

Special Session  
July 26, 2017

*STDs & HIV/AIDS 2017*



**WORLD CONFERENCE ON STDs, STIs & HIV/AIDS**

July 26-27, 2017 | Executive Hotels & Resorts  
Vancouver, Canada

# WORLD CONFERENCE ON STDs, STIs & HIV/AIDS

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## Rustin Crutchley

University of Houston, USA

### Precision medicine in the HIV aging population

Increased availability of one pill-once daily antiretroviral therapy (ART) combinations with greater potency and tolerability has created a dynamic shift in prescribing patterns towards simplification to these newer therapies. In this presentation, we will identify common one pill-once daily ART combinations and most current recommendations for treatment of HIV. In an era of ART simplification encouraged by an armamentarium of better therapies, the HIV aging population is increasing. Given these trends, the prevalence of comorbidities is also increasing in the HIV aging population. One example includes the large HIV Dutch ATHENA cohort projecting a significantly increased prevalence in both the number of comorbidities (especially, cardiovascular disease) and concomitant medications used to treat these comorbidities by 2030. Consequences of polypharmacy include increased pill burden, costs, drug-drug interactions, and adverse effects. In this presentation we will briefly discuss current and future polypharmacy trends in an aging HIV population. Studies show that adherence to ART is improved if HIV patients are taking fewer medications on a daily basis. Although many strategies exist to reduce polypharmacy to ensure sustainable success on ART, one

excellent measure may include precision medicine. In this presentation, we will describe specific examples of how using this personalized healthcare approach can serve importantly in guiding choices in both ART and management of common comorbidities in the HIV aging population. Finally, we will conclude with factors affecting clinical uptake of pharmacogenetic testing and discuss future implications.

#### Speaker Biography

Dr. Crutchley graduated from Duke University in 2001. He then received his doctorate of Pharmacy from the University of North Carolina at Chapel Hill. Dr. Crutchley continued his education further by completing his PGY-1 Pharmacy Practice Residency at the University of Texas at Tyler and his PGY-2 HIV Specialty Residency at the State University of New York at Buffalo. Since then, he has also completed a STAR Health Disparities Fellowship through the University at North Texas Health Science Center at Fort Worth. Dr. Crutchley is currently working as a Clinical Associate Professor at the University of Houston, College of Pharmacy. He works as a HIV clinical pharmacist at Therapeutic Concepts (private adult HIV clinic) and the Retrovirology Clinic at Texas Children's Hospital with HIV-infected children and adolescents. Dr. Crutchley established a new and innovative PGY-2 HIV Ambulatory Care/Clinical Pharmacogenetics Residency Program at the University of Houston. His research interests include complimentary alternative medicine and pharmacogenetic approaches used to improve the quality of life and lifespan of HIV-infected patients.

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# Scientific Tracks & Abstracts

## July 26, 2017

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## HIV stigmatization in Chinese media discourse and responses from people living with HIV in China

Chunbo Ren

Central Michigan University, USA

Mass media plays a crucial role in influencing people's perceptions of certain illnesses and diseases, including HIV/AIDS. Despite the positive role media play in reduce stigma, literature also documented that media could reinforce HIV stigma in media discourse. In China, serious HIV stigmatization has been identified in newspaper coverage of HIV/AIDS. We conducted two quantitative content analysis studies to examine Chinese newspaper articles about HIV/AIDS published in each of the eight Chinese news outlets one week before and one week after World AIDS Day every other year from 2000 to 2010. After the two studies, we conducted study three to explore how people living with HIV (PLHIV) in China responded to HIV stigmatization in media discourse.

Study one showed that Chinese media play two distinct roles in HIV/AIDS reporting. On one hand, Chinese media played an advocacy role by promoting anti-stigma efforts. Nearly one out of every five of these news stories addressed HIV/AIDS stigma by reporting stigma stories experienced by PLWHA or by promoting anti-stigma efforts. On the other hand, study one showed that nearly one out of every three HIV/AIDS news stories contained either overtly or covertly stigmatizing language. The content of these articles indicate that the Chinese media frame HIV/AIDS in stigmatizing terms, even when they discuss anti-stigma efforts. The journalists' selection of metaphors, photos, and terminology serves to further demonize the disease rather than disseminating current medical knowledge about the transmission and treatment of the disease. In addition to overtly stigmatizing language, covertly stigmatizing content was present in more than 10% of all articles included in the study.

Study two extends previous research by exploring how HIV transmission was portrayed in Chinese media discourse, particularly how the media framed HIV transmission for people living with HIV (PLHIV) and affected groups. The results suggest that Chinese newspaper articles label PLHIV and stereotype certain social groups to reinforce an "us versus them" dichotomy. Chinese media promote two different views of PLHIV that are dependent on the manner in

which people contracted HIV. Individuals who contracted HIV through socially acceptable means (e.g., blood transfusion) were worthy of being featured. In contrast, individuals who contracted HIV through socially unacceptable means (e.g., intravenous drug use) were less likely to be identified as individuals and were instead devalued as nondescript members of a deviant and dangerous group. This dichotomy reinforces HIV stigmatization and will mitigate China's anti-stigma efforts.

Study three is a continuation of the first two content analysis studies. Given that it is unknown how PLHIV in China responded to the media's stigmatizing practice, our study three, using a rare opportunity for access, interviewed individuals living with HIV in China, and explored their perspectives on HIV stigmatization in media. Perspectives from PLHIV confirmed the notion that Chinese media tend to reinforce the dichotomous relationship of *health moral us and diseased immoral them*. Specifically, this study found that PLHIV reported that media stories about HIV/AIDS tended to stereotype and overstate threats to the non-affected population, caused PLHIV to curtail their own media consumption, and acted as barriers to seeking adequate healthcare. Stigmatizing news stories may interfere with anti-stigma efforts and creating barriers to better health policies in China. Overall, the findings provide health communication experts and anti-stigma advocates new evidence of HIV stigmatization in the media context.

### Speaker Biography

Ren teaches skills and lecture courses in public relations, including PR principles and practices, PR research methods, PR writing, PR case studies and PR campaigns. He has worked for 10 years in the PR industry, including five years at Weber Shandwick Beijing serving as a senior consultant and later account supervisor for clients with a global presence. His major clients included Pfizer, Bayer Healthcare, Merck, P&G, Novartis, Nestle, BMS, L'Oreal, IKEA, Electrolux, Intel, Ericsson, Juniper Networks and NVIDIA. His research concentration is health communication and mass media processes and effects. His research has consistently focused on strategic health communication approaches to prevent disease and reduce disease-related stigma, particularly HIV/AIDS stigma.

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## HIV/AIDS in Cameroon: Rising gender issues in policy-making matters

**Eseme Nnorge Divine**

Presbyterian General Hospital, Cameroon

This literature review investigated gender differentials in HIV/AIDS in Cameroon and to which extent gender was taken into account in the country's current policy on HIV/AIDS. The review found that in Cameroon women were at increased risk of being infected with HIV/AIDS compared to men and that apart from biological vulnerability,


Socio-cultural as well as economic factors accounted for those differences. In addition, the review found that at the policy level, the government has drawn up plans to reduce the high prevalence of HIV/AIDS among women. However,

although the current policy acknowledged the need for tackling gender differentials in HIV/AIDS transmission; little has been done at the level of implementation. The current policy needs to be implemented in a more effective manner and a multi-sectorial approach should be explored in order to curb the current trend of the feminization of HIV/AIDS in Cameroon.

### Speaker Biography

Eseme nnorge divine currently works at Presbyterian general hospital, Cameroon.

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## Are Sexually Transmitted Infections the neglected orphan in our response to HIV/AIDS, STI and TB (HAST) in South Africa?

Geoffrey Setswe<sup>1,2</sup>, Sigida S<sup>1</sup>, Chauke T<sup>1</sup>, Ramaliba T<sup>1</sup>, Mohlabane N<sup>1</sup> and Lukhele P<sup>1</sup>

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**Introduction:** Every day more than 1 million people are newly infected with STIs that can lead to morbidity, mortality, and an increased risk of HIV acquisition. STIs account for a high proportion of incident HIV infections and are also responsible for a high proportion of adverse pregnancy outcomes. The monitoring of STI prevalence is crucial for the evaluation of STI treatment programs, and can also provide an indirect measure of change in sexual behaviour. There is currently no national approach for monitoring the prevalence of STIs except for HIV and HSV-2. This is despite the fact that STIs accounted for approximately 14% of all new HIV infections in South Africa in 2010 with an estimated 4 million people receiving treatment for STI's every year.

**Design and Methods:** A purposive and targeted search was used to obtain literature from all sources available in the public domain and the grey literature. Information was extracted using an abstraction tool. We conducted a quantitative review of data on STIs.

**Findings and Discussion:** There is a lack of recent data on the extent of STI as the last national survey on STI in the South African public health sector was conducted in 2003 (SANAC, 2014). Johnson et al (2005) said lack of consistency between sentinel surveys precludes a rigorous analysis of trends in STI prevalence. "The last national survey on the quality of STI treatment in the South African public health sector was conducted in 2003" (SANAC, 2014: 57). The proportion of new HIV infections in adults that were attributable to curable STIs reduced from 39% in 1990 to 14% in 2010, while the proportion of new infections attributable to genital herpes increased\*.

Monitoring of syphilis was discontinued in 2011 - this limited the possibility of tracking rapid changes in sexual behaviour for which syphilis is an indicator.

The latest data available on HSV-2 was from the 2012 antenatal survey which found a prevalence of 55.8% among pregnant women in four provinces (KZN, Gauteng, WC and NC). This was the first time HSV-2 prevalence was measured nationally and trend data is therefore not available. Eventhough modelled estimates for females aged 15-49 in 2005 were 54.4%, there were no alarm bells raised for these staggering statistics.

**Conclusion and Recommendations:** There is a considerable need for more research to more accurately map the variations in STI rates, as well as the risk factors underpinning STI spread. This work would benefit from more accurate population-based STI incidence and prevalence data. There is a need for more nationally representative STI prevalence studies in South Africa and more periodic cross sectional studies that can be used to monitor prevalence trends and the success of STI treatment initiatives (Johnson et al, 2005: 291). To maximize HIV prevention efforts in South Africa, public health officials should consider testing for other STIs when they test for HIV. Prepare a National STI strategy to ensure STIs are no longer neglected in our response.

### Speaker Biography

Professor Geoff Setswe is a Deputy Executive Director in the HIV/AIDS, STI & TB Programme. He holds a Doctor of Public Health (DrPH) degree from the University of Limpopo, and obtained a Masters of Public Health (MPH) from Temple University in Philadelphia, USA (1998). His doctorate focused on behavioural interventions for reducing HIV risk among employees. The study provides policy makers and implementers with evidence of behavioural interventions that work to reduce HIV risk among employees in various workplaces. He worked for the HSRC as Chief Research Specialist and Research Director from 2006 to 2010. Prof. Setswe is an expert on the social aspects of HIV and AIDS and on the development of research programs to reduce HIV transmission and the impact of AIDS. He has been principal investigator on more than 12 research projects in HIV/AIDS and public health in the past 8 years. His research interests are in the behavioural and social aspects of HIV/AIDS/TB/STI, AIDS/TB policy, epidemiology and general public health issues.

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## In their own words: Racial/ethnic and gender differences in sources and preferences for HIV prevention information among young adults

Dexter Voisin, Cheng-Shi Shiu, Anjanette Chan Tack, Cathy Krieger, Dominika Sekulska and Lauren Johnson  
The University of Chicago, USA

**Aims:** The purpose of this study was to examine where young adults were obtaining their HIV prevention information, and determine if there were consumption preferences based on gender and race/ethnicity.

**Methods:** We conducted a series of race/ethnic and gender-concordant 2-hour focus groups, and qualitative analyses identified common domains. Sixty adolescents attended 6 focus groups.

**Results:** Findings revealed that primary informational sources were television and advertisements, educational settings, community health care centers, and family and friends. However, television commercials and advertisements were viewed as an ineffective approach, with mistrust of the “mainstream” media being very high for Black males. Recommendations centered on the need for more realistic scenarios related to living with HIV by other adolescents, greater parental involvement with HIV education, especially for minority youth, and the use of social media.


**Conclusion:** Special attention should be given to the importance of social media for adolescents, and how the fear of HIV-related stigma influences HIV information

consumption patterns among males.

### Speaker Biography

Dexter R. Voisin is a Professor in the School of Social Service Administration and a Faculty Affiliate at the Center for the Study of Race, Culture, and Politics and the Center for Health and the Social Sciences. His fields of special interest include community violence exposure, adolescent sexual risk behaviors, the role of gender in adapting to risks, international HIV prevention, and social work practice. Professor Voisin has authored more than 100 peer reviewed publications in such journals as *AIDS*, *AIDS Care*, *AIDS and Behavior*, *AIDS Education and Prevention*, the *American Journal of Orthopsychiatry*, the *American Journal of Public Health*, *Behavioral Medicine*, *Children and Youth Services Review*, *Journal of Epidemiology & Community Health*, *Journal of Adolescence*, among others. Due to his expertise on adolescent sexuality, trauma exposure, and international HIV prevention, he is highly sought after as a peer reviewer and has reviewed articles for various academic journals across many disciplines. His scholarship is recognized as being one of highest cited among Black scholars in top Schools of Social Work. Voisin was appointed a Visiting Professor (summers 2004, 2005, 2007) at the Center for AIDS Prevention Studies in the Department of Medicine at the University of California, San Francisco. In 2010, he was appointed co-editor of the *Journal of HIV/AIDS and Social Services*. He was also appointed a consulting editor for *Social Work: Journal of the National Association of Social Workers* (2003-2008), the *Journal of HIV/AIDS Education and Prevention* (2004-2007), the *Journal of HIV/AIDS and Social Services* (2003 to 2010). In 2012 he was appointed to the editorial boards of the *Journal of Adolescent Health*, *BMC Public Health*, and in 2013 *Social Work Research*. In 2010, he was appointed to the Illinois Statewide Committee for Juvenile Justice Programs, Disproportionate Minority Contact Subcommittee and in 2013 to the Illinois African American Family Commission by the Office of Governor Pat Quinn.

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## Children and Youth Voices about Sex and AIDS and implications for life skills education: Experiences in KwaZulu-Natal in South Africa

Thabisile Buthelezi

University of KwaZulu-Natal, South Africa

The HIV/AIDS epidemic and the complex socio-cultural factors that fuel HIV transmission among many societies in the world have led to governments adopting the multi-pronged and multi-sectorial approaches to deal with the phenomenon (Buthelezi, 2013). In education, the curriculum is identified as an area where HIV/AIDS and sexuality knowledge that is integrated within life skills education is incorporated (World Bank, 2002; Kelly, 2000). In South Africa, the life skills and HIV/AIDS education is included in the National Curriculum policy for schools. The paper foregrounds the primary and secondary school learners' voices, which articulate their experiences of the rural context.

**Methods:** The project, *Ixopo duty-bearers' Project Number One*<sup>1</sup>, was done in the Ixopo rural area of KwaZulu-Natal in South Africa. The qualitative framework was used, and 84 learners (54 primary and 30 high school learners) participated. Having cleared all ethical procedures that helped consolidate trust between the two schools involved in the project and the NGO working in the area, I embarked on the data production process. The qualitative approach; specifically, the arts-based and participatory methodologies were used. The learner participants, aged between 8-19 years wrote stories of their lives through drawings, and textual narratives in dialogue journals. Data from the dialogue journals were analysed qualitatively through open and axial coding, patterning, re-coding, and categorisation until the themes emerged.

**Results And Discussion:** Together the learners expressed narratives of worry, mainly about AIDS related deaths, TB, poverty, sex, and teenage pregnancy that are common in their context. After completing her life story, one learner wrote in big letters, *"The earth is death"* (FP11-13years). This four-word metaphor accurately captures the contents

of almost all dialogue journals, which described in detail the learners' experiences, where the death of family members due to AIDS related conditions is common. When parents die, children experience poverty and abuses including sexual abuses by the remaining relatives. Adult-adult and adult-child sex is prevalent in the community. Learners themselves engage in transactional sex to survive. Then, learners live to worry about getting pregnant.

The absence of relevant support for learners affected and infected by HIV/AIDS leads to depression among learners who, as a result, see death as an option. In the learners' voices, this is reflected as *"I just think of taking the rope and kill myself to have peace."* or *"I wish I should drink poisoned water"* or *"I wish my dead mother comes and fetches me."* Poverty and the ineffective delivery of life skills education exacerbate depression and hopelessness.

**Conclusion:** Problems and challenges facing children in the area are complex; however, theoretically a person is not a subject of his/her environment. In an environment of anti-child culture (van Greunen, 1993), education, particularly life skills education becomes a mediating factor between the child and his/her environment (Buthelezi, 2007). Consequently, the child develops his/her full potential and engages with the environment on personal, cognitive, psychological, socio-economic and constitutional levels, assumes responsibilities for their lives and make the most of life's opportunities.

### Speaker Biography

Thabisile Buthelezi is a qualified nurse, midwife, teacher, and Adult Basic Education Practitioner. She works as an Associate Professor in the School of Education, at the University of KwaZulu-Natal in South Africa. Her teaching and research interests are on Life skills-based and sexuality education, HIV/AIDS in curricula, Education and Society, Language Education, Gender and culture, African languages and social aspects.

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## Combination antiretroviral (cARV) loaded nanoparticles: A potential alternative future for HIV patients

Subhra Mandal and Christopher J. Destache

Creighton University School of Pharmacy & Health Professions, Omaha, NE

**G**lobally, an estimated 37 million people are living with human immunodeficiency virus (HIV)-1. In the United States, > 1.2 million people living with HIV and the most worrisome issue is that among these people, it is estimated that 13 % are unaware of their clinical status, leading to unacceptably high HIV transmission rate. Joint United Nations Programme on HIV/AIDS (UNAIDS) reported the use of antiretroviral drugs (ARVs) has resulted in about 45% drop in death caused by HIV/acquired immune deficiency syndrome (HIV/AIDS). Still (2015 report), about 2.1 million new infections have been reported worldwide, mainly due to high HIV transmission rate and patient's non-adherence to ARVs. Therefore, the focus during formulating novel effective therapeutics should not only be to improve the quality of life of HIV/AIDS infected people but also to reduce the possibility of infection transmission.

The cARVs has enhances the live expectancy of HIV patients, which was once considered to be a uniformly fatal disease. However, daily oral therapy is mandatory to achieve the goal of a nondetectable plasma viral load (pVL) along with a highly motivated, adherent patient. Therefore, cARV therapy faces major challenges including adherence, a daily large oral dose, with associated drug side effects, and economics. Here, cARV nanomedicine could be a potential alternative.


Various surveys on HIV-infected patients reflects that they are enthusiastic about long-acting parenteral nanomedicines. Thus, researchers are actively developing long-acting nanomedicines for HIV-1 prevention/treatment. To improve patient lifestyle and control the epidemic, HIV/AIDS therapeutics research goals for developing new ARV drugs are: potent, non-toxic or with few side effects, small dosages to ensure better adherence, and long-term viral load maintenance. High HIV/AIDS prevalence in areas of underdeveloped and developing countries, therefore cARV should be inexpensive as well as readily accessible to resource-limited countries.

To fulfill above prerequisite, we are formulating cARVs encapsulated polymeric nanoparticle (NPs) as nanodrug delivery system, that shows slow drug release and protects drugs from systemic clearance. Therefore, we predict use of cARV NPs will lead to monthly dosing, that potentially could overcome the adherence burden in the HIV patient. We are the first to report the use of PLGA encapsulated cARV drugs (i.e. TAF+EVG and/ FTC) NPs for prevention/treatment of HIV in a humanized mouse model.

### Speaker Biography

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## Acute HCV and HAV in men having sex with men: An emerging epidemic in the era of highly active antiretroviral therapy

Antonio Mastroianni

Presidio Ospedaliero "G.B. Morgagni-L. Pierantoni", Italy

Men who have sex with men (MSM) are at risk for acquiring hepatitis A virus (HAV), hepatitis B virus (HBV), and hepatitis C virus (HCV) and must be vaccinated at an early age to prevent acquisition of HAV and HBV. Acute HCV and acute HAV infection are frequently a missed or delayed diagnosis bc largely asymptomatic. Fewer than 20% of patients have characteristic symptoms and unexplained elevations in transaminases may be the only laboratory finding.

HCV has been traditionally known to be transmitted parenterally and HAV through fecal-oral transmission from person-to-person contact, while not efficiently transmitted through sexual contact. Since 2000, epidemics of acute HCV infection in HIV-infected MSM have been reported, predominantly in Western Europe, Australia, and the United States. Certain sexual risk behaviors have been hypothesized to be associated with the acquisition of acute HCV infection in this population: unprotected anal intercourse, fisting, enema use, bleeding during intercourse.

Group sex practices and unsafe sexual partices were all associated with acute HCV infection in recent different studies. HAV outbreaks occurred among MSM throughout the world in the 1990s and sexual activity is probably the major mode of transmission among homosexual and bisexual men. Acute HAV infection may have an impact on HIV viral load. The interactions between HIV and HAV may prolong the HAV viremia compared with non-HIV-infected individuals which may result in a prolonged duration of risk of HAV transmission to others, and may also increase the risk of HIV transmission. Some studies suggest that acute hepatitis A may increase HIV-1 viral load that may not return to baseline after infection is resolved. MSM are at increased risk for HAV infection, and risk factors include high number of sexual partners and sexual practices involving oro-anal contact, however limited data suggest low rates of HAV vaccination

in this population, particularly among young MSM. HIV-infected MSM who do not participate in intravenous drug use have essentially the same rate of hcv infection as the general population, however, in the last few years, there have been a number of reports of acute HCV infection due to sexual transmission in the HIV-infected MSM in urban centers in Europe and in the US. Health-care workers often do not ask about risk behaviors during health-care visits, resulting in missed opportunities to vaccinate persons in high-risk groups against HAV and HBV infection. Reciprocal interactions between HIV and HCV or HAV can increase risk of morbidity and mortality in HIV disease and/or worsened the natural course of the hepatitis viruses. Healthcare workers should maintain a high grade of clinical suspicion to identify the transmission risk factors for prevention of reinfection, to recognize HAV and HCV in the acute stage of infection to preventing liver related morbidity and mortality in patients with HIV infection and to decrease the risk of HCV transmission to susceptible hosts. The prevention of HAV and HCV infections in the setting of co-infection with HIV is critical because of reciprocal interactions between the viruses that can lead to an increase risk of morbidity and mortality.

### Speaker Biography

Antonio Mastroianni, M.D, graduated and specialized in Infectious and Tropical Diseases at the University of Bologna. July 1996–May 2017 working as a medical physician specialist in Infectious Diseases & Tropical Diseases with a “High degree in antibiotic and antifungal treatment” at Infectious Diseases Unit of the “G.B.Morgagni – L. Pierantoni”, Hospital,Forli, Italy. June 2017 Director of Infectious Diseases Unit “Annunziata” Hospital, Cosenza, Italy. Master of Tropical Medicine (University of Siena), Master of Diagnostic Pathways and Management of Sexually Transmitted Infections (Bologna, ECCMID), Master of Sepsis & Septic Shock (Univeristy of Milan), Master of Hospital Infections (University of Milan-Bicocca), Master of Tuberculosis (University of Brescia), Master of Pediatric Infections (University of Florence), Master of Infections in Pregnancy (University of Brescia). Mastroianni has authored more than 150 peer reviewed publications in indexed Journals as Clinical Infectious Diseases, AIDS, AIDS Care, Journal of Chemotherapy, Clinical Microbiology & Infection, European Journal of Clinical Microbiology & Infectious Diseases, Journal of Infection.

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# Scientific Tracks & Abstracts

## July 27, 2017

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## Assessment of sex-related behaviours, human immunodeficiency virus (HIV) knowledge and sexually transmitted infections (STIs) among men of reproductive age in Cameroon

Divine Ngakokibang Nsangon

Presbyterian General Hospital Kumba, Cameroon


Sexually transmitted infections (STIs), including human immunodeficiency virus (HIV), are among the major public health challenges in Cameroon. This paper determined the effect of men's sex-related behaviors and HIV knowledge on reported STIs. The data came from the 2012 Cameroon's Demographic and Health Survey (DHS) that were collected from 7191 respondents in 2012. Descriptive and logistic regression methods were used for data analysis. Results showed that majority of the respondents were aware of STIs and Acquired Immune Deficiency Syndrome (AIDS), while 3.96% reported STIs. Also, 49.45% of the men had no wife, while 75.58% and 84.58% noted that condoms and keeping of one partner could be used to prevent HIV transmission, respectively. Wrong impressions that mosquito bites and sharing of food could lead to HIV infection were held by 31.94% and 12.44% of the men, respectively. Among those that reported STIs, 33.33%, 30.18% and 13.33% respectively used condom during sex with most recent partner, second to most recent partner and third to most recent partner, compared to 24.69%, 15.04% and 4.17% among those that did not report STIs. Logistic regression results showed that

probability of STI increased significantly ( $p < 0.05$ ) with condom use with third most recent partners, being married, wrong knowledge that mosquito bites cause HIV and being away for more than one month, while it significantly reduced ( $p < 0.05$ ) with number of children, knowledge that having one partner prevents STIs. It was concluded that policy initiatives and programmes to enhance right sexual knowledge and behavior among men would go a long way in reducing STI incidence in Cameroon.

### Speaker Biography

Divine Ngakokibang Nsangon is the Community Outreach Coordinator for Presbyterian General Hospital Kumba, Southwest Region, Cameroon, where he covers projects and Workshops Regional wide. He holds B.S. and M.S. degrees in Biochemistry from the University of Buea in the Southwest Region. Divine Ngakokibang Nsangon is a registered professional Outreach Coordinator in 5 Divisions in the Southwest Region and has more than 5 years 8 months of experience in Outreach Coordinating and project management. He is a trustee of the Presbyterian Church in Cameroon and former co-chair the HIV/AIDS Sensitization Project of the Presbyterian General Hospital (2013-2015). He is also a member of the Solidarity Health Foundation and past chair of the sensitization of people living with AIDS committee (2015-2016).

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## Interventions to reduce HIV/AIDS stigma: What have we learned?

**Quinta Bih**

Presbyterian General Hospital, Cameroon


This article reviews 22 studies that test a variety of interventions to decrease AIDS stigma in Cameroon. This article assesses published studies that met stringent evaluation criteria in order to draw lessons for future development of interventions to combat stigma. The target group, setting, type of intervention, measures, and scale of these studies varied tremendously. The majority (14) of the studies aimed to increase tolerance of persons living with HIV/AIDS (PLHA) among the general population. The remaining studies tested interventions to increase willingness to treat PLHA among health care providers or improve coping strategies for dealing with AIDS stigma among PLHA or at-risk groups. Results suggest some stigma

reduction interventions appear to work, at least on a small scale and in the short term, but many gaps remain especially in relation to scale and duration of impact and in terms of gendered impact of stigma reduction interventions.

### Speaker Biography

QUINTA BIH is a native of Bamenda Town and has lived in Kumba, Southwest Region since 1990. Since 2008, Quinta has been a Clinical Nurse for Presbyterian General Hospital and she is responsible for the clinical expert, consultant, educator and researcher program at the Presbyterian General Hospital. Her bi-cultural background and focus on community collaboration has led her to a number of volunteer opportunities and community leadership roles. Quinta received her Bachelor of Science in Nursing at University of Buea.

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## Monitoring and managing HIV/AIDS in India

Govindasamy Agoramoorthy  
Tajen University, Taiwan


India holds third rank in AIDS prevalence with over 2 million cases. The country's first case of HIV/AIDS was reported in 1986, and since then the virus has spread across the nation. Both the serotypes one and two occur in India, and the sub-type HIV-1 C is the most common. The disease spread mainly due to sexual transmission. Statistics show that <5% of people in India use condoms for birth control, since the culture dictates that women undergo sterilization or take birth pills. Prostitution plays a key role in disease spreading among heterosexuals in major towns and cities. The National AIDS Control Organization has managed to contain the disease from going out of control. But, healthcare experts are concerned that India does not spend enough funds to

monitor and manage the diseases effectively. Therefore, the government must spend more budget allocation to go all out to combat the diseases from further spreading.

### Speaker Biography

Govindasamy Agoramoorthy is Distinguished Research Professor at College of Pharmacy and Health Care, Tajen University, Taiwan. His research includes multidisciplinary aspects of health sciences. He has carried out field research in Asia, Africa, and South America over three decades. Between 1989 and 1993, he served as Visiting Scientist at Smithsonian Institution, Washington, DC. He is currently Research Advisor at SVYASA Yoga University in India. Professor Agoramoorthy authored 25 books, 60 book chapters, and 250 scientific articles in peer-reviewed journals with impact factor.

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## Recent advances in the Drug discovery of anti- HIV/AIDS agents

Hamed I. Ali

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**H**IV and AIDS remain a persistent problem for the United States. In 2015, 39,513 people were diagnosed with HIV. Since the beginning of the epidemic, nearly 675,000 people with AIDS in the United States have died, and even today, nearly 13,000 people with AIDS in the United States die each year. While great progress has been made in preventing and treating HIV, but challenges remain. These challenges include the current drug resistance and toxicity and unresponsiveness of the treatment to suppress HIV replication in all patients. These challenges incite searching for novel anti-HIV drugs and a new strategy to control the multiple-target viral replication. Likely, the HIV replication cycle offers multiple receptor sites for chemotherapeutic intervention, including the proteases, integrase, reverse transcriptase, cellular ATPase DDX3, viral envelope glycoprotein (gp120), transmembrane glycoprotein (gp41), and viral co-receptors (CXCR4 and CCR5) as a valid anti-HIV targets. Therefore, the use of chemotherapy to suppress replication of HIV has tremendously improved the treatment of AIDS in the last decades. Dual chemotherapy such as cabotegravir and rilpivirine or dolutegravir plus lamivudine which have opened the door to a new treatment paradigm in HIV therapeutics. Furthermore, cell or gene therapy by allogeneic stem cell transplantation have had a resurgence of interest to control the HIV virus which may point towards a future drug-free therapy for HIV-1 infection. The application of the computer-aided drug design (CADD) has become one of the core technologies in the current discovery of the anti-HIV inhibitors. Accordingly, the cost of drug development was reduced by up to 50% and the ADMET properties of the potential anti-HIV inhibitors become feasible. Structural-

based drug design plays a significant role in the current success of discovery of highly selective inhibitors of protease (PR), reverse transcriptase (RT) and/or integrase (IN) of the pol gene of HIV-1. In recent years, computer-based approaches are widely and effectively applied in virtual screening and de novo design of protein-protein interaction inhibitors (PPI) for the discovery of highly active antiretroviral therapy (HAART) against HIV/AIDS. Furthermore, the application of simulation to drug design incorporated with experimental techniques has developed considerable numbers of novel fusion inhibitors, reverse transcriptase inhibitors (RTI), integrase inhibitors (II), and protease inhibitors (PI). Furthermore, the Nanosystems (liposomes, nanoparticles, niosomes, polymeric micelles, and dendrimers) used for HIV therapeutics offer some unique advantage like enhancement of bioavailability, water solubility, stability, and targeting ability of ARV drugs. Currently, the main attention is paid on vaccines are made from deactivated versions of HIV so that HIV can fight with HIV or any other vaccines approaches. The rapid emergence of drug-resistant HIV-1 mutants and serious adverse effects have highlighted the need for further discovery of new drugs and new targets. The problem of drug resistance development due to mutations in HIV-1 proteins targeted by antiviral drugs could be overcome by the development of specific DEAD-box RNA helicase/ATPase DDX3 inhibitors as effective anti-HIV agents..

### Speaker Biography

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 Notes:

Video Presentation  
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*STDs & HIV/AIDS 2017*



**WORLD CONFERENCE ON STDs, STIs & HIV/AIDS**

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# WORLD CONFERENCE ON STDs, STIs & HIV/AIDS

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## Hongyun Fu

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### A tale of two cities - The trajectories of the dual epidemics of illicit drug use and HIV/STIs in Kunming and Qingdao in contemporary China

**Background:** Illicit Drug abuse has been inextricably linked with the epidemics of HIV and other Sexually Transmitted Infections (STIs). The mechanisms and magnitudes of associations have varied over time and across different populations and geographical areas. In China, the early stage of the HIV epidemic was driven mainly by injecting drug use (IDU) starting in the late 1980s in Southwest China bordering the Golden Triangle – one of the three largest heroin production sites in the world. Meanwhile, alarming rates of synthetic drug use (e.g. methamphetamine, ketamine and ecstasy) have been reported particularly among young adults and sexual minority populations, coinciding with high comorbidity of mental health problems, risky sexual behaviors and HIV/STIs. Using data from qualitative interviews with key informants and other secondary resources in Kunming and Qingdao in January/March 2017, this study compares types and patterns of drug use and characteristics of drug users. It also examined the social and environmental contexts in which drug use was frequent to understand the driving forces behind the dual epidemics of illicit drug use and HIV/STIs in contemporary China.

**Methods:** We first compiled and reviewed existing secondary data and published literature on drug use and HIV/STIs in the two cities. Informed by the findings, we designed semi-structured interview guidelines and recruited a diverse sample of 60 key informants (30 respondents each in Kunming and Qingdao), including local drug users (n=18) or their family members (n=2), community rehabilitation center doctors and social workers (n=14), local police (n=11), and taxi drivers or other people who were familiar with local drug use (n=15). Between December 2016 and February 2017, in-depth interviews and focus group discussions were conducted by trained researchers to talk about common drugs used, characteristics of drug users, cultural beliefs and norms related to drug use and sex, social and physical context of drug use sites, and factors related to the variations in drug use prevalence across communities.

**Results:** Preliminary analyses revealed distinctive patterns of drug use between the two cities. In Qingdao, crystal methamphetamine is the single most prevalent drug, while in Kunming, multiple drugs were raised, including heroin, Magu and methamphetamine. Poly drug use is more prevalent, and the use of synthetic drug is on the rise. In both cities, heroin use, which was once the “symbol of fashion” in 1980s and 1990s, was now considered “dirty” and “out of date”, and is used mainly in private by older drug users. Heroin users also occasionally consumed synthetic drugs. Overall, the harm of heroin use had been acknowledged by both the public and drug users, while synthetic drugs were considered more fashionable, or beneficial (help losing weight, be sensational, stay energetic, release pressure, and enhance sexual pleasures) and not (or less) addictive/harmful. In both cities, drug use was more prevalent in low income communities and neighborhoods with high concentration of transient populations. Having family members or friends that used drugs was frequently reported by drug users. The crackdown of police did not seem to prevent/reduce drug use, rather, it drove drug use underground, e.g. from public entertainment venues to more hidden and mobile sites, for example, rental rooms/apartments, private vehicles and secluded places (e.g. suburbs or cemeteries).

**Conclusions and Discussion:** Findings from this study highlighted that group norms and beliefs towards certain drugs, individuals’ social networks, and social contexts play a significant role in shaping individual perceptions about certain drugs and their choice to use drugs as well as the health consequences associated with drug use.

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