (39.5% vs. 22.6%). The overall prevalence syphilis was

13.3% and was higher in FSWIDU (18.4% vs. 12.4%). The level of coinfection among FSWs with HIV, Hepatitis C and syphilis was 2.3%.
Conclusions: There is biological evidence of high risk sexual and drug use behavior among clients from selected sites that leads to transmission of multiple blood born pathogens. The public health system needs to develop prevention strategies addressing these complex behavioral interactions. The current harm reduction strategies need reassessment and revamping of offered services and enhanced behavior change interventions. Hep B vaccination of those who are still negative is recommended.
otilia_sc@yahoo.com
Contact Phone: + 373 22 73 51 25

PR3.1/8
Eight years experience of prophylaxis after sexual exposure to HIV
Rejean Thomas[1], Sylvie Vezina[2], Marie-Claude Roy[3], Benoit Trottier[4], Robert O'Brien[5], Daniel Longpre[6], Daniell Legault[7], Daniel Murphy[8], Vinh-Kim Nguyen[9], Nima Machouf[10]
Clinique medicale l'Actuel Canada[1 2 3 4 6 7 8 9 10]

Background: Describe non-occupational post-exposure prophylaxis (PEP) use in a large urban sexual health clinic cohort and evaluate the determinants of completing PEP follow-up.

Methods: All patients consulting at Clinique l'Actuel for PEP since 2000, were recruited in this prospective study. Patients were assessed at day 1, and then followed for 6 months. Decision to administer PEP was based on risk evaluation. We investigated the major determinants of completion of PEP follow-up (FU). PEP FU was considered complete if the patient came back for HIV screening 3 or 6 months after exposition. Determinants were analysed by multiple logistic regression.

Results :639 consultations (84% male, median age 33 years) for PEP were included. 81% of the consultations were for a first PEP and 86% for a moderate/severe risk of exposure. No changes in characteristics of patients consulting for PEP over time were observed. Reason for consultation was 55% of homosexual risky contact, 31% of intercourse with an HIV+ partner, 9% with a sex worker, and 3% with a partner from an endemic region. Median delay before consultation was 29 hours, without significant variation over time (p=0.289). Risk assessment drove PEP administration, with 98% of patients treated after a high risk, 87% treated after a moderate risk and 19% after a minor risk of exposition. Regimen most often used was a combination of CBV-LPV with a shift to TVD-LPV since 2007. 68% of treated patients complained of adverse effects. Only 50% of the patients completed FU. Complete FU was more likely in patients with moderate/severe risk of exposition (OR=2.409; p<0.001), in men (OR=1.642; p=0.032) and in older patients (OR=1.045; p<0.001).

Conclusion :High risk sexual behaviour is common in our cohort. PEP may be an effective prevention strategy, as repeat PEP consultation was rare. Low rates of seroconversion in this high risk population suggests a preventive effect for these patients. While the high rate of loss to follow up is a limitation, those most at risk were more likely to complete follow-up, giving added opportunities for prevention counselling.
nmachouf@lactuel.ca

PR3.1/9
The lethal overdose – HIV/AIDS among injecting drug users in the Punjab province of Pakistan.

Ali Razaque
Punjab AIDS Control Programme Pakistan

Background: Like most Asian countries, in Pakistan people injecting drugs are highly stigmatized and criminalized. Access to generic health and social care is denied and is not available for those who are HIV positive.
Methods: In 2005, a comprehensive service delivery project for injecting drug users at four major cities of Lahore, Faisalabad, Sargodha and Sialkot in the Punjab Province was started under World Bank funded Enhanced HIV/AIDS Control Programme Punjab.
Results: Under this project, results of Rapid Situational Assessment done in year 2005 showed that Pakistan no longer has window of opportunity to act in advance to prevent transmission of HIV/AIDS among people injecting drugs. With HIV prevalence as high as 9.5% and 12% in cities of Faisalabad and Sargodha, respectively, the price of in-action would be immense. In same cities the HIV prevalence increased up to 20% and 51%, respectively, during year 2006-07. In settings similar to ours, where people inject drugs and share needles, HIV prevalence can reach pandemic proportions in short time. Intervention package with multitude of services has been scaled up with coverage from 1000 injecting drug users per day in year 2005 to over 4000 injecting drug users per day in year 2006. By the end of year 2008, the services were being provided to nearly 14,000 injecting drug users at four identified cities.

Conclusion: Interventions to prevent HIV/AIDS among people injecting drugs need to be scaled up and mainstreamed within the health care system of the Government in close partnership with civil society organizations and networks affiliated with the affected communities.
pd_pacp@yahoo.com
Contact Phone: +92-42-9200982

PR3.1/10
Unmasking Masculinities: Understanding gendered drivers of HIV risk taking behavior among male migrants in India
Suvakanta Swain[1], Shrikant Singh[2], Saggurti Niranjan[3]
Population Council India[1 3], International Institue for Population Sciences India[2]

Although the HIV rate in India is not high over all (.036%), the southern and central Indian states, are experiencing much higher HIV prevalence compared to nation as a whole (.6 % to 1.1% vs. .036%). HIV prevalence rates among female sex workers (FSWs) and male STD clinics patient (largely male clients of FSWs) in these states range between 7-24% which supports several evidence based arguments, the risk of HIV is attributed to transactional heterosexual encounters .As these states are mostly destinations of single male migrants form rural India, there is always a high risk of bridging the epidemic to lower risk regions and groups. It is important to understand the context and drivers of risk behaviour among migrant men. This paper attempts to understand the linkages between male gender identity and HIV risk behavior in a western Indian state, Maharastra, which is one of the earliest states

affected by HIV and one of the majour destinations of single male rural out migrants. Further this paper identifies the possible tap points of masculinities building process to execute as a risk prevention model.
The survey data of1476 sexually active (18 to 45 age group) migrant males, the qualitative data of 35 In-depth interviews and16 focus group discussions including 12 key informant interviews from multi cities in the city of Mumbai, which is know as financial capital of India has been recruited for current purpose. The multivariate statistical analysis has been executed for the quantitative data and for qualitative, thematic correlation model has been used to achieve the study objectives.

The findings reveal, there is high prevalence of transactional sex (31 perecnt) among the migrant men and mostly unsafe in nature, with a condom nonuse (48%) and alcohol accompanied sexual encounter (29.4%). The over all alcohol use among these migrant population is also high (68%). Further the adjusted odds ratio shows a strong positive association between the self perceived masculinities and these risk taking behvaiour. The migrant men who are into younger age group, unmarried, into manual jobs and with a multiple mobility history link their perceived gender identity in accepting the risky behavuorial outlets. The qualitative data unfolds; these men see the role within family, working status, sexual image and image among the peers as the four major components of masculinity, where they describe the male role as dominantly hegemonic. To quote one nineteen year old worker who is a regular visitor to the sex workers says, "
how can a man can control?... we are adults now I have never thought of using condom
she looks fine nothing happens to a man once you get afraid ,means you are gone."
Young migrant men, who are into certain occupational and cultural contexts, display hegemonic masculinities which again give them a platform to defend their acceptance to the sexual and other risk behaviour. The decomposed model of masculinities advocate for locale cultural intervention within community and among communities.
mail2shubh@gmail.com
Contact Phone: +9873336864

3.2 Prevention: Concepts and Effects

PR3.2/1
KNOWLEDGE, ATTITUDE, AND UNIVERSAL PRECAUTION PRACTICES TOWARDS HIV/AIDS AMONG MEDICAL STUDENTS IN QUETTA DISTRICT, PAKISTAN
Dr. Dawood Riaz
Health Department, Government of Balochistan Pakistan

Medical students are at high risk of being exposed to blood-born diseases like HIV infection. This cross-sectional study aimed to assess the knowledge, attitude and universal precaution practices towards HIV/AIDS among medical students in Bolan Medical College Quetta, Pakistan. Two hundred and thirty medical students from year 3rd to 5th were invited to fill out a self-administered questionnaire.

A total of 203 medical students consented to participate in this study, giving a response rate of 88.2%. Among them 32.5% had good universal precaution practices, 54.7% had moderate and 12.8% had poor universal precaution practices towards HIV/AIDS. Practices regarding universal precaution practices among medical students mostly at moderate level but some students had risky behavior, such as recap, bent or broke needles by hand after used to patients and disposed sharp instruments with other clinical waste. Moreover, the knowledge and attitude level of the medical students were found moderate towards HIV/AIDS and universal precaution practices. Statistical analysis indicated that there was significant association between knowledge and universal precaution practices (p=0.002) and attitude and universal precaution practices (p=0.023). Medical students still had limited knowledge about mode of transmission of HIV because of lack of understanding, and had no experience on it.

Knowledge on HIV/AIDS and universal precaution should be improved and implemented in the medical college curriculum, it should emphasize on misconception, lack of understanding and supporting and promoting the students to adapt positive attitude towards universal precaution practices. Facilities for universal precaution practice should be provided in regular basis.
sumthinginterest@gmail.com
Contact Phone: 92-333-7804297

PR3.2/2
Assessment of HIV Prevalence and other Illnesses among Women in the Electronics and Semiconductor in the Philippines
Jinky Leilanie Lu[1], Jinky Leilanie Lu[2]
National Intitutes of Health, Univeristy of the Philippines Manila Philippines[1 2]

Objectives: This study tried to look at HIV prevalence in the workplace, and other co-existing illnesses among women workers in diverse manufacturing industries. One of the better places to promote understanding of HIV- its etiology, prevention, treatment and management- is in the workplace since employees represent a captive audience, and strategies can be incorporated in the occupational health program of the company. This is in line with the directive in the Philippines to incorporate HIV sensitization among workers in the occupational setting.

Methods: The research study was conducted in ten industries in an export zone in the Philippines, and questionnaires were given to 500 women workers. This was a stratified sampling design of manufacturing industries, and then stratification of various workstations for the selection of the women subjects. Medical record review was also conducted, as well as blood extraction for determination of certain illnesses.

Results: Based on existing case studies and researchers, it is known that HIV comes with other co-infections due to the depressed immunology resistance of the patients. Examples of such co-infections include pneumococcal and other bacterial pneumonia, pulmonary TB, herpes zoster, thrush, candidal esophagitis, cryptosporidiosis, self-limited, and kaposis's sarcoma. Since HIV is a sensitive issue in the workplace as employees feel that this can be used against them, this study tried to look into the variety of illnesses, together with HIV among women workers. Results showed that cough and colds as expected is highest at 60.4% and upper respiratory tract infection at 20%. There was also 25 reported cases of bronchitis, 25 cases of bronchial asthma, 6 cases of pneumonia, 3 cases of pneumonitis and 7 cases of tuberculosis. The data

showed that the illnesses prevalent in developing countries are communicable and infectious in nature and does exist in the workplace. For the genito-urinary system, urinary tract infection is most prevalent (98.2%) , followed by renal stones (1.2%). The results of reproductive illness shows that there was 13 cases of threatened abortion and one with incomplete abortion. Anemia is the highest (98.8%) reported case for blood and circulatory problems. . The Data and medical records, however, did not show any positive identification of HIV among women workers.

Conclusion: This study gives a good background for investigating HIV/ AIDS in the workplace. The results show high prevalence of infectious illnesses that is contracted in the workplace. When investigating HIV at work, it is ethical to also include other illnesses of workers. It is important to continue with information dissemination on preventing HIV/ AIDS, and other related issues in the workplace. Since there was 100% response rate to questionnaires, health investigation and strategies on HIV would be viable in the workplace setting.
Contact Phone: +6325264266

PR3.2/3
Religious Students and HIV AIDS
Muhammad Jamil[1], Muhammad Jamil[2], Rana A.[3], Muhammad Naeem[4], Muhammad Elyas[5]
HESJIWE NGO Pakistan[1 2 4 5], AMAL Pakistan[3]

Issue/ Background: Islamic charities provide health, education and social services to millions of people in Pakistan. But in Pakistan still sexuality is a taboo topic. Strong hold of religious leaders on socio cultural pattern of community (attitude with extremism). Prevailing concepts to talk about sex considered as act of vulgarity and immoral activity. Word HIV/AIDS conceived as symbol of sexual delinquencies.

Method: Through a Questionnaire data on knowledge, attitude, behavior and practices related to STIs/HIV/AIDS was collected from 1200 male religious students and religious scholars from randomly selected Islamic religious centers.
Baseline knowledge, attitude, acceptability of the concept were assessed.

Activities/ Results: According to KABP study 70% students have friends of opposite sex and due to strong religious values and restriction 30% have no friendship with opposite sex. Regarding nature of sex, 40% had kissing and only 18% had intercourse. During intercourse only 3% used condoms. 42% consider that condom is used only for family planning purpose. 56% answered that during intercourse use of condoms reduce sexual pleasure and enjoyment. 32% youth use drugs and 38% did not know about HIV/AIDS.
General discussions were also started with four Maderssas students and their teachers. These meetings addressed the sensitization of religious scholars to the issue of HIV/AIDS and highlight the role of Maderssas in HIV prevention.

Conclusions/ Recommendations: Training of adolescent as peer educators is recommended. Ours being an Islamic society, such information should be given to youth in a way that does not challenge local norms and values. Problem-based learning and participatory education for improving knowledge and condom use and community-based interventions should be considered for STDs/HIV/AIDS prevention.
hesjive@yahoo.ca
Telephone: 923003833797

PR3.2/4
Increased Awareness on Life skills, Peer education and HIV/AIDS through capacity building of Youth Organizations and NGOs
Muhammad Munir[1], Shokat Hussain[2], Ahmad R.[3], Rafiushan Ahmad[4], Rana Farman[5]
STREET Pakistan[1 2 3 4 5]

Street Theatre: Street Theatre is an effective tool for disseminating the challenging messages especially among the marginalized communities
Helping people to become part of process
Bringing marginalized communities close to generate discussion and talk about the issues regarding their practical life

Objectives: To reduce the risk of HIV transmission in Pakistan; and to mobilize NGOs and community support so that Life Skills and HIV/AIDS become cross cutting themes in development agendas and programs
Technical capacity building of youth organizations and NGOs working for increased awareness on Life skills and prevention of HIV/AIDS

Methodology: Organized a mobile theater team to work closely with community NGOs and CBOs to raise awareness of community members through cultural activities (songs, skits and plays etc.). The play was developed keeping in mind cultural, social and religious sensibilities.
Interaction with community members at a general level to collect basic information about cultural and religious believes and sensibilities
Amend play according to the information gathered from community and local organizations
Discussion with audience (community members) this discussion session was conducted as a part of the performance. As soon as the performance was completed the actors interacted with the audience and divided them into small groups to talk about issues raised in the play

Conclusion/Achievements: The project today has surpassed targets that were set and has mobilized communities through participatory street theaters and non-formal peer based sessions.
The most remarkable achievement has been the willing and voluntary participation of communities and contributions made in the form of time, venues, logistics support, coordinating with local stakeholders, financial support, ensuring presence of women (especially young) where gender balance was achieved.
Mobilized CBOs/NGOs to integrate Life skills and HIV/AIDS into their ongoing community uplift projects working in Pakistan.

Recommendations: It was found that highly vulnerable among adolescents are the working children particularly girls, as they lack protective measures during any sexual abuse attempt are unaware of safe sexual practices. Training of adolescent as Peer educators is recommended.
streetngopk@yahoo.ca
Telephone: 923003833797

PR3.2/5

Cultural beliefs and practices impact on understanding of HIV knowledge and adoption of prevention behaviour: a case from rural Kisumu, Kenya

Gertrude Wafula Anyango[1],The University of Manchester United Kingdom[1]

Background: This paper is aimed at describing the local understanding, meaning of illness and experiences of HIV epidemic among the Luo community of Kisumu, rural Kenya. Knowledge and perceptions of risk have been seen as two necessary conditions for behaviour change (Akwara et al, 2003; Bernardi 2002). However little information is available on the local understanding and experiences of the disease more so in high prevalence areas like Kisumu Kenya and how local knowledge interacts with biomedical knowledge in relation to HIV.

Methodology: Data was collected from men and women aged 14-49, from three locations; Kisian, Nyahera and Chulaimbo in rural Kisumu Kenya. The study was done in two phases. Phase I, was mainly survey and Phase II, in-depth interviews. A total of 356 participated in Phase I and 33 in Phase II. Both survey questionnaires and in-depth interviews were conducted for the period July 2004-September 2005. The SPSS statistical package was used to analyse data and test for significance of various variables from Phase 1, while a theoretical framework was adopted for analysis in Phase 2.

Results: Most participant lacked understanding of specific HIV knowledge. Participants used local terms to explain the occurrence of the HIV. '*Chira*' (curse) was common word associate with HIV. The community sought non medical knowledge to explain the HIV illness including visiting witch doctors and religious leaders, used different words to explain the complexity of the disease like '*big fever', 'eldest son', 'take my flesh' and 'leave me the bones'*. Men had better knowledge of HIV, its transmission and prevention than women (χ^2 = 15. 7, df = 4, p=0.003). Participants in more rural had limited understanding of the HIV disease, its transmission and prevention than those in the more urban areas (χ^2 = 35.9, df = 12, p<0.001) and the more education one had the more knowledge they had on HIV, its transmission and prevention ($\chi 2$ =6.2, df =1, p<0.001). However, cultural beliefs reduced the understanding of the HIV virus, its transmission and prevention. The social and cultural expectation from both genders dictated choices of prevention messages with women mainly powerless to make decisions on having sex and use of protection.

Conclusion: To understand individual response to the HIV there is need to know how they experience the illness and the community factors mediating this. The local understanding and culture plays a crucial role in understanding the epidemic. These forms of knowledge and practises though not recognised are important as they interact with the recognised (scientific) knowledge and shape individual response to illness. Insights into Luo community of understanding HIV may offer possible strategies in providing better intervention to reduce HIV in the locality.

gertrude.a.wafula@postgrad.manchester.ac.uk
Telephone: 00447985597890

PR3.2/6

Safe-sex Practices a Major Challenge Among Discordant Couples (15-77 years) in Uganda

Stephen Malinzi[1], Stephen Malinzi[2], Dr. Jonathan Wangisi[3]
The AIDs Support Organization(TASO) (U) Ltd Uganda[1 2 3]

Background. The AIDS Support Organization (TASO) exists to contribute to the process of preventing HIV infection, restoring hope and improving the Quality of life of persons, families & communities affected by HIV infection and disease.

TASO (U) Ltd, a non-governmental Organization was started in 1987 to care and support people infected and affected with HIV/AIDS in Uganda.

Routine counseling; one of the core-services of TASO; provides information on safe-sex practices, HIV/STD prevention and myths relating to discordance.

Issue/Problem. The myths and insufficient information relating to discordance undermines the relevance of safe-sex practices among the discordant-couples. Most new cases of HIV in Africa occur within cohabitating HIV discordant couples (= in which one partner is HIV infected and the other is HIV uninfected).The discordant couples under study are aware of their HIV sero-status.

Even with intensive counseling about strategies to prevent HIV transmission, HIV risk is very high for HIV-uninfected partners in discordant couples.

Most of the discordant couples are sexually active and frequently desire to become pregnant. This is challenging when condom use is the main prevention strategy.

Methodology. A sample of active discordant-couples (15-77 years); registered with TASO Rukungiri (2004-2007) and accessed routine-counseling services (2007-Oct'2008) were identified and their sex-activity, condom-use practices and FP uptake assessed. Data was analyzed using SPSS, STATA, and EPi2000.

Results. 271(38.7% female; 61.3% male) discordant-couples had registered with TASO Rukungiri by end of 2007. Proportions of discordant-couples enrolled annually: 2004(14.4%), 2005(22.9%); 2006(23.2%) and 2007(39.5%).

235(86.7%) discordant-couples were sexually active.

71.9% of the SADC reported to use condoms correctly and consistently; 90.6% of the SADC were screened for STDs; 12.3% were diagnosed with STDs. And 1/15 pregnant mother was on PMTCT.

FP was associated with 66.0% of the SADC [7.5 % (Pills); 3.8 %(injections); 94.8 %(condom-use) and 1.9 % (Others)].

Lessons learnt. Condom-use; the main prevention strategy has its own limitations because most of the couples are sexually active and frequently desire to become pregnancy. Myths like discordance is for a life-time, some people have higher resistance to HIV infection; some people are just carriers of HIV/AIDS around discordance and unsafe-sex practices were significant barriers (P=0.001) to HIV/STD prevention among SADC.

Conclusion/Recommendations. Routine counseling and sensitization should fully address the myths around discordance and unsafe-sex practices among the SADC.

All SADC be screened/treated for STDs All HIV-positive-pregnant mothers should embrace PMTCT.

stefan_kakube@yahoo.co.uk
Contact Phone: +256-772-416-475

PR3.2/7

Family Health Teams Strategy for HIV/AIDS/STI Prevention and Care

Maria Eugenia Lemos Fernandes[1], Silas Pereira Barbosa Jr.[2]
Associacao Saude da Familia Brazil[1 2]

Background: The Brazilian AIDS Program has been considered a successful model for other countries. However, the number of new AIDS cases is now increasing among poor people, women and youngsters . In this context, a model based on the family health teams has a high potential to promote and deliver health care. The scope of this project is the maintenance of a sustained response to STI/HIV/AIDS prevention, care and treatment in deprived areas of large cities in Brazil.
Methods: With funding donated by Johnson and Johnson, Associação Saúde da Família (ASF) implemented a capacity building project to integrate HIV/AIDS/STD and reproductive health related activities into primary care in regions of two large cities in Brazil, São Paulo and Fortaleza. Over half million people with an average monthly family income of US$ 320 live in each of these regions. Family Health Teams were trained to offer STI/HIV/AIDS prevention care and treatment door-to-door and at Primary Care Health Units. This project was initially replicated to the city of Fortaleza and is planned to be expanded to other regions.
Results: From January 2005 to December 2007 an estimated number of 8 million door to door were systematically and repeatedly made to women, men and adolescents by trained Health Community Agents. During the intervention approximately 2.5 million condom units were distributed, 33,099 people were vaccinated for Hepatitis B, and approximately 10,000 people were tested for HIV and syphilis. A noticeable decrease in the incidence of unwanted pregnancies among adolescents was observed as well as a substantial increase in the diagnosis and treatment of STIs.
Conclusions: The present strategy is a viable model for implementation of large scale HIV/AIDS/STI prevention and care, which can be expanded to other cities and communities in Brazil, and should be considered as a potential model for the developing world.
silasbar@terra.com.br
Contact Phone: +55 11 31547056

PR3.2/8
Impact of duration, group size, and power point on changes in knowledge and attitude after an HIV/AIDS educational intervention among high-school students
Peter Barss[1], Maria Ganczak[2], Michal Grivna[3], Roos Bernson[4]
UAE University United Arab Emirates[1 3 4], Pomeranian Medical University Poland[2]

Introduction. We developed a rapid educational intervention and evaluated the impact of serendipitous differences in duration, group size and setting, and technology used at different schools on knowledge about HIV/AIDS and attitudes towards people living with HIV (PLH) of high school students.
Methods. Four small teams of final-year medical students, three female and one male, were trained to give teaching and workshops on HIV/AIDS in two main cities of the United Arab Emirates. Using multistage random sampling, 56 female and 14 male classes of grade 12 students (74% females n=1398, 26% males n=505) from 10 female and 5 male schools in Al Ain and 4 female schools in Abu Dhabi were selected. Baseline and post-intervention knowledge and attitude were assessed by paired questionnaires. Although the intervention was planned for one hour, including a factual presentation to improve knowledge and three participatory workshops for attitudes to PLH, different student groups were allocated greater or lesser time for the intervention by school officials. In the four female schools in Abu Dhabi, students were given 60 minutes per class, while in Al Ain, one group was allocated 90 per class in six schools and another group 45 to 90 depending on the school. Male students were given 105 minutes per class in the four schools they visited. Power point projection was used for the knowledge presentation in all Al Ain schools, but in only half of those in Abu Dhabi. Significance of changes, of different duration of the intervention, and use/ non-use of power point were tested by McNemar, Wilcoxon signed ranks, and multilevel linear regression.
Results. Response was 99.6%. Final sample size was 1903, 1398 females and 505 males. Mean relative knowledge score improved 26% and attitude score 26% ($p<0.0005$). Teaching of students in small groups in their classroom setting rather than several classes together in large rooms ($p<0.03$), longer duration of 90 minutes for the entire intervention compared with 40-60 minutes ($p<0.005$), and non-use of power point technology ($p<0.002$) all had significant impact on the degree of improvement of attitude scores. Non-use of power point also resulted in a greater improvement of knowledge scores, although non-significant, while duration and setting had no impact on the degree of improvement of knowledge.
Conclusions. The study underscores the importance of an impact of methodological issues as duration, group size and setting, and technology used on the outcome of the HIV/AIDS educational interventions among adolescents, such as an improvement of knowledge and attitudes.
mganczak@sci.pam.szczecin.pl
Contact Phone: +48 91 48 713 92

PR3.2/9
Study to monitor condom usage among MSM and MSW populations in Mumbai India.
Kim Singh, Asian AIDS Action India
Background. The paper seeks to arrive at an understanding behind behaviorial changes in the MSM and MSW communities regarding usage of contraceptives in the Mumbai area in India. A parallel study was conducted among South Asian MSM communities in the London area in UK.
Methods : A semi-structured questionnaire of 92 questions was pre-tested by trained field workers before being administered to a 'blanket sampling' of 173 MSWs. This included questions that uncover the population's knowledge, attitudes and prevalence of abusive and preventive behaviours, and provides information regarding their clientele.
Results : The survey found significant and encouraging changes compared with one year earlier. While 84% of respondents who were involved in receptive anal sex reported that their partners always used a condom, compared with 41%, two years earlier, the average number of sex partners was seven, compared with 11, two years previously. As in 2006/07, about half of the respondents also had sex with female partners, but the proportion that used condoms rose from 34% to 47%.
Conclusion(s). Over 32% of MSWs consume liquor and report the use of other intoxicants, such as betel nut) or chewing tobacco prior to sex. 35%of MSWs has had STI in the past 6 months but 38% treated them with traditional medicine. Condom accessibility and use is relatively high; e.g. 95% of MSWs use condoms during receptive anal sex with clients. 65 % of MSWs reveal their clients wear

condoms when oral sex is performed on them but the majority of MSWs (68.7%) do NOT when they are the receptive partners (25% of MSWs). MSWs report an average of 25 male partners in a week. Approximately 14% also have sex with females, mainly non-spousal sex partners (75%). 82% of MSWs are always receptive anal partners during sexual acts with their clients;15% of MSWs admit to being insertive partners. Conclusion: It was noted that while overall HIV knowledge and condom usage was high, programs targeting MSWs should address misconceptions regarding HIV transmission, STI treatment, and substance abuse associated with commercial sex activity. Also, information uncovered through this baseline data suggests outreach activities to female and receptive male clients should be developed and enhanced.

kim_singh@yahoo.com
Contact Phone: + 91 99878 21640

3.3 Care and Support

PR3.3/1

Perceived stigma and discrimination among the laboratory technicians towards people having HIV/AIDS

Dr. Mahfuza Mousumi[1], Dr. Shafiqul Islam[2]
Save the Children USA, Bangladesh[1], Marie Stopes Clinic Society,Bangladesh[2]

A cross sectional study on perceived stigma and discrimination among the laboratory technicians towards people having HIV/AIDS in different laboratory of Dhaka city was carried out. One hundred and twenty-five respondents were interviewed face to face by using interview schedule and the study was conducted during April to June'2006. All respondents heard of HIV/AIDS and the prime source of information about HIV and AIDS was Television (98%), followed by daily newspapers (73%) ,poster (68%), radio and colleagues(31%). The study showed that, only 36 percent respondent had tested the blood of a known HIV/AIDS patient and about 3 percent respondent had knew someone who were HIV positive personally. Only 14 percent had some training about the disease but rest had no such training at all. Over 30 percent of respondents with excellent knowledge had less stigma and discrimination whereas respondents who had poor knowledge more than 30 percent possessed high level and around 69 percent possessed moderate level of stigma and discrimination towards HIV/AIDS patients suggesting that higher the level of knowledge about HIV/AIDS, lower the level of stigma and discrimination. The study revealed that the Laboratory assistant had higher stigma-discrimination compared to the Medical technologist.

The study showed a positive relationship existed between mass media and knowledge suggesting that as exposure to mass media increased, knowledge about HIV/AIDS also increased. Negative correlations were observed between knowledge and stigma, knowledge and discrimination, knowledge and combined stigma-discrimination, mass media and combined stigma-discrimination. This indicates that knowledge and exposure to mass media about HIV/AIDS reduces stigma and discriminating attitude towards HIV/AIDS patients. Therefore, adequate knowledge about transmission and prevention of HIV/AIDS, access to different mass media and proper training or workshop on HIV/AIDS may reduce the stigma and discrimination among the laboratory technicians as well as care providers towards people having HIV and AIDS.

Comments: Stigma and discrimination among care givers towards people living with HIV and AIDS(PLWHA) is very high in the developing countries like Bangladesh. For this reason, PLWHA might be under reported and unaddressed and they are not receiving health care and support from the care givers not even for Voluntary Counseling and Testing(VCT). So, it is very impotant to sensitize health care providers to ensure a effective case reporting,care and support for the PLWHA.

mmousumi@savechildren.org
Contact Phone: +1911381583

PR3.3/2

Experiences Sharing of Methadone Substitution Therapy in Nepal

Dr. Saroj Prasad Ojha, Tribhuvan University Teaching Hospital, Maharajgunj, Kathmandu Nepal

A country with immense cultural and geographical richness and diversity, Nepal has a population of around 20 million (40.2% under age 15) composed of different races and tribes living in different regions. Ranked 142 in Human Development Report (2007) with per capita income US $240, the lower social economic status cab be explained by low life expectancy at birth (62.6 yrs.), low literacy rate (48.6) and high annual population growth rate of 2.25 percent.

In Nepal, from the beginning of 1990s, the use of narcotic drugs and psychotropic substances became increasingly popular among youth population. The drug use appears to be increasing more and more popular since drugs are easily available, comparatively cheaper to price and with relatively longer effect. In Nepal scientific estimates of the number of drugs users are unknown; however, ten years back the no. of drug users in Nepal was already estimated to be more then fifty thousand. Due to the unplanned urbanization, unsafe migration and increase in the effects of organized crime, networks, it is in the projected that the number has increased quite significantly in recent days.

A study conducted by Central Bureau of Statistics (CBS 2007) has shown that there are 46,309 hard drug-users in Nepal. The study has shown that around three-fourth (75.7%) drugs users are below the age of 30. Among the total drug users, 61.4% are IDUs and 29% of them share needles with their friends. Currently there are 70.256 people estimated to be living with HIV, among them 6493 (9.2%) persons with HIV are IDUs. However, the prevalence of HIV among IDUS varies: in Kathmandu 51.6%, in Eastern Terai districts 31.7%, Western Terai 11.7% and in Pokhara 21.7%.

In Nepal, oral substitution therapy was identified in 2001 as part of joint national response of Nepal Initiative to halt the HIV/AIDS epidemic from high - risk groups, particularly IDU, to the general public (Nepal Initiative). The government of Nepal has agreed with the UNODC executed project "Prevention Transmission of HIV among drug users in SAARC countries (2007-2012)".

Department of Psychiatry, Tribhuvan University Teaching Hospital with the financial and technical support of UNODC and with the collaboration of Home Ministry of Nepal Government, WHO, UNDP has been running Methadone Maintenance Treatment (MMT) Programme since November 2007 as an emergency response for IDUs in

Nepal. At present, there are regular 100 IDUs clients, who are attending the clinic daily. Besides, there are 29 IDUs are in the waiting list to get the service from MMT clinic. Considering high demand of MMT program, it has been proposed to the donors for the scaling up of MMT program in and outside Kathmandu valley. All those issues and experiences learning with MMT program in Nepal will be discussed.

ojhasp@yahoio.com
Contact Phone: 977-1 9851038299,

PR3.3/3

Pediatric disclosure: Family caregiver's perceptions on HIV disclosure to children living with HIV

Meenalochani Dilip[1], Beena Thomas[2], Chandra Suresh[3]
Tuberculosis Research Centre India[1 2 3]

Background: Disclosure of diagnosis of HIV infection to children is a complex task for parents and caregivers. Availability of anti retro viral treatment has made it mandatory that children and caregivers visit ART clinics . Many studies have emphasized that children who are informed about their diagnosis have better coping and higher self esteem and parents who disclose HIV status to their children express less depression than parents who do not disclose. However parents and caregivers are reluctant to disclose the diagnosis to their children for various reasons. There is dearth of information about this issue in India.

Methods: This study was carried out to assess parents or caregivers on disclosure of diagnosis to HIV positive children and elicit reasons for disclosure or non-disclosure. This was a cross sectional study from a cohort of 200 HIV children registered in 2 pediatric clinical studies between 2000-2007. Since the study was on family care givers, only children living with parents or family caregivers were eligible for the study. This meant that 95 children at the Chennai site were eligible for the study. 65 caregivers were interviewed after obtaining written informed consent.
A semi structured, interviewer administered questionnaire, was used for data collection. Qualitative data was gathered from in depth interviews.

Findings: Nearly 88% of the parents had not disclosed to the child that he/she was infected with HIV. Only 8 (12%) children were aware of their diagnosis of which only 3 parents had revealed the diagnosis themselves. The other parents admitted that child had come to know of his/her diagnosis from a health care provider or had read health education material. Sixty two percent of the children were on anti retroviral treatment. The profile of care givers was mothers (58.5%), fathers(18,5%) grandparents and other relatives (23%). Nearly half the respondents said that they were asked illness related questions by the children. Reasons for not disclosing the HIV status to the child was concern for the child's negative reactions, fear of stigma and discrimination, and fear of child's questions regarding parental illness. Nearly three quarter of the respondents said that they would disclose when the child was older and were of the opinion that the best age for disclosure of HIV diagnosis to children was between 12 and 15 years. Sixty percent of parents said that it is better that parents disclose to children while 37% felt that health care professionals should disclose the diagnosis. The others were undecided on who should disclose.

Conclusions. With the accessibility and availability of antiretroviral treatment, disclosure of the child's HIV status is a big challenge among caregivers who are most often themselves HIV positive. Care givers need help with regard to disclosure from health providers who often do not address this concern among care givers. It is important therefore to focus on a healthy approach to disclosure through intervention strategies that address the concerns of the care givers and their HIV positive children.

minudilip@gmail.com

PR3.3/4

Pediatric disclosure: Family caregiver's perceptions on HIV disclosure to children living with HIV

Meenalochani Dilip[1], Beena Thomas[2], Chandra Suresh[3]
Tuberculosis Research Centre India[1 2 3]

Background: Disclosure of diagnosis of HIV infection to children is a complex task for parents and caregivers. Availability of anti retro viral treatment has made it mandatory that children and caregivers visit ART clinics . Many studies have emphasized that children who are informed about their diagnosis have better coping and higher self esteem and parents who disclose HIV status to their children express less depression than parents who do not disclose. However parents and caregivers are reluctant to disclose the diagnosis to their children for various reasons. There is dearth of information about this issue in India.

Methods: This study was carried out to assess parents or caregivers on disclosure of diagnosis to HIV positive children and elicit reasons for disclosure or non-disclosure. This was a cross sectional study from a cohort of 200 HIV children registered in 2 pediatric clinical studies between 2000-2007. Since the study was on family care givers, only children living with parents or family caregivers were eligible for the study. This meant that 95 children at the Chennai site were eligible for the study. 65 caregivers were interviewed after obtaining written informed consent.
A semi structured, interviewer administered questionnaire, was used for data collection. Qualitative data was gathered from in depth interviews.

Findings: Nearly 88% of the parents had not disclosed to the child that he/she was infected with HIV. Only 8 (12%) children were aware of their diagnosis of which only 3 parents had revealed the diagnosis themselves. The other parents admitted that child had come to know of his/her diagnosis from a health care provider or had read health education material. Sixty two percent of the children were on anti retroviral treatment. The profile of care givers was mothers (58.5%), fathers(18,5%) grandparents and other relatives (23%). Nearly half the respondents said that they were asked illness related questions by the children. Reasons for not disclosing the HIV status to the child was concern for the child's negative reactions, fear of stigma and discrimination, and fear of child's questions regarding parental illness. Nearly three quarter of the respondents said that they would disclose when the child was older and were of the opinion that the best age for disclosure of HIV diagnosis to children was between 12 and 15 years. Sixty percent of parents said that it is better that parents disclose to children while 37% felt that health care professionals should disclose the diagnosis. The others were undecided on who should disclose.

Conclusions. With the accessibility and availability of antiretroviral treatment, disclosure of the child's HIV status is a big challenge among caregivers who are most often themselves HIV positive. Care givers need help with regard to disclosure from health providers who often do not address this concern among care givers. It is important therefore to focus on a healthy approach to disclosure through intervention strategies that address the concerns of the care givers and their HIV positive children.
minudilip@gmail.com

3.4 Societal Reactions on HIV/AIDS and Public Health Policies

PR3.4/1
Improvement of Human Rights and access to legislative services for People living with HIV/AIDS in Serbia through better understanding of Serbian legislation
Miljana Grbic[1], Vojin Dimitrijevic[2], Nenad Petkovic[3], Ana Maricic[4], Melita Vujnovic[5], Rade Grbic[6], Milos Stojanovic[7], Larisa Vujnovic[8]
UNAIDS Serbia[1 2 3 4 5 6 7 8]

Background: Widespread discrimination is preventing many countries from adopting effective preventative measures against HIV/AIDS. In this battle against HIV/AIDS, the protection of human rights is as important as the protection of public health. Only by supporting human rights we can successfully tackle the disease. Discrimination and stigmatization may often be the result of certain legislative solutions.
Following the mandate of UNDP/UNAIDS in the field of support to human rights of People living with HIV, UNDP CO/UN Theme Group on HIV/AIDS in Serbia have supported review of existing legislation towards PLHIV in Serbia. The aim was to acquaint PLHIV with their rights, possibilities and to improve access to services. Under the request of UN Theme Group on HIV/AIDS/UNDP Country Office in Serbia a group of experts undertook an analysis of Serbian legislation in order to find out if there are regulations of a discriminatory and/or stigmatizing character, and to find out what kinds of regulations are missing when it comes to the protection of PLHIV
Methods: The analysis of regulations of the Republic of Serbia regarding testing, protection of confidential information, keeping of medical records and files, health insurance, medical assistance, criminal liability for transmission of the disease, social welfare, compensation, education, work, status of children living with HIV, marriage and family, were performed, while compared to the key international treaties and other international documents pertaining to HIV/AIDS issues.
Results: The analysis has shown the need to influence the attitude of the general public regarding HIV and to put more effort into prevention and make attitudes towards the PLHIV more human. Serbian legislation contains provisions that could be adjusted or amended in order to improve the legal status and respect for the human rights of the People living with HIV and make the fight against the HIV epidemics more efficient, in accordance with international standards.
Conclusions: To overcome barriers in order to improve legal status and respect for the human rights of the People living with HIV/AIDS, the best solution agreed upon by the legal experts, is to pass a special law (lex specialis) that will regulate most of the issues in connection with HIV/AIDS. This analysis of Serbian legislation from the perspective of protecting the human rights of people living with HIV, is intended for ministries (particularly the Ministry of Health and Social Welfare and the Ministry of Justice), non-governmental organisations and legislators, as well as for people living with HIV. A handbook on the rights of PLHIV (rights related to testing, protection of privacy, medical treatment, education, compensation for damages, employment and work, travel, health and social insurance, housing etc.) will follow this analysis.
lana.grbic@undp.org Contact Phone: +381641448868

PR3.4/2
Influence of the legal regulations on the ST scale up in Ukraine
Sergiy Rudiy[1], Elena Wagner[2], Konstantin Lezhentsev[3], Vasiliy Michalchuk[4]

All-Ukrainian Network of PLWH Ukraine[1 2 3], Commettee on HIV/AIDS, Ministry of Health Ukraine[4]
Substitution therapy (ST) is an acknowledged method of treating opioid addiction, which allows in combination with the social and psychological rehabilitation to improve the quality of life of patients. Accessibility of ST programs directly depends on the complexity of legal regulation. The basic indicator of an effective government regulation is a number of patients and the enrolment rate.In Europe different tendencies can be observed - from prohibition to broad access. As known, access to ST and abilities of physicians to prescribe ST directly depend on complexity of the relevant state regulation and have an impact on the prevalence of "social" diseases, crime and treatment adherence levels. Two polar models of access to ST can be seen on the examples of Russia and Germany. In Russia ST it is forbidden and not available.Access to ST in Germany is regulated by non-governmental medical association, which trains and licenses doctors for ST. ST is considered as medical matter; drug distribution and control is effective even with no permits of cognizant law enforcement authorities required. HIV prevalence among IDUs is 3-8%; HIV/TB co-infection rate is 4%.Ukraine introduced ST in 2005 as a pilot project. At present more than 2800 patients are on methadone, 875 buprenorphine in 111 sites at 24 regions. By September 2009 6000 patients are planned for enrollment. By now ST scaled up to a nation-wide program and became an integral part of the country's HIV response. Legislation allows conducting ST in licensed treatment facilities with duly trained personnel. There are no overt prohibitions to prescribe ST by private and general practitioners. ST scale up is greatly hindered by hostile societal attitude and excessive scrutiny to ST patients and providers by law-enforcement agencies.Median HIV prevalence among IDU in Ukraine is 41,8% (range 18% - 62.8%).Thus, ST has to be considered as medical part of an overall effort to IDU re-socialization. Reduction of administrative barriers to conducting ST will increase its accessibility, impact HIV prevalence, improve the quality of life of patients, and broaden a spectrum of IDU-targeted programs. Distribution of ST drugs via pharmacies is one possible option of changed drug regulation. Ukrainian NGO experts developed a project on having a new policy document adopted at high national level as a mean to promote healthcare ownership of ST, creation of integrated care model, and make ST available at all levels of care (primary, secondary, tertiary). Active advocacy efforts of Ukrainian Network of PLWH led to streamlining access to ST, increase in the number of ST patients and sites. Reflecting such policy in national regulation will allow institutionalizing and further developing ST programs.

PR3.4/3

The HIV/AIDS policy that got high jacked- a case study on homophobic politics in Namibia and its implications for HIV preventions efforts

Cecilia Strand
Uppsala University Sweden

Namibia is a lower middle income country with a population of 1,9 miljon. The country has a HIV prevalence of 17,8 percent, and even though the epidemic seems to have stabilized lately, AIDS continues to be the primary cause of death. It is estimated that 39 Namibians are infected every day (MoHSS 2008). In an effort to curb the epidemic, the government of Namibia have developed a number of policies and documents to provide guidance to national prevention, treatment and care programmes. As a result, on paper Namibia has a comprehensive policy framework on HIV/AIDS that acknowledges and seeks to cater for the needs of most Namibians. The following paper analyses how the Namibian National HIV/AIDS Policy of 2007, ended up omitting individuals involved in same sex relations and their needs at the very end of the policy process. The omission was conspicuous as a national and regional consultative process producing the policy text had acknowledged individuals involved in same sex relations as a vulnerable group with special needs. Moreover, the inclusion of this group was well motivated by existing research concluding that negative social and cultural attitudes in Namibia often render these individuals particularly vulnerable to HIV infection. Nevertheless, all references to this group mysteriously never made it into the final printed version.
Content analysis was performed on available consultative meetings notes, consecutive versions of draft policy text, other background documentation such as research review, the 1992 HIV/AIDS policy, the Namibian Human Rights Charter. In addition, a number of interviews with key stakeholder were performed.
The omission of individuals involved in same sex relations from the policy is analysed by exploring the history of state -sanctioned discrimination against individuals involved in same sex relations. The paper argues that the official stance on same sex relations is likely to severely hamper efforts to curb the spread of HIV, as this group according to research have significant gaps in knowledge on safe sex, and is linked to the heterosexual population through the configuration of existing sexual networks.

In conclusion, the consultative process of the Namibian HIV/AIDS policy involved a number of the Namibian stakeholders from all sectors of society. The policy text that came out of that process indicates that the discriminatory attitudes prevalent in the higher echelons of Namibian politics are not shared, or if shared, disregarded in the efforts to produce the best HIV/AIDS policy possible. Furthermore, there are indications through the Namibian Round 8 Global Fund proposal, that same sex relations is recognized officially, at least when it comes to accessing international funding. It seems that Namibian individuals involved in same sex relations and their rights to health in the time of HIV/AIDS can be brought onto the official agenda by international donor pressure.

ceciliastrand@hotmail.com
Contact Phone: +49708771295

PR1.3/1

Retention in opioid substitution treatment (OST) as a major predictor of virological success in HIV-infected drug users receiving antiretrovirals: results from the Manif 2000 cohort

M.Patrizia Carrieri[1], Perrine Roux[2], Julien Cohen[3], Pierre Dellamonica[4], Isabelle Ravaux[5], Bruno Spire[6]
INSERM U912 (SE4S), IRD, ORS PACA, Marseilles France[1 2 3 6], Hopital l'Archet, Nice France[4], Hopital la Conception, Marseil, France[5]

Objectives: The impact of opioid substitution treatment (OST) in HIV-positive opioid dependent individuals is currently known, especially on improving adherence to antiretroviral treatment (HAART). We used longitudinal data from the MANIF2000 cohort of individuals HIV-infected through drug use and receiving both HAART and OST to investigate the role of OST on stable virological success independently from adherence to HAART.

Methods: We used 5-year longitudinal data from the MANIF2000 cohort that enrolled patients in outpatient hospital services delivering HIV care in France. Medical and sociobehavioral data were collected every six months through medical records, face-to-face interviews and self-administered questionnaires. A logistic regression based on generalised estimating equations (GEE) was used to identify predictors of virological success in HAART-treated patients also receiving either methadone or buprenorphine. Stable virological success was defined at any visit as an undetectable HIV viral load for at least 12 months.

Results: Among the 135 patients (539 visits), 38% of patients achieved a stable virological success at least once during follow-up. Median age was 37 years, 74% were men. After multiple adjustment for duration of HAART initiation (>6months), high adherence to HAART (compared to missed doses and treatment interruption) and severe depressive symptoms, uninterrupted duration on OST significantly predicted stable virological success (OR=1.11 per one month increase, p=0.001).
Conclusions: Though further studies are needed to understand whether duration of OST is a proxy of reduced risk of co-occurring infections that can foster HIV viral replication, these results confirm the importance of adequately co-treating HIV and opiod dependence and that OST retention should be promoted as a major objective in HAART-treated patients still dependent on opioids. A wider access to different OST with adequate psychiatric services and psychosocial support is crucial to improve HAART outcomes among IDUs.

Julien.Cohen@inserm.fr
Telephone: +33 4 96102875

Scientific Abstracts - Index of Authors

www.aidsvilnius2009.com

Scientific Abstracts - Index of Abstract Titles

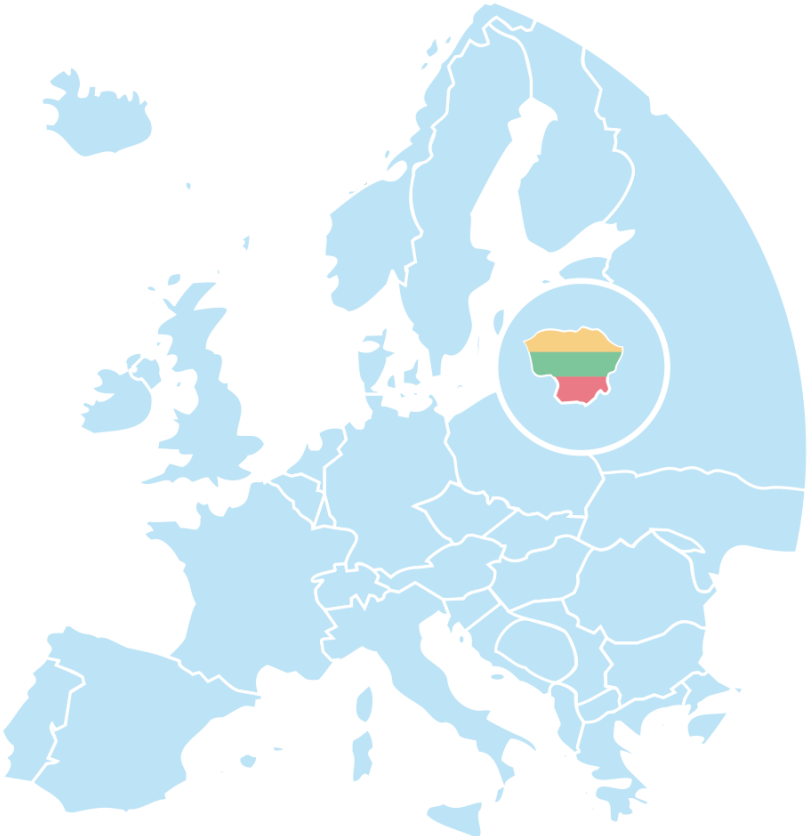
www.aidsvilnius2009.com

This publication arises from the project 5th European Conference on Clinical and Social Research on AIDS and Drugs which has received funding from European Union, in the framework of the Public Health Programme

Health Programme 2008-2013
Together for Health

LIETUVOS RESPUBLIKOS
SVEIKATOS APSAUGOS MINISTERIJA

Organizers:



LIETUVOS AIDS CENTRAS

AIDS and social disease society