I am delighted to be able to share with you this current IUSTI Africa newsletter, which as usual has been put together with care and dedication by Mrs. Aulette Goliath, the Administrative Secretary for our region. I would also like to thank those colleagues who have contributed to the newsletter and, in particular, I would like to express my immense gratitude to both Fernand Guedou (Bénin) and Komivi Aho (Togo) who have translated all the articles into French.

Last year was a momentous year for IUSTI Africa in that we held a successful World IUSTI Congress on African soil. The Cape Town Congress has received much praise internationally for its organization, scientific content and friendly atmosphere. For all those African delegates who came to the Congress, I offer my sincere gratitude for there would have been no meeting without your presence. In particular, it was important to witness the formation of a new IUSTI Africa core team, which I hope will be able to take the regional work of IUSTI to a new level. A full review of the conference’s activities and achievements is contained within this newsletter.

Following a successful 2010 world cup, South Africa was again in the news recently, this time with exciting new findings from the CAPRISA 004 trial. The findings of this tenofovir-based microbicide trial were released at the XVIII International AIDS Conference in Vienna in July. The double-blind placebo-controlled trial compared tenofovir gel with placebo gel in preventing HIV infection in sexually active HIV sero-negative 18-40 year old women in South Africa’s KwaZulu Natal Province. The women were asked to attend monthly follow-up visits for 30 months. The study showed a significant reduction in the incidence of HIV infection in the tenofovir gel arm. Specifically, HIV incidence was 5.6 per 100 women-years in the tenofovir gel arm compared to 9.1 per 100 women-years in the placebo gel arm. Among those who adhered most strongly in terms of gel use, the HIV incidence was 54% lower in the tenofovir arm (p = 0.025). This benefit was greater than that observed through enhanced STI control in the Mwanza study reported in the mid-1990s and is comparable to the effect of reducing the risk of HIV among men seen in the recent South African, Ugandan and Kenyan trials of male circumcision. When the gel adherence was lower, the benefit in terms of reduction of HIV incidence was also lower, emphasizing the importance of high adherence with gel use if the approach is to be successful as an intervention. More studies are required to confirm these findings before this approach can be scaled-up for use as a female-controlled method of HIV prevention for women at high risk.

The CAPRISA 004 trial is a landmark step forward in the fight against STIs and HIV, but the battle goes on and there is still much work to be done!
**Screening for syphilis: Ghana**

**Screening for syphilis during pregnancy in Ghana:**
the role of new rapid point-of-care diagnostic tests

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**Key Points**
- Globally, the annual number of foetal and perinatal deaths from maternal syphilis is greater than the number of deaths of children <15 years from HIV/AIDS. Many babies also suffer serious permanent defects due to congenital syphilis.
- Ghana has experienced a large rise in maternal syphilis prevalence in recent years.
- The existing syphilis screening policy for pregnant women in Ghana has not been widely implemented.
- New rapid point-of-care diagnostic tests for syphilis, which are easy to use with minimal training and equipment, should facilitate implementation of the screening policy.
- Research is needed on the impact, cost-effectiveness and operational aspects of rolling out rapid point-of-care tests in Ghana.

**Background**
Untreated maternal syphilis caused by infection with the bacterium *Treponema pallidum* is responsible for an estimated annual 360,000 foetal and perinatal deaths worldwide. A further 270,000 babies suffer serious permanent defects because of congenital syphilis. This annual mortality level is greater than that for HIV/AIDS among children (age ≤15 years). In addition, syphilis is associated with increased transmission of HIV to sexual partners. Adverse pregnancy outcomes due to syphilis would be entirely preventable if pregnant women were screened and treated with the cheapest available antibiotic, penicillin. This would contribute to addressing the Millennium Development Goals (MDGs) 4, 5, and 6.

Among pregnant women in developing countries, between 1% and 19% test positive for syphilis. In Ghana, the National HIV/STI Sentinel Surveillance has reported a dramatic increase in mean syphilis seroprevalence from 0.4% in 2003 to 6.5% in 2008, with site prevalence ranging from 0% to 30.5% across 40 clinics involving 18,366 antenatal attenders. This large increase in maternal syphilis prevalence is worrying and may be due to an unfolding epidemic of venereal syphilis or the resurgence of yaws (endemic syphilis) in parts of Ghana or could have been artificially caused by a recent change in the surveillance testing algorithms.

**Syphilis screening and treatment policy**
Prenatal syphilis screening policies have been adopted in many African countries, but these are rarely scaled up and sustained for implementation. In Ghana, a policy was developed over 10 years ago to provide routine screening for syphilis to all pregnant women attending antenatal clinics, with those found positive being treated with penicillin, a safe, cheap and widely available drug. However, syphilis screening coverage of pregnant women is still very low in antenatal clinics across Ghana. A study of 210 health facilities in the Ashanti Region found that only 3.3% offered routine prenatal syphilis screening. It is therefore important to identify the barriers and challenges to the implementation of the antenatal syphilis screening policy in the field.

Reasons for poor implementation may include: (i) lack of awareness of the policy among service providers; (ii) lack of training, logistical support, guidelines and protocols; (iii) screening tests requiring refrigeration and skilled laboratory personnel; (iv) late booking of visits to antenatal clinics; and (v) lack of clear monitoring and evaluation indicators and insufficient research to inform programmatic action. Typically, adequate education and training, continuity of screening test kit supplies, consumables and drugs, supervision and quality control are essential for a successful and sustainable maternal syphilis screening programme.

**Diagnostic tests for syphilis**
Most individuals with syphilis are asymptomatic or have transient lesions, so serological (blood serum) tests are the preferred method for detection. Simple and cheap RPR (rapid plasma reagin) or VDRL (Venereal Diseases Research
Screening for syphilis: Ghana

Laboratory) tests that detect cardiolipin antibodies, which are found in cases of acute or recent syphilis, are used for screening and diagnosis. However, these tests are not specific for *Treponema pallidum* and are referred to as non-treponemal tests. They can lead to false-positive diagnoses of pregnant women and unnecessary treatment. In addition, while easy to perform in principle, RPR and VDRL tests require basic facilities (refrigeration and electricity) and some training because of problems with subjective interpretation of test reaction, and should be performed in batches for economic reasons.

As a second step, non-treponemal tests should be confirmed with tests that can detect *Treponema*-specific antigens such as the *T. pallidum* haemagglutination assay (TPHA) or *T. pallidum* particle-agglutination assay (TPPA). These specific tests are not widely available in developing countries since they are laboratory-dependent and require trained personnel, refrigeration for storage of reagents and electricity to run equipment such as a refrigerator, centrifuge and shaker. Generally, health facilities in rural areas are not equipped to handle blood samples so these are transported to regional or central facilities for testing, or patients are referred to such facilities. Test results are therefore only available days or weeks later and specimens can be lost in the process, so it is common that patients do not return for or get their results in time for treatment. This may lead to adverse clinical outcomes, continued transmission of infection and wasted resources. The testing algorithm for surveillance in Ghana prior to 2004 was to screen with RPR or VDRL and confirm with TPHA. However, this was recently changed to use a simpler and rapid *Treponema*-specific diagnostic point-of-care (POC) test, which however cannot distinguish between *Treponema* species causing syphilis or yaws.

**New approaches to syphilis screening**

The new generation of rapid POC tests can be performed outside the laboratory and do not require equipment or electricity. They present as individual plastic cassettes, are simple to use and more objective to read, with minimal training. In addition, they can use whole blood from a finger prick as well as serum or plasma, and results are available within 15 minutes. POC tests use specific treponemal antibody detection methods to screen for syphilis. These tests have been shown to be highly sensitive and specific, giving reliable and reproducible results, even when performed by health personnel with minimal training in a range of clinical settings. POC tests offer an unprecedented opportunity to provide screening to pregnant women at all levels of the health service, as well as the chance to increase screening coverage and reduce pregnancy losses and infant mortality due to untreated syphilis.

However, in comparison to non-treponemal tests, POC tests cannot distinguish between active and past-treated infections, which may limit their usefulness in areas with high syphilis or yaws prevalence (such as some areas in the Central, Eastern and Ashanti regions), or when patients need to be screened repeatedly, as in successive pregnancies. Therefore, assessment of their impact and cost-effectiveness in eliminating congenital syphilis through scale-up programmes is recommended by the World Health Organization’s STD Diagnostics Initiative (SDI). Research is warranted in Ghana, where the Ghana Health Service has embarked on a revamped programme to control maternal syphilis using POC tests, but where endemic treponemal infections also coexist.

*Congenital syphilis can be prevented by screening pregnant women*
Research needs
In order to strengthen the maternal syphilis screening programme in Ghana, the following research needs are highlighted.

Epidemiology
- Describe the local epidemiology of syphilis in Ghana such as syphilis seroprevalence and its associated morbidities
- Determine whether variations in syphilis prevalence are associated with syphilis-related adverse pregnancy outcomes
- Measure the impact of maternal syphilis on pregnancy outcomes

Maternal screening
- Identify and understand the barriers to maternal syphilis screening, from policy to service provision, including experience from service providers and clients
- Evaluate the operational performance of current maternal syphilis screening and treatment strategies
- Evaluate screening and treatment coverage of maternal syphilis using new point-of-care diagnostic tests compared to current screening strategies at the primary care level
- Determine the cost-effectiveness of using point-of-care diagnostic tests
- Monitor long-term reduction of infant mortality and other adverse pregnancy outcomes

Useful resources

This report is an output from a programme funded by the UK Department for International Development (DFID) through the Research Programme Consortium on Sexual Reproductive Health and HIV.

ICASA 2011 in Ethiopia
16th International Conference on AIDS and STIs in Africa (ICASA)
December 4 – 8, 2011—Addis Ababa, Ethiopia

The Federal Democratic Republic of Ethiopia is honored to announce that the next ICASA conference will be held in 2011 in Addis Ababa, Ethiopia.

ICASA provides a forum for exchange of experiences and lessons learned in HIV prevention and treatment from Africa and around the world. The conference will pull together thousands of individuals working to prevent new HIV infections through a combination of prevention, care and treatment interventions in Africa. It will provide an opportunity to share lessons and experiences gained in evidence-based responses against HIV/AIDS and sexually transmitted infections (STIs) in Africa.

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The female condom (FC) was enthusiastically welcomed in 1992 as the first female-initiated method for both pregnancy and disease prevention. Since 2006, different types of FCs have become available or are in development to lower cost and/or improve acceptability. New designs of FCs are made from latex, synthetic latex and polyurethane are available in some countries now or are still in the development stage and will be available within the next five years.

**Female condoms available to date**

**The Polyurethane female condom**

The first FC made by the Female Health Company (FHC), is known as Reality ® and is now also referred to as the FC Female Condom ® or the FC1 and is marketed under various brand names. This FC is made from polyurethane which is odourless, rarely causes allergic reactions, and, unlike latex, may be used with both oil-based and water-based lubricants. The FC1 has two flexible rings, one at the closed end of the condom that is used to insert the device and helps keep the condom in place during sex. A ring at the open end of the condom stays outside the vagina, lies flat across the genital area and ensures the condom stays in place; it is 17 cm in length when unrolled.

This condom received approval from the US Food and Drug Administration (USFDA). It also has European Union Approval and the CE Mark. The intention of the FHC is to gradually replace this device with the synthetic nitrile FC2 condom which is discussed in the next section.

**The FC2 female condom**

was also developed by the FHC and became available in some countries in 2005. The CE Mark has been awarded and FC2 completed the technical review process by WHO in 2007; WHO has approved FC2 for bulk purchases by all UN agencies. The FC2 was approved by the US FDA in 2009.

The FC2 is similar in specification, function and appearance to the original Reality polyurethane condom but is made of synthetic rubber (nitrile) latex. Synthetic latex is a strong material and the performance and acceptability of FC2 is comparable to the polyurethane FC1. The lower cost of the material makes this FC cheaper to produce. Current price is around two-thirds of the cost of a polyurethane condom.

**The VA w.o.w Condom Feminine®Female Condom**

The VA w.o.w (worn of women) FC, also known as the Reddy female condom, is made of latex and encases a sponge at the closed end of the condom. The outer anchoring structure which stays outside the vagina is in the form of a triangular shaped frame. The sponge is used for insertion and the condom is 90mm in length. The VA FC has received EU approval and carries the CE Mark. This FC does not have WHO or USFDA approval yet. The VA condom is currently available in some African countries and Brazil and is marketed in these countries under the L’amour brand. It comes lubricated with silicone oil but can only be used with other water based lubricants.
Panty condoms

Panty female condoms are condoms that are secured in a panty. The panty performs the same function as the outer ring or frame of the other FCs mentioned earlier. The panty is reusable and the new condom is inserted and secured into the panty and removed after use. There are two panty type condoms available at present. The Natural Sensations panty condom made of polyethylene is a re-usable thong panty with replaceable condoms. It is available in Panama, Costa Rica, Dominican Republic, Venezuela and Spain and has CE registration. The Silk Parasol panty condom (Janesway) is of a similar design with refill condoms purchased separately. These condoms are more expensive than the non-panty type FCs and are less available. These condoms are not approved by WHO or the USFDA.

Cupid female Condom

The Cupid female condom made by Cupid Ltd, manufacturers of male condoms, is made from latex with a foam sponge for insertion. The outer frame is octagonal. This condom comes in a natural and a pink colour and is 155 mm in length. It is one of the newest FC products and is currently only available in India.6

Female condoms in development

The PATH Woman’s Condom is currently under development. It is made of urethane and inserts like a tampon with a dissolving cap made of PVA (polyvinyl alcohol similar to C-film). The body of the condom is tucked into the cap which dissolves after insertion. It is non-lubricated and can be used with both oil and water based lubrication or with none, depending on the users preference. It will be marketed with a sachet of silicone lubrication. This condom was developed with a user-driven process, evaluated by couples in 4 countries for key acceptability parameters such as ease of insertion, comfort, sensation and stability. Acceptability trials have shown the PATH Women’s condom to be acceptable to users. It is being transferred to a Chinese manufacturer in 2008, and it is anticipated that the final design will move forward for WHO and USFDA approval in the next 2 years.

References:

1. Female Health Company. FC and FC2 Female Condoms: http://femalehealth.com/Product%20FC%20Details1.htm
2. Female Condom Technical Review Committee: who.int/reproductive-health/publications/fc2/fc2report.pdf
5. Medtech products -VA w.o.w female condom: Medtechproducts.net
6. Cupid Female Condom: http://www.cupidltd.com/
Human papillomaviruses (HPVs) are one of the most important causes of sexually transmitted infections in both men and women worldwide because of their association with anogenital cancers. Apart from cervical cancer, HPV is also the most common causative agent of genital warts and other squamous intraepithelial lesions (SIL). There are more than 100 HPV subtypes including 40 anogenital types based on partially and fully sequenced DNA fragments. At least 16 high-risk (oncogenic) HPV types, such as HPV 16, 18, 31 and 45, are implicated in cervical cancer. Low-risk HPV subtypes, such as HPV types 6 and 11, are responsible for more than 90% of genital warts and 10% of low grade cervical abnormalities. Cervical cancer is the most common cancer in women in South Africa (35/100,000 women) and the second most common cancer in women worldwide. There is an estimated global incidence of 470,000 cases of cervical cancer per year with about 233,000 deaths. Developing countries accounted for almost 80% of all cervical cancer cases worldwide in 2002 and 80%-85% of cervical cancer deaths occurred in women from these regions (Figure 1). Cervical cancer is a leading cause of death among black women in South Africa who are at an increased risk of acquiring cervical cancer compared to white women and are 2.5 times more likely to succumb to the disease. In 2000, the South African National Department of Health recognised cervical cancer as a national health priority and introduced a national cervical screening policy. This policy allows women attending public sector services three free Papanicolaou (Pap) smears in their lifetime 10 years apart, starting at the age of 30. A study conducted by Clifford et al. (2005) demonstrated that the HPV prevalence was also approximately five times higher in sub-Saharan Africa than in Europe, with an intermediate prevalence in South America and Asia.
There are currently two non-infectious recombinant prophylactic HPV vaccine options (Table 1). Both vaccines are prepared from highly purified virus-like particles (VLPs) of the major capsid (L1) protein of the respective HPV types. The first HPV vaccine, called Gardasil® (Merck & Co.), is a quadrivalent vaccine which targets HPV types 6, 11, 16 and 18. A second, similar prophylactic HPV vaccine, known as Cervarix™ (GlaxoSmithKline) was approved and registered with the Medicines Control Council (MCC) early in 2008. This bivalent vaccine was specifically developed by GSK to prevent infection and lesions from HPV types 16 and 18. Both Gardasil® and Cervarix™ protect against the two types responsible for over 70% of cervical cancer cases and approximately 50% of high-grade cervical abnormalities. Gardasil® has the additional benefit of providing protection against genital warts, which are very costly to manage due to a high case-load, particularly in countries with a high HIV prevalence, and can significantly reduce the quality of life.

Both vaccines are very safe, well-tolerated and effective and have demonstrated efficacy of more than 80% against persistent HPV types 16 and 18 infection after 3 doses of HPV vaccine. Harper et al. (2006) reported that antibody levels dropped by about one log between the peak after the third dose and 18 months after vaccination and then leveled off conferring adequate antibody levels for at least 5 years post vaccination. The vaccine efficacy for precancerous lesions caused by HPV types 16 and 18 was 98% for Gardasil® and 90% for Cervarix™. The Gardasil® vaccine also demonstrated 97% efficacy against vulvar and vaginal intraepithelial neoplasias caused by HPV types 16 and 18 and 96% protection against genital warts. No data are available on the cross-protective effect of the Gardasil® vaccine although some cross-protection was observed for the Cervarix™ vaccine (HPV types 45 (60%), 31 (36%) and 52 (32%)).

Table 1: Characteristics of the two HPV vaccines

<table>
<thead>
<tr>
<th>Variable</th>
<th>Gardasil®</th>
<th>Cervarix™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer</td>
<td>• Merck &amp; Co.</td>
<td>• GlaxoSmithKline Inc.</td>
</tr>
<tr>
<td>VLPs of genotypes</td>
<td>• 6, 11, 16, 18</td>
<td>• 16, 18</td>
</tr>
<tr>
<td>Substrate (antigen expression system)</td>
<td>• Yeast</td>
<td>• Baculovirus</td>
</tr>
<tr>
<td>Adjuvant</td>
<td>• Proprietary aluminium hydroxyphosphate sulfate (225µg)</td>
<td>• Proprietary aluminium hydroxide (500µg) plus 50 µg 3-deacylated monophosphoryl lipid A</td>
</tr>
<tr>
<td>Dose and schedule</td>
<td>• 0.5 mL intramuscular injection at 0, 2 and 6 months</td>
<td>• 0.5 mL intramuscular injection at 0, 1 and 6 months</td>
</tr>
<tr>
<td>Duration of immune response</td>
<td>• 96% seropositive to HPV types 6, 11 and 16 at 24 months • 68% seropositive to HPV type 18 at 24 months</td>
<td>• 100% seropositive to HPV types 16 and 18 at 51-53 months</td>
</tr>
<tr>
<td>Persistent infection from HPV types 16 and 18†</td>
<td>• Vaccine efficacy 93.5% (95% CI 83%-98%)</td>
<td>• Vaccine efficacy 80.4% (95% CI 70%-87%)</td>
</tr>
<tr>
<td>CIN (2 or higher) related to HPV types 16 and 18</td>
<td>• Vaccine efficacy 98% (95% CI 93%-100%)</td>
<td>• Vaccine efficacy 90.4% (95% CI 53%-99%)</td>
</tr>
<tr>
<td>VIN and VaIN (2 or higher) related to HPV types 16 and 18</td>
<td>• Vaccine efficacy 97% (95% CI 79%-100%)</td>
<td>• No data</td>
</tr>
<tr>
<td>Protection against genital warts</td>
<td>• Vaccine efficacy 96% (95% CI 86%-99%)</td>
<td>• No data</td>
</tr>
</tbody>
</table>

Note: CI = confidence interval; VLPs = virus-like particles; CIN = cervical intraepithelial neoplasia; VIN = vulvar intraepithelial neoplasia; VaIN = vaginal intraepithelial neoplasia

† = Persistent infection was defined as 4 months in the Gardasil trial and as 6 months in the Cervarix trial.
HPV Vaccine prospects: South Africa

The HPV Advisory Board of South Africa suggested some recommendations for the implementation of HPV vaccines in South Africa (Table 2)\(^\text{20}\). HPV vaccination should be offered to females up to the age of 26 during the vaccine roll-out period on an ad-hoc basis. Current recommendations suggest that vaccination must be determined for each individual population but ideally girls should be routinely vaccinated before the age of sexual debut. The suggested age for HPV vaccination is 11-12 years but this could be as low as 9-10 years at the discretion of the physician. Harries et al (2009) conducted in-depth interviews at policy, health service and community levels in the Western Cape Province to determine key challenges and barriers towards HPV vaccine introduction. The majority of respondents felt that the age of vaccination should begin at the lower end of the age range due to the high levels of sexual abuse and violence in South Africa\(^\text{21}\). Older women will only benefit from vaccination if they want to prevent new HPV infections. The efficacy of the vaccines in preventing anogenital cancers among men has not yet been established and vaccination in this population is not currently recommended. Vaccinating men could indirectly protect non-immunized women by reducing the transmission of HPV by increased herd immunity. However, at this stage such an intervention will not be a cost-effective option.

Table 2: HPV vaccination recommendations from the HPV Advisory Board of South Africa\(^\text{20}\)

<table>
<thead>
<tr>
<th>Recommendations for implementation of HPV vaccines in South Africa</th>
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<tbody>
<tr>
<td>• All girls in the population should be immunized at ages 9-12.</td>
</tr>
<tr>
<td>In early years of the programme: “Catch up” vaccination of girls up to 20 or 26 years: after 20 years surveillance is indicated.</td>
</tr>
<tr>
<td>• Give 3 doses at months 0, 2 and 6; no boosters offered (no supporting literature to suggest boosters).</td>
</tr>
<tr>
<td>• Offer to survivors of rape and sexual violence.</td>
</tr>
<tr>
<td>• Continue with cervical screening as per policy.</td>
</tr>
<tr>
<td>• Boys are not the target of cervical cancer prevention and should not be vaccinated as a first step.</td>
</tr>
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</table>

Generally, it takes between 10-20 years from the time a new vaccine is licensed until it is distributed in the public health sector in developed countries\(^\text{22}\). Due to the natural history of HPV-induced cervical cancer, it will also take approximately 20 years until a vaccine-induced protective effect is clearly demonstrated. This effect will only become apparent once the vaccine is introduced on a large scale in the public sector, where cervical screening and treatment options are currently restricted. HPV vaccines have already been endorsed by the private sector and there has been widespread support in the media and government, however, the cost-effectiveness of implementing an HPV vaccination strategy in South Africa will be challenged by the high prices of the vaccines\(^\text{21}\). In South Africa, the vaccine could cost approximately R2 100 for three intramuscular 0.5 mL injections at 0, 2 and 6 months\(^\text{20}\). The estimated costs and benefits from vaccination should be compared to those of other interventions. The magnitude of benefit in South Africa would be great considering the high incidence, mortality and treatment costs of disease caused by HPV 6, 11, 16 and 18. The greatest benefit of HPV vaccination in South Africa would be the potential reduction in cervical cancer deaths. However, a coverage rate of over 70% would be needed to have a significant impact on cervical cancer incidence\(^\text{20}\). It is unclear as to the impact HIV-related immunosuppression will have on protective efficacy of both HPV vaccines in countries with a high HIV prevalence. It is estimated that about 300 000 South Africans should be vaccinated each year, adding up the cost to about R630 million per year. It may be possible to negotiate a realistic vaccine price once HPV vaccination has been adopted by the Government as a national public health policy. Even if a vaccination program was to be implemented the current recommended cytological screening of one smear every 10 years, starting at age 30, should still continue and Government should investigate alternative screening strategies such as HPV DNA testing.

References

Mr. Jacob Zuma, the President of South Africa, made a number of pledges in respect of national HIV/AIDS policies on World AIDS Day on the 1st December 2009. One such pledge was for the country to embark on a large-scale national HIV Counselling and Testing (HCT) Campaign under the leadership of the South African National AIDS Council (SANAC) and the National Department of Health (NDoH).

The campaign commenced in April and aims to test 15 million people, aged 12 years and older, by June 2011 and put South Africa on path to meet its national targets to reduce new infections by 50% and provide treatment to 80% of people in need by 2011.

The campaign will try to induce positive behaviour change among the population, encouraging individuals and communities to take responsibility for their health by knowing their HIV status.

The objectives of the HCT campaign are to mobilize people to know their status, to support people with key prevention messaging in order to encourage them to take proactive steps towards a healthy lifestyle, to increase the incidence of health seeking behaviour and to increase access to treatment, care and prevention services.

Figure 1. The HIV counselling and testing will take place all over South Africa
HIV Counselling and Testing (HCT) : South Africa

Although the campaign will be co-ordinated by the NDoH and SANAC, it will also be supported by a number of initiatives from several non-governmental organisations (NGO) and the private sector. As just one example, the Treatment Action Campaign (TAC), so instrumental in campaigning for better healthcare for people living with HIV over the past decade, will for example provide HCT messaging to at least 730,000 people through various initiatives. The HCT campaign will be promoted through posters, magazine, media and radio interviews. Condoms will be distributed in a number of easy-to-access venues such as taxi ranks, hair salons and schools. Door-to-door campaigns will take place at the community level, consisting of condom distribution and HCT education.

The national launch for the HCT Campaign took place on Sunday, 25 April 2010 at Natalspruit Hospital in Ekurhuleni, Gauteng Province. The State President, Minister of Health, national Ministers and Provincial MECs, as well senior leaders of Government Departments and civil society sectors were in attendance. Provincial launches subsequently took place on Friday, 30 April 2010 under the leadership of Provincial Premiers and Provincial Councils on AIDS (PCA). During the following months, the campaign has focused intensively on all 52 health districts in the country as determined by provincial capacity.
The Government of the Republic of Zambia, through the Central Statistical Office and the Ministry of Health, National AIDS Council, and the University of Zambia, and with technical assistance from MEASURE Evaluation, recently conducted the 2009 national Zambia Sexual Behaviour Survey, the fifth in a series of such household surveys to monitor knowledge, attitudes, and behaviors regarding HIV/AIDS in Zambia.

The main objective of the survey is to obtain national estimates of a number of key indicators important to monitoring progress of the national HIV/AIDS/STDs programme. The survey provides indicators on HIV/AIDS/STI-related knowledge, attitudes, and sexual behaviour, as well as information on orphans and vulnerable children, and assistance to households and communities affected by the HIV/AIDS pandemic. The 2009 survey provides national estimates that can be disaggregated by residence (rural/urban), age groups (adolescents, youths, young adults and adults), and by sex (males, females).

The household response rate for the 2009 survey was 93% and respondents had to be 15 years and older. HIV/AIDS knowledge was almost universal in Zambian adults, as exemplified by the facts that 99% of adults had heard of HIV/AIDS and about 95% of respondents in both urban and rural areas knew HIV/AIDS could be avoided (an increase from 81% in 2000). The proportions of respondents who spontaneously mentioned the ABCs of HIV prevention had decreased since the 2005 survey. Although over 80% of respondents recognized that consistent condom use was a means to prevent HIV transmission, only 45% of women and 53% of men indicated that condoms were “very effective”. Several respondents still accepted common misconceptions about HIV being transmitted by mosquitoes (36%), witchcraft (36%) or sharing food (21%).

Overall, the proportion of respondents who expressed negative judgments toward people living with HIV/AIDS (PLWHA) declined from 33% in 2005 to 25% in 2009. Similar declines were seen in youth aged 15-24, although the proportion expressing stigma, negative judgments and lack of acceptance towards PLWHA was still high (24% males, 28%
The proportion of respondents who knew where to go to get an HIV test increased from 84% to 94% from 2005 to 2009. Although improved from the 13% reported in 2005, the proportion tested remains low with only 46% of 2009 survey respondents reporting a previous test. The proportion of females who tested for HIV during antenatal care in the past 2 years increased from 14% in 2005 to 67% in 2009.

The median age of first penetrative sexual intercourse among 15-24 year olds was 19.5 years for males and 17.5 years for females, and, compared to the 2000 survey results, suggests that youth are delaying the onset of penetrative sexual activity. The proportion of overall respondents aged 15-49 reporting multiple partners declined from 9% in 2000 to 4% in 2009. Males had more multiple partners (9%) than females (<1%). Among those with multiple sexual partners in the past year, 87% were concurrent partnerships, with higher proportions observed in rural (90%) compared to urban (81%) settings. About 42% of males and 35% of females reported condom use at their last sexual encounter. Among 15-19 year olds, more females (41%) than males (30%) have had sex. Over the past 9 years, there has been a decline in the number of youth reporting first onset of sexual activity below 15 year of age (17%, 2000 survey; 8%, 2009 survey). The proportion of young people aged 15-24 years old engaging in sex with a non-regular partner increased while condom use with a non-regular partner decreased. Sex with non-regular partners was reported more frequently among young men than young women (72% vs. 28%).

About 26% of female respondents in urban areas and 20% in rural areas reported ever being forced to have sexual intercourse against their will. Most perpetrators were either live-in partners (44%) or boyfriends (27%). About 17% of females had practiced dry sex during the past 12 months, a practice that was more common in the rural (21%) than urban (10%) areas.

In terms of sexually transmitted infections (STIs), respondents’ knowledge remained high as with previous surveys, with knowledge being higher in urban compared to rural areas. However, the proportion who knew at least one STI symptom in men or women declined compared to the 2005 survey. Compared to 2000, there was a decline in the overall proportion of respondents who reported recent symptoms of an STI (specifically, genital discharge or ulcer) from 4% to 2%, respectively. The decline was primarily seen in the urban areas and remained constant in the rural areas at 3%. Analyzing the trend by gender revealed less men, particularly in the urban areas, reported STI symptoms in 2009 whereas the proportion of women with STI symptoms had increased slightly in the same time period, more so in the rural areas.

The 2009 survey may be accessed in full at http://www.cpc.unc.edu/measure/publications/tr-10-73
Integrating routine HIV testing and counselling in the management of sexually transmitted infections: Lighthouse experience in Lilongwe Malawi

Dr. Sam Phiri
Executive Director – Lighthouse Centre, Lilongwe Malawi

Introduction:
Sexually Transmitted Infections (STIs) have been shown to facilitate HIV acquisition and transmission therefore STI case management is a tool for HIV biomedical prevention intervention. The Malawi national (STI) guidelines include HIV Testing and Counseling (HTC) in STI Syndromic Case Management. However, there are operational challenges in health facilities to implement this nationwide due to infrastructure and human resource challenges. At one of the urban public health hospital (Bwaila Hospital) in Lilongwe, only 43% of the STI clients who were referred to HTC received HIV testing before June 2009. HTC was provided in a different building from where STI case management was being provided. To address the gap, Lighthouse integrated HTC services in the management of sexually transmitted infections at Bwaila Hospital in accordance with the National STI Treatment Guidelines in one building. The Lighthouse is a centre of excellence for integrated HIV prevention, treatment, care and support based in Lilongwe. Services are implemented at Lighthouse at Kamuzu Central Hospital and Martin Preuss Centre at Bwaila Hospital. As of 31st March, 2010, the centre had 12,206 patients alive on the life saving antiretroviral drugs (ARVs)

Methods:
STI clinical case management is provided by the Lilongwe District Health service providers while HTC is provided by the Lighthouse dedicated lay counselors. The two teams have been integrated to form an STI case management team. From June 2009, Lighthouse placed the lay HTC counselors (non medical) in the STI clinic at Bwaila Hospital. All STI patients were sensitised on the benefits of HTC using a standard Group Pre-Test Education (GPTE). As part of their STI case management, all STI patients were directed into an HTC room within STI clinic for the test. STI patients were given opportunity to “opt-out”. Soon after testing and counselling, patients were sent back into the clinic rooms to complete the STI case management and HIV positive individuals referred for ART or other support services at Martin Preuss Centre.
Integrating routine HIV testing: Lilongwe, Malawi

Results:
Between June and November 2009, a total of 4,738 STI patients were registered at Bwaila STI clinic of which 223 (5%) already knew their HIV serostatus before they came to the clinic. A total of 4,218 (89%) underwent HTC of which, 972 (23%) tested HIV positive. All the HIV positive patients were referred to Martin Preuss for Pre-ART and ART assessment, initiation and follow up.

Lessons learnt:
The proportion of STI patients with a known HIV status is still very low despite the incorporation of HTC in the 2008 STI case management guidelines for Malawi. The integration of HTC services in the management of STIs within the same facility increases HTC uptake. A referral mechanism should be put in place for HIV positive STI patients to access HIV care services.

Acknowledgement:
I acknowledge Denis Ndau, a Lighthouse focal person for the HTC services among STI patients, the entire Lighthouse Group, Lighthouse financing partners and Lilongwe District Health Office team for their commitment and dedication to innovations for integrated HIV prevention, treatment, care and support in Malawi.
THE 11TH IUSTI WORLD CONGRESS 2009

Introduction
The 11th World Congress of the International Union against Sexually Transmitted Infections (IUSTI) took place on the Waterfront in Cape Town, South Africa, at the Nedbank (formerly the Board of Executives) building from 9th to 12th November 2009. This is the first IUSTI meeting in Africa for 10 years and focused on both traditional STIs and HIV from clinical, public health, behavioural and laboratory aspects.

Conference Organising Team
The conference was organised and chaired by Professor David Lewis of the Sexually Transmitted Infections Reference Centre, National Institute for Communicable Diseases, National Health Laboratory Service, South Africa (Figure 1). The scientific programme was organised by Professor David Lewis and Professor Christopher Fairley, University of Melbourne and Director of the Melbourne Sexual Health Centre, Australia. Dr. Janet Wilson, Leeds General Infirmary, United Kingdom assisted with fund raising. The operational aspects of the congress were organised by Sue McGuinness Communications, Johannesburg, South Africa.

Opening Ceremony
The opening ceremony took place on the evening of Monday 9th November, at which Dr. Francis Ndowa (WHO HQ, Geneva) discussed the global burden of STIs (Figure 2) followed by the opening lecture, given by Professor David Mabey from the London School of Hygiene and Tropical Medicine (Figure 3). Professor Mabey presented an overview on what we have learnt from STI/HIV research in Africa.
Following the scientific part of the opening ceremony, the delegates were treated to a performance of African drumming and Zulu dancing (Figure 4). The IUSTI World President, Professor Angelika Stary (Austria) officially opened the congress by firing a cannon on the site of the old Dutch city walls (Figure 5).

Scientific Programme
On the opening day of the congress, the IUSTI North America branch delivered a half day update course on STI/HIV with four internationally respected US-based scientists presenting on a variety of topics. The course was organised by Professor Charlotte Gaydos, Regional Director for IUSTI North America.

In total, there were 7 plenary lectures, 44 symposium talks in 13 themed symposia, 11 symposium talks in 4 satellite symposia, 48 oral presentations and 139 posters. The plenary sessions covered rapid diagnostic tests for STIs, prevention of mother to child transmission of HIV, biological drivers of the HIV epidemic, sexual networks and the internet, male circumcision, HIV vaccines and how to use information technology (IT) in novel ways to improve STI/HIV clinical practice.

The symposia covered STI/HIV in men-who-have-sex-with-men, STI bacterial typing, STI/HIV public health interventions, HIV treatment approaches, condoms, STI/HIV behavioural interventions in Africa, roll out of rapid tests for syphilis screening of pregnant women, updates in STIs and IT, challenges to effective STI syndromic management, HPV vaccination and HPV clinical disease, commercial sex work, STI treatment as a component of HIV prevention, and finally IUSTI global challenges. The congress concluded with a closing lecture by Professor King Holmes from the University of Washington (Seattle, USA) on emerging multi-component STI/HIV prevention strategies (Figure 6).

Three satellite symposia took place on the opening day of the congress, organised and supported by Abbott Molecular, Siemens Healthcare Diagnostics and the Public Health Agency of Canada. These three symposia covered challenges and new approaches in managing STIs, innovations for infectious diseases management and sexual health promotion. In addition, a fourth satellite symposium on congenital syphilis, organised by the CDC Global AIDS Programme in South Africa, was presented on the last morning of the congress.
Scholarship Fund
Approximately $240,000 was raised through the generous support of the following institutions: Office of AIDS Research at the National Institutes of Health ($100,000), PEPFAR funding through the South African Office of the Global AIDS Programme of the Centers for Disease Control and Prevention ($100,000), The World Health Organisation ($15,000), The Wellcome Trust (£10,000), GenProbe ($3,000), the Society of the Study of Sexually Transmitted Diseases in Ireland (1,000 euros) and a private donation of $5,000. The criteria for awarding scholarships included support for participating speakers and poster presenters from resource-poor countries as well as review of personal motivation letters received from individuals wishing to attend the meeting as a delegate. These $240,000 funds were used to support the attendance of 118 delegates and speakers.

IUSTI World Executive Board Meetings
Pre- and post-conference IUSTI World Board Meetings were held at the Board of Executives Building on the 8th and 12th November. These meetings were well-attended with over 90% of board members present. The Board was able to successfully carry out its business and discussed forthcoming events planned for the next 4 years in the various IUSTI Regions (Figure 7). Three new IUSTI Africa members were elected to the Board to fill vacant positions for African regional delegates, namely Professor Aissatou Gaye-Diallo (Senegal, Regional Chairperson), Dr. Sam Phiri (Malawi) and Professor Sax Sarkodie (Ghana) (Figure 8).

In addition, an IUSTI World General Assembly took place on 11th November, at which Professor Angelika Stary (Austria) ended her 4 year term as IUSTI World President. Professor King Holmes (USA) took over as the next World President and Dr. Raj Patel (UK) was elected as the President Elect (Figure 9).

Figure 7:
Professor David Lewis (IUSTI Africa Regional Director, South Africa) and other board members at the IUSTI World Executive committee meeting.

Figure 8:
The Congress saw the election of three new IUSTI-Africa representatives on the IUSTI World Executive committee (from left to right, Sam Phiri, Malawi; Aissatou Gaye-Diallo, Senegal; Sax Sarkodie, Ghana).

Figure 9:
Professor Angelika Stary (Austria) thanking the General Assembly for their support of her 4 year term as President and announcing the election of Dr. Raj Patel (UK), on her left, as IUSTI World President Elect.
IUSTI Africa held a regional meeting on Tuesday 10th November, which was well attended with about 50 African delegates present (Figure 10). A number of useful ideas were put forward to the Regional Director in relation to activities that IUSTI should pursue within the region. Key areas included enhancement of STI/HIV regional training and empowering of Africans to undertake research to allow them to improve their chances of presenting data at international conferences.

The IUSTI 2009 World Congress was strategically held in Africa in order to assist with the building up of the IUSTI Africa regional network. In addition to the appointment of three African STI/HIV specialists to the IUSTI World Executive Board, an IUSTI Africa core team was established to enhance the work of IUSTI within the Region.

The core team held its first meeting during the congress. Core team members include Professor David Lewis (South Africa, IUSTI Africa Regional Director), Professor Aissatou Gaye-Diallo (Senegal, IUSTI Africa Chairperson), Dr. Sam Phiri (Malawi, IUSTI board member), Professor Sax Sarkodie (Ghana, IUSTI board member), Dr. Nda Ushewokunze (Zimbabwe, core team Secretary), Dr. Komivi Aho (Togo), Dr. Nejib Doss (Tunisia), Professor Hortensia Faye-Kette (Cote d’Ivoire), Dr. Fernand Guedou (Benin), Professor John Masenga (Tanzania) and Dr. Pierre Yassa (Zambia) (Figure 11).

The core team has equal representation of English- and French-speaking members, and it is planned to find and recruit two Portuguese-speaking members in 2010. This strong regional team will extend the influence of IUSTI in the African Region and will develop a strategic workplan in 2010 for the next 2 years.

The IUSTI 2009 World Congress was essential to bring these key people together and for the establishment of the core team.
IUSTI 2009 Congress Dinner

The gala dinner took place at Moyo’s restaurant at the Spier Wine Estate near Stellenbosch, about 30 minutes bus journey from Cape Town. Before the meal commenced, speakers were given a private viewing of the Cheetah outreach programme run on the Spier site (Figure 12). The gala dinner was supported by GenProbe (USA). A variety of food from all corners of the African continent was available at the buffet and African dancers and a marimba band entertained the delegates. Approximately 400 people attended the gala dinner (Figure 13). It provided a good opportunity for networking and appreciation of African culture.

Prizes were awarded, with support from MSD (South Africa), for the best oral and poster presentations at the 11th IUSTI World Congress (Figures 14 and 15).

Final comments

The 11th IUSTI World Congress met its main objectives which was to bring people together from all five IUSTI Regions to discuss the latest STI/HIV research findings, to renew old and to develop new professional friendships, and to empower young clinicians, researchers and other health professionals in the continued fight against STIs and HIV through a better understanding of STI/HIV interactions, multi-component HIV prevention strategies and the challenge of reducing risk of STI/HIV infection attributed to sexual behaviour.
Joint WHO and CDC consultation on the strategic response to the threat of untreatable Neisseria gonorrhoeae and emergence of cephalosporin resistance in Neisseria gonorrhoeae

Prof. David Lewis, IUSTI Regional Director

This consultation, to address the issue of antimicrobial resistance in Neisseria gonorrhoeae, was held at the WHO Regional Office for the Western Pacific (WPRO) in Manila, the Philippines, from 7-9 April 2010. Representatives from Africa included Dr. Benoît Soro (STI Regional Adviser, WHO-AFRO), Dr. Amina Hançali (STD Laboratory, National Institute of Hygiene, Morocco) and Professor David Lewis (IUSTI-AFRICA Regional Director, STI Reference Centre, National Institute for Communicable Diseases, South Africa)

The issue of antimicrobial resistant gonorrhoea was brought into sharp focus during a previous WHO consultation on STI management guidelines held in Montreux, Switzerland in April 2008. At that meeting, it was noted that available data indicated an increasing gonococcal resistance to, and treatment failures with, several drugs currently used for the treatment of gonorrhoea, including the ‘last line’ oral cephalosporins. However, there is a general lack of reliable antimicrobial resistance data for N. gonorrhoeae globally, which in turn means that there is inadequate knowledge of the extent of spread of antimicrobial resistant gonococci and of all the mechanisms that are responsible for this resistance. Procedures exist for enhancing antimicrobial resistance surveillance which, if coordinated and enhanced, can provide significant insights and necessary information for standardized and cost-effective treatments. Optimization of treatment for N. gonorrhoeae is closely linked to disease control efforts and reductions in associated morbidity.

The recent consultation in Manila was informed by work currently ongoing with the WHO Gonococcal Antimicrobial Surveillance Programme (GASP), which includes (i) enhancement of the antimicrobial resistance mapping facility, (ii) development of WHO Surveillance Standards for surveillance of antimicrobial resistant gonorrhoea at regional and country level, (iii) technical and other advice on antimicrobial resistant N. gonorrhoeae generally and specifically on antimicrobial resistance surveillance. The consultation also took into account work carried out by other similar programmes such as the Gonococcal Resistance to Antimicrobials Surveillance Programme (GRASP) in the UK, the Gonococcal Isolate Surveillance Project (GISP) in the USA, and the International Collaboration on Gonococci (ICG).

The consultation focused on the processes of implementing a global response to the threat of antimicrobial resistance in N. gonorrhoeae. The participants shared country and agency experiences of monitoring emergence of antimicrobial resistance and elaborate plans for a response to the threat of untreatable gonococcal infections, including an early warning system to detect emergence of cephalosporin resistance N gonorrhoeae. The international group also assessed the implications of resistance to treatment of gonococcal infections.

In terms of outcomes, a detailed outline of a global Plan of Action to respond to the threat of untreatable N. gonorrhoeae will be developed, adaptable to regional specificities, covering sustainable surveillance, laboratory requirements, epidemiological support needed and programmatic responses to decreasing in vitro susceptibility and treatment failures.

During the meeting, the consultation, the WHO celebrated World Health Day and the WPRO tradition on this day includes a shared pot-luck lunch consisting of the staff’s various national dishes (Figures 1). Participants at the consultation were invited to join WHO colleagues in a special pot-luck lunch.

Acknowledgement:
This article has been prepared based on the information provided to delegates by the WHO/CDC secretariat.
It is my privilege, as the new President of ISSTDR and chair of our next conference, to invite you to join us in Quebec City, Canada, for the 19th Conference of the ISSTDR in July 2011.

The scientific programme will include keynote and plenary lectures, invited-speaker sessions on selected topics, parallel oral and poster sessions and scientific symposia. It will comprise five tracks: Epidemiology, Social and Behavioural Aspects of Prevention, Clinical Sciences, Basic Sciences, and Health Services and Policy.

The Congress will take place in the Québec City Convention Centre located in the heart of the city across from the Parliament Building, where Québec’s National Assembly has been sitting for over 120 years, and just a few steps from tourist attractions and over 100 restaurants specializing in French and international cuisine.

Finally, we will take care of organising a memorable social programme, which will be supported by the fantastic environment provided by Quebec City, the oldest city of North America, with a special mix of European and North American culture and the presence of numerous exciting events during the summer.

The organising committee hopes you will join us and I look forward to meeting you all in Quebec City in July 2011.

For more information visit: www.isstdrquebec2011.com
Online membership registration on the website www.iusti.org

There are three types of membership for IUSTI- AFRICA:

a) Full Membership of IUSTI-AFRICA is open to individuals who have a professional interest in the study, prevention and control of sexually transmitted infections. A medical qualification is not a requirement for full membership. Full membership of IUSTI requires a nominal fee of 40 EUROs every 2 years. Full members of the union will be entitled to the privileges of membership, which include a reduction in registration fees at most IUSTI regional and world meetings. The membership fee has been set so that it will be attractive to anyone who participates regularly in IUSTI events. We anticipate that any member who attends at least one meeting every two years would re-coup their membership dues.

Full members will also receive a substantial discount of 40% on a subscription to the Union’s official journal, the International Journal of STD and AIDS. Subscribers also benefit from free access to the online version of the journal and archive dating back to 1996. To find out more about the journal visit http://www.rsmpress.co.uk/std.htm. To subscribe at the special IUSTI rate visit http://www.rsmpress.co.uk/specialoffers/iusti.htm or call the journals subscriptions department on +44 (0) 207 2902927/8.

Moreover, the database of full members will be available in an edited form to the World Health Organization (WHO) and on the web for individuals seeking to recruit experts to assist as advisers etc. in specialist STI work.

b) Associate membership of IUSTI-AFRICA is open to individuals who would like to maintain a corresponding link with the IUSTI-Africa network. Associate membership is FREE and not linked to the payment of any membership dues. Associate members may participate in meetings of the Union without voting rights. As an Associate member of IUSTI-Africa, you will continue to receive the IUSTI-Africa Newsletter.

c) Organisational Membership of IUSTI-AFRICA is also open to organizations, such as national organisations for the study of sexually transmitted diseases. The membership fee for organisations is 200 EUROs every two years.

Suggestions, Comments, Feedback ...

We welcome your suggestions and feedback on the newsletter. Please direct your comments to the:

Administrative Secretary at iusti-africa@nicd.ac.za