

## *HIV This Week*: what scientific journals said

Welcome to the forty-first issue of *HIV This Week*! In this issue, we cover **structural determinants and vulnerability** (why overcoming food insufficiency is key to HIV prevention in Botswana and Swaziland; income inequality, poverty, HIV and development: understanding and acting on upstream and downstream effects), **resources/impact/development** (parental HIV: what does it do to kids in northern Malawi; using a shallow rent subsidy program to prevent homelessness among people living with HIV), **HIV testing** (did CDC consider the costs and consequences of its recommendations for opt-out testing?; why Botswana leads the way in HIV testing uptake), **serostatus disclosure** (when should kids learn their status?; relationships, disclosure, and risk reduction among men who have sex with men: much still to learn), **epidemiology** (promising decade long HIV incidence declines for sex workers and men in sexually transmitted infection clinics in Pune, India; the new consensus on survival and AIDS mortality in low-and middle-income countries; Haiti has the oldest sub-type B epidemic and did HIV enter the USA by 1970?), **paediatric treatment** (synergies: trimethoprim-sulfamethoxazole and insecticide-treated bednets for Ugandan children living with HIV), **men who have sex with men** (concerning increases in HIV, syphilis, hepatitis C, and hepatitis B prevalence along with risk behaviour among men who have sex with men in Beijing, China), **gender** (transactional sex with casual and main partners is linked to gender-based violence in the rural Eastern Cape, South Africa), **positive prevention** (if HIV care providers can't talk about sex, who can?).

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### **1. *Structural determinants and vulnerability***

Weiser S, Leiter K, Bangsberg D, Butler L, Percy-de Korte F, Hlaze Z, Phaladze N, Lacopino V, Heisler M. Food Insufficiency is Associated with High-Risk Sexual Behaviour among Women in Botswana and Swaziland. *PLoS Med.* 2007;4(10):1589-97

Both food insufficiency and HIV infection are major public health problems in sub-Saharan Africa, yet the impact of food insufficiency on HIV risk behaviour has not been systematically investigated. We tested the hypothesis that food insufficiency is associated with HIV transmission behaviour. We studied the association between food insufficiency (not having enough food to eat over the previous 12 months) and inconsistent condom use, sex exchange, and other measures of risky sex in a cross-sectional population-based study of 1,255 adults in Botswana and 796 adults in Swaziland using a stratified two-stage probability design. Associations were examined using multivariable logistic regression analyses, clustered by country and stratified by gender. Food insufficiency was reported by 32% of women and 22% of men over the previous 12 months. Among 1,050 women in both countries, after controlling for respondent characteristics including income and education, HIV knowledge, and alcohol use, food insufficiency was associated with inconsistent condom use with a non-primary partner (adjusted odds ratio [AOR] 1.73, 95% confidence interval [CI] 1.27-2.36), sex exchange (AOR 1.84, 95% CI 1.74-1.93), intergenerational sexual relationships (AOR 1.46, 95% CI 1.03-2.08), and lack of control in sexual relationships (AOR 1.68, 95% CI 1.24-2.28). Associations between food insufficiency and risky sex were much attenuated among men. Food insufficiency is an important risk factor for increased sexual risk-taking among women in Botswana and Swaziland. Targeted food assistance and income generation programs in conjunction with efforts to enhance women's legal and social rights may play an important role in decreasing HIV transmission risk for women. **Editors' notes: Insufficient food to meet daily needs and infection with HIV are major causes of death in southern Africa. Good nutrition is essential for a strong immune system. Protecting and promoting access to food can act on the socio-behavioural plain to reduce HIV exposure and on the biological plain to both reduce the risk of becoming infected if exposed and to maintain good health for longer once infected. Supporting women's subsistence farming and enhancing their control over their food supplies as well as their sexual lives are key steps to improving their resilience to HIV.**

Piot P, Greener R, Russell S. Squaring the Circle: AIDS, Poverty, and Human Development. *Plos Med.* 2007;4(10):1571-5.

It is often asserted that AIDS is at the core of a "vicious circle" whereby the impacts of AIDS increase poverty and social deprivation, while poverty and social deprivation increase vulnerability to HIV infection. In examining this view, it is important to distinguish between the "downstream" effects of AIDS on poverty, and the "upstream" effects of poverty upon the risk of acquiring HIV. Understanding these interactions is vital to the development and implementation of effective strategies to prevent and treat HIV. Six elements are key to an effective, sustainable response. First, AIDS money has the most impact when strategies are based on the concept of "know and act on your epidemic". UNAIDS' *Practical Guidelines for Intensifying HIV Prevention* provide practical guidance to tailor national HIV prevention responses so that they respond to the epidemic dynamics and social context of the country and each populations who remain most vulnerable to HIV infection. Second, a growing number of small-scale activities indicate the value of combining HIV programmes with poverty reduction initiatives. The challenge now, however, is to make the shift from small-scale projects to large-scale programmes. Third, the provision of HIV treatment can help prevent poverty—and indirectly contribute to HIV prevention as well—by helping to break down stigma. Access for the poor to HIV treatment and prevention services requires action to increase investment in antiretroviral treatment—by both national and international funders;

reduce the cost of antiretroviral drugs; improve HIV service delivery systems; and provide better services for the poor. Fourth, development plans (whether they concern the development of productive sectors or the provision of social safety nets) must "pass the AIDS test", contributing to HIV prevention and treatment in the communities they work in. Fifth, both poverty reduction programmes and AIDS strategies must reduce vulnerability to HIV— particularly for women and young people. Doing so involves protecting human rights and tackling issues around social marginalization and stigma. Sixth, addressing AIDS in the world's poorest countries and communities depends on increased and sustained international support, driven by high-level political will. Complex problems famously require complex solutions. In this case, it is crucial to place AIDS squarely at the centre of all socio-economic development, and provide long-term, high-level domestic and international investment in HIV prevention and treatment in the world's poorest countries. **Editors' notes: Economic and gender inequalities along with weakened social cohesion are key influences on sexual behaviour and risk of HIV transmission. The clear pattern of associations between the level of income inequality measured by the Gini coefficient and HIV prevalence in sub-Saharan Africa speak to the need to improve governance in general as well as strengthen the AIDS response.**

## **2. Resources/impact/development**

Floyd S, Crampin AC, Glynn JR, Madise N, Mwenebabu M, Mnkondia S, Ngwira B, Zaba B, Fine PE. The social and economic impact of parental HIV on children in northern Malawi: Retrospective population-based cohort study. *AIDS Care* 2007;19:781-90.

From population-based surveys in the 1980s in Karonga district, northern Malawi, 197 'index individuals' were identified as HIV-positive. 396 HIV-negative 'index individuals' were selected as a comparison group. These individuals, and their spouses and children, were followed up in 1998-2000. 582 of 593 index individuals were traced. 487 children of HIV-positive, and 1493 children of HIV-negative, parents were included in analyses. Rates of paternal, maternal, and double orphanhood among children with one or both parents HIV-positive were respectively 6, 8, and 17 times higher than for children with HIV-negative parents. Around 50% of children living apart from both parents had a grandparent as their guardian; for most of the rest the guardian was an aunt, uncle, or sibling. There were no child-headed households. Almost all children aged 6-14 were attending primary school. There was no evidence that parental HIV affected primary school attainment among children <15 years old. Children of HIV-positive parents were less likely to have attended secondary school than those of HIV-negative parents. The extended family has mitigated the impact of orphanhood on children, but interventions to reduce the incidence of orphanhood, and/or which strengthen society's ability to support orphans, are essential, especially as the HIV epidemic matures and its full impact is felt. **Editors' note: Although it is encouraging that primary school enrolment in Malawi is not measurably affected by parental HIV infection, effects are being seen on secondary school attendance. The diminishing horizon of education and employment prospects for many orphans then limits the opportunities for their own children - the next generation. Counteracting these intergenerational effects can preserve social capital and social cohesion and build resilience to HIV.**

Dasinger LK, Speigman R. Homelessness prevention: the effect of a shallow rent subsidy program on housing outcomes among people with HIV or AIDS. *AIDS Behav* 2007;26(2):128-139.

This paper presents results of an evaluation of Project Independence (PI), a shallow rent subsidy program with services coordination support for very low income people with HIV or AIDS who live in Alameda County in the San Francisco Bay Area. By providing a small rental subsidy to eligible individuals and their families who are already stably housed, the philosophy of the program is to prevent homelessness before it starts. The housing outcomes of 185 PI clients were compared to those of 218 people who were not enrolled in the program but were presumed eligible for it, controlling for sociodemographic, HIV disease, and behavioural health characteristics. Using survival analysis techniques, non-program participants were found to be more likely to leave their rental housing at any given point in time compared to PI program participants. After one year of follow-up, while 99% of PI clients remained stably housed in their program-subsidized rental unit, only 32% of comparison group clients were still in rental housing. At two years, 96% of PI participants remained independently housed, compared to only 10% of non-participants. The success of the program suggests that Project Independence should be replicated and evaluated in other jurisdictions where a relatively high incidence and prevalence of HIV is combined with a lack of affordable housing for low income households. **Editors' note: HIV infection can become impoverishing as it progresses. Those who are on very low incomes are particularly vulnerable to losing their housing. This intervention of a small rental subsidy was an investment which reaped large dividends for fully 96% of the 185 participants who received it. Two years later they were still stably housed - an effective mitigation tool addressing a social consequence of being poor and having HIV infection.**

### **3. HIV testing**

Holtgrave DR. Costs and consequences of the US Centers for Disease Control and Prevention's recommendations for opt-out HIV testing. *PLoS Med* 2007 4:e194.

The United States Centers for Disease Control and Prevention (CDC) recently recommended opt-out HIV testing (testing without the need for risk assessment and counselling) in all health care encounters in the United States (US) for persons 13-64 years old. However, the overall costs and consequences of these recommendations have not been estimated before. In this paper, Holtgrave estimates the costs and public health impact of opt-out HIV testing relative to testing accompanied by client-centred counselling, and relative to a more targeted counselling and testing strategy. Basic methods of scenario and cost-effectiveness analysis were used, from a payer's perspective over a one-year time horizon. The author found that for the same programmatic cost of US\$864,207,288, targeted counselling and testing services (at a 1% HIV seropositivity rate) would be preferred to opt-out testing: targeted services would newly diagnose more HIV infections (188,170 versus 56,940), prevent more HIV infections (14,553 versus 3,644), and do so at a lower gross cost per infection averted (US\$59,383 versus US\$237,149). While the study is limited by uncertainty in some input parameter values, the findings were robust across a variety of assumptions about these parameter values (including the estimated HIV seropositivity rate in the targeted counselling and testing scenario). While opt-out testing may be able to newly diagnose over 56,000 persons living with HIV in one year, abandoning client-centred counselling has real public health consequences in terms of HIV infections that could have been averted. Further,

Holtgrave's analyses indicate that even when HIV seropositivity rates are as low as 0.3%, targeted counselling and testing performs better than opt-out testing on several key outcome variables. These analytic findings should be kept in mind as HIV counselling and testing policies are debated in the US. **Editors' note: This is the kind of analysis that should have underpinned the policy decision by CDC to change its recommendations on HIV testing. It underscores not only that opt-out testing without counselling misses an important opportunity for opening a dialogue about HIV prevention, but that it is more costly and has less public health impact than targeted client-centred counselling and testing in concentrated epidemics. A different conclusion would likely be reached if the cost-effectiveness analysis focused on non-targeted offering of HIV testing and counselling to all patients in resource-limited settings experiencing substantially higher HIV prevalence.**

Cockcroft A, Andersson N, Milne D, Mokoena T, Masisi M. Community views about routine HIV testing and antiretroviral treatment in Botswana: signs of progress from a cross sectional study. *BMC Int Health Hum Rights* 2007;87:5.

The Botswana government began providing free antiretroviral therapy (ART) in 2002 and in 2004 introduced routine HIV testing (RHT) in government health facilities, aiming to increase HIV testing and uptake of ART. There have been concerns that the RHT programme might be coercive, lead to increased partner violence, and drive people away from government health services. Cockcroft and colleagues conducted a household survey of 1536 people in a stratified random sample of communities across Botswana, asking about use and experience of government health services, views about routine HIV testing, views about ART, and testing for HIV in the last 12 months. Focus groups further discussed issues about ART. Some 81% of respondents had visited a government clinic within the last 24 months. Of these 92% were satisfied with the service, 96% felt they were treated with respect and 90% were comfortable about confidentiality. Almost all respondents said they would choose a government clinic for treatment of AIDS. Nearly one half (47%) thought they were at risk of HIV. Those who had experienced partner violence within the last 12 months were more likely to think themselves at risk. One half of those who had visited a government facility in the last 24 months were offered HIV tests, and nearly half were tested. A few (8%) of those who were not asked thought they were tested. Most people (79%) had heard of routine HIV testing and 94% were in favour of it. Over one half (55%) of the entire sample had been tested for HIV within the last 12 months, one half of these through RHT. Women were more likely to have been tested. Nearly everyone (94%) had heard of ART and thought it could help AIDS. Focus groups identified problems of access to ART due to distance from treatment centres and long queues in the centres. Public awareness and approval of RHT was very high. The high rate of RHT has contributed to the overall high rate of HIV testing. The government's programme to increase HIV testing and uptake of ART is apparently working well. However, turning the tide of the epidemic will also require further concerted efforts to reduce the rate of new HIV infections. **Editors' note: It is important to clarify what is meant by the term 'routine HIV testing'. In the Botswana context, it is clearly intended as a routine offer not a routine test since half of those offered the test decided not to take it up at the time it was offered. Botswana's approach of offering testing in government health facilities has high community acceptance and has helped normalise knowledge of serostatus - an important step in reducing stigma and increasing the effectiveness of prevention for both those found positive and those found negative. It**

facilitates timely initiation of prophylaxis and treatment for opportunistic infections for people with HIV infection and antiretroviral treatment for those who need it if it can be made widely and conveniently available.

#### 4. *Serostatus disclosure*

Lesch A, Swartz L, Kagee A, Moodley K, Kafaar Z, Myer L, Cotton M. Paediatric HIV/AIDS disclosure: towards a developmental and process-oriented approach. *AIDS Care* 2007;19:811-6.

As antiretroviral therapy becomes more widely available in low-resource settings and children with HIV live for longer periods, disclosure of HIV diagnosis to infected children is becoming increasingly important. This article reviews the current literature on HIV-related disclosure in light of theories of cognitive development, and argues for the adoption of a process-oriented approach to discussing HIV with infected children. Disclosure presents unique challenges to healthcare workers and caregivers of children with HIV that include controlling the flow of information about the child's HIV status to him/her and deciding on what is in his/her best interest. Health care workers' and caregivers' views regarding disclosure to children may often be contradictory, with healthcare workers likely to support disclosing the diagnosis of HIV to children and caregivers more reluctant to discuss the disease with them. There is a clear need for practical interventions to support paediatric HIV disclosure which provide children with age-appropriate information about the disease.

**Editors' note: Decisions about when and how to disclose HIV status to a child need to consider the evolving capacity of children to understand about HIV infection and their socio-psychological readiness for learning their status. Understandably, caregivers may want to delay disclosure even when a child could take the information on board. Discussions between caregivers and healthcare workers are important to coming to agreement on tailoring the timing, manner, and content of disclosure to the child's situation. The goals are mutual: supporting the child's positive adaptation to the news and his or her engagement to stay healthy.**

Klitzman R, Exner T, Correale J, Kirshenbaum SB, Remien R, Ehrhardt AA, Lightfoot M, Catz SL, Weinhardt LS, Johnson MO, Morin SF, Rotheram-Borus MJ, Kelly JA, Charlebois E. It's not just what you say: relationships of HIV disclosure and risk reduction among MSM in the post-HAART era. *AIDS Care* 2007;19:749-56.

In the post-HAART era, critical questions arise as to what factors affect disclosure decisions and how these decisions are associated with factors such as high-risk behaviours and partner variables. Klitzman et al interviewed 1,828 HIV-positive men who have sex with men (MSM), of whom 46% disclosed to all partners. Among men with casual partners, 41.8% disclosed to all of these partners and 21.5% to none. Disclosure was associated with relationship type, perceived partner HIV status and sexual behaviours. Overall, 36.5% of respondents had unprotected anal sex (UAS) with partners of negative/unknown HIV status. Of those with only casual partners, 80.4% had >1 act of UAS and 58% of these did not disclose to all partners. This 58% were more likely to self-identify as gay (versus bisexual), be aware of their status for <5 years and have more partners. Being on HAART, viral load and number of symptoms were not associated with disclosure. This study - the largest conducted to date of disclosure among MSM and one of the few conducted post-HAART - indicates that almost one fifth reported UAS with casual partners without disclosure, highlighting a public health challenge. Disclosure needs to be addressed in the context of relationship type, partner status and broader risk-reduction strategies. **Editors' note: Disclosure is difficult**

for many people, not the least those who have learned their status more recently and who only have casual partners. This study of men who have sex with men reveals that being on treatment and viral load are not influencing decisions to disclose or not whereas other factors such as relationship type clearly are. Lack of disclosure combined with unprotected anal sex fuel ongoing transmission among men who have sex with men. Qualitative action oriented research to help people create solutions that work for them is needed.

## 5. *Epidemiology*

Mehendale SM, Gupte N, Paranjape RS, Brahme RG, Kohli R, Joglekar N, Godbole SV, Joshi SN, Ghate MV, Sahay S, Kumar BK, Gangakhedkar RR, Risbud AR, Brookmeyer RS, Bollinger RC. Declining HIV Incidence Among Patients Attending Sexually Transmitted Infection Clinics in Pune, India. *J Acquir Immune Defic Syndr*. 2007;45(5):564-9.

A recent report suggesting declining HIV transmission rates in southern India has been based on HIV seroprevalence data to estimate HIV incidence. We analyzed HIV incidence rates among 3 cohorts (male, female non-sex worker, female sex worker [FSW]) presenting to sexually transmitted infection (STI) clinics in Pune, India over 10 years. Between 1993 and 2002, consenting HIV-uninfected individuals were enrolled in a prospective study of the risks for HIV seroconversion. Standardized HIV incidence estimates were calculated separately for the 3 cohorts. RESULTS: HIV acquisition risk declined by more than 70% for female sex workers (P = 0.02) and men (P < 0.001) attending the STI clinics. There was no significant reduction in HIV incidence among women attending STI clinics (P = 0.74). The decline in HIV acquisition risk among male patients with STIs was associated with an increase in reported condom use with recent female sex worker contact and a decrease in genital ulcer disease. We report the first direct evidence for a decline in HIV incidence rates in FSWs and male patients with STIs over time. The lack of change in HIV infection risk among non-sex worker women highlights the need for additional targeted HIV prevention interventions. **Editors' note: Many estimates of incidence are based on HIV prevalence data. Here is concrete cohort-derived evidence of declines in HIV incidence over a 10 year period which are associated with increased condom use in commercial sex transactions - a 70% decline for sex workers and men attending sexually transmitted infection clinics. Reduced genital ulcer disease likely played a contributing role. Changing the conditions under which sexual services are bought and sold, by making condom use the norm, creates significant impediments for HIV and interrupts chains of transmission.**

Ghys P, Zaba B, Prins D. Survival and mortality of people infected with HIV in low- and middle-income countries: results from the extended ALPHA network. *AIDS* 2007;21(suppl 6):S1-S4

Published at a time when antiretroviral treatment (ART) is rapidly being scaled up in most low- and middle-income countries, this paper introduces a collection of papers representing a major collaborative effort to quantify and analyse the survival from HIV seroconversion to death in the absence of ART. The advent of effective treatment means it will not be possible to conduct any further studies of this nature in the future, so the results from these analyses together with a small number of previously published survival studies will serve as a baseline against which to assess the impact of ART in low- and middle-income countries. In addition, this new information is important for deriving parameters to model HIV epidemics. These joint analyses suggest that the survival of people infected with HIV in low- and

middle-income countries is broadly similar to survival in developing countries before ART became available, and that the survival functions are closer than previously believed. Based on the new evidence the UNAIDS Reference Group on Estimates, Modelling and Projections recommended that, for the purpose of modelling national epidemics, the assumption about average net survival in most low- and middle-income countries be changed from 9 years to 11 years, and be kept at 9 years in countries where subtype E is dominant. The new survival assumption has resulted in lower estimates of numbers of new HIV infections and AIDS mortality in many countries, and this is reported in the 2007 AIDS Epidemic Update report. This constitutes an example of the rapid incorporation of new evidence in the methodology for HIV infection and AIDS mortality estimates. **Editors' note: Estimates of the burden of HIV infection, morbidity, and mortality that are used to keep track of the evolution of the epidemic need to be based on research findings. This supplement presents the new evidence that was rapidly incorporated into the estimation methods and assumptions which underpin the latest UNAIDS/WHO estimates. The latest estimates are on the UNAIDS website at [www.unaids.org/en/HIV\\_data/2007EpiUpdate/default.asp](http://www.unaids.org/en/HIV_data/2007EpiUpdate/default.asp)**

Gilbert MT, Rambaut A, Wlasiuk G, Spria TJ, Pitchenik AE, Worobey M. The emergence of HIV/AIDS in the Americas. *Proc Natl Acad Sci U S A*. 2007;104(47):18566-70

HIV-1 group M subtype B was the first HIV discovered and is the predominant variant of AIDS virus in most countries outside of sub-Saharan Africa. However, the circumstances of its origin and emergence remain unresolved. Gilbert and co-authors propose a geographic sequence and time line for the origin of subtype B and the emergence of the HIV pandemic out of Africa. Using HIV-1 gene sequences recovered from archival samples from some of the earliest known Haitian AIDS patients, the authors found that subtype B likely moved from Africa to Haiti in or around 1966 (1962-1970) and then spread there for some years before successfully dispersing elsewhere. A "pandemic" clade, encompassing the vast majority of non-Haitian subtype B infections in the United States and elsewhere around the world, subsequently emerged after a single migration of the virus out of Haiti in or around 1969 (1966-1972). Haiti appears to have the oldest HIV epidemic outside sub-Saharan Africa and the most genetically diverse subtype B epidemic, which might present challenges for HIV-1 vaccine design and testing. The emergence of the pandemic variant of subtype B was an important turning point in the history of AIDS, but its spread was likely driven by ecological rather than evolutionary factors. Based on their results, Gilbert and co-authors suggest that HIV-1 circulated cryptically in the United States for ~12 years before the recognition of AIDS in 1981. **Editors' note: Because of its 40 year history, the HIV-1 epidemic in Haiti exhibits a greater range of viral genetic diversity than the rest of the world's subtype B strains combined, much in the same way that the Democratic Republic of Congo does for group M as a whole. Haitian subtype B appears to exhibit antigenic properties distinct from those of pandemic subtype B which should be considered in vaccine development based on subtype B. Amazingly, this type of analysis suggests that HIV-1 was circulating in one of the world's most medically sophisticated settings in the world for more than a decade before AIDS was recognized in 1981.**

## 6. Paediatric treatment

Kanya MR, Gasasira AF, Achan J, Mebrahtu T, Ruel T, Kekitiinwa A, Charlebois ED, Rosenthal PJ, Havlir S, Dorsey G. Effects of trimethoprim-sulfamethoxazole and insecticide-treated bednets on malaria among HIV-infected Ugandan children. *AIDS* 2007;21(15):2059-66

Trimethoprim-sulfamethoxazole (TMP/SMX) prophylaxis and insecticide-treated bednets reduce malaria risk among HIV-infected adults. The efficacy of TMP/SMX may be diminished where antifolate resistance to malaria is high. Kanya and co-authors evaluated the efficacy of these interventions for malaria prevention among Ugandan children. They concurrently followed 300 HIV-infected children aged 1-10 years and a community-based cohort of 561 healthy children aged 1-11 years over 11 months in Kampala, Uganda. The HIV-infected children received TMP/SMX prophylaxis and insecticide treated bednets. In the community cohort, insecticide-treated bednets were introduced during the observation period. Children from both cohorts were followed using a standardized protocol to measure the incidence of malaria. During follow-up, only nine episodes of malaria were diagnosed among HIV-infected children (incidence = 0.07/person-year) in comparison with 440 episodes among children from the community (incidence = 0.90/person-year;  $P < 0.0001$ ). The use of insecticide-treated bednets was associated with a 43% reduction in malaria incidence ( $P < 0.001$ ), and a combination of TMP/SMX and use of insecticide-treated bednets with a 97% reduction in malaria incidence ( $P < 0.001$ ). The prevalence of five mutations associated with antifolate resistance was high among malaria cases detected in both the HIV (100%) and community cohorts (75%). Malaria accounted for only 4% of febrile episodes in the HIV cohort in comparison with 33% in the community-based cohort ( $P < 0.0001$ ). The authors concluded that in a malaria endemic area with a high level of molecular markers of antifolate resistance, the combined use of TMP/SMX prophylaxis and insecticide-treated bednets was associated with a dramatic reduction in malaria incidence among HIV-infected children. **Editors' note: Although these are observational findings, they support the use of ITN (insecticide treated nets) and TMP/SMX prophylaxis for all HIV-infected children living in malaria endemic areas, even when mutations associated with resistance to the related folate sulfadoxine-pyrimethamine are common in the community. They also highlight opportunities for programmatic synergies to reduce malaria disease burden in children living with HIV.**

## 7. Men who have sex with men

Ma X, Zhang Q, He X, Sun W, Yue H, Chen S, Raymond HF, Li Y, Xu M, Du H, McFarland W. Trends in Prevalence of HIV, Syphilis, Hepatitis C, Hepatitis B, and Sexual Risk Behavior Among Men Who Have Sex With Men: Results of 3 Consecutive Respondent-Driven Sampling Surveys in Beijing, 2004 Through 2006. *J Acquir Immune Defic Syndr.* 2007;45:581-7

Studies tracking trends in HIV prevalence and risk behaviour among men who have sex with men (MSM) in China are rare. Ma and co-authors report on 3 consecutive cross-sectional surveys measuring the prevalence of HIV, other infectious diseases, and related risk behaviour among MSM in Beijing in 2004, 2005, and 2006. They applied respondent-driven sampling (RDS) to recruit MSM for a structured face-to-face interview on demographic characteristics and HIV risk-related behaviour. Blood specimens were drawn for HIV, syphilis, hepatitis B virus, and hepatitis C virus (HCV) testing. A total of 325 MSM participated in 2004, 427 in 2005, and 540 in 2006. HIV prevalence increased from 0.4% (95% confidence interval [CI]: 0.1 to 0.8) in 2004 and 4.6% (95% CI: 2.2 to 7.6) in 2005 to 5.8% (95% CI: 3.4 to 8.5) in 2006. This apparent rise was accompanied by an increase in syphilis and self-reported history of sexually transmitted diseases (STDs), high prevalence of multiple sex partners, and low consistent condom use. HCV prevalence also increased, from 0.4% (95% CI: 0.1 to 0.8) in 2004 to 5.2% (95% CI: 2.3 to 8.2) in 2006. The authors conclude that there was a possible rising prevalence of HIV and related risk behaviour among MSM in

Beijing using RDS in each of 3 consecutive years. Practical measures, including MSM-friendly HIV testing, STD services, and health provider education, are urgently needed to stop the further spread of HIV in this population. **Editors' notes: Although homosexuality is no longer a criminal act in China, men who have sex with men face considerable opposition and resistance. Service provision and healthcare provider education are important components of HIV prevention but they need to be accompanied by strategies to reduce the marginalisation of men who have sex with men and increase their engagement and ownership of participatory communication approaches to create protective sexual behaviour norms.**

## 8. Gender

Dunkle KL, Jewkes R, Nduna M, Jama N, Levin J, Sikweyiya Y, Koss MP. Transactional sex with casual and main partners among young South African men in the rural Eastern Cape: Prevalence, predictors, and associations with gender-based violence. *Soc Sci Med.* 2007;65(6):1235-48.

Dunkle and co-authors explored the prevalence and predictors of transactional sex with casual partners and main girlfriends among 1288 men aged 15-26 from 70 villages in the rural Eastern Cape province of South Africa. Data were collected through face-to-face interviews with young men enrolling in the Stepping Stones HIV prevention trial. A total of 17.7% of participants reported giving material resources or money to casual sex partners and 6.6% received resources from a casual partner. Transactionally motivated relationships with main girlfriends were more balanced between giving (14.9%) and getting (14.3%). The authors constructed multivariable models to identify the predictors for giving and for getting material resources in casual and in main relationships. Each model resulted in remarkably similar predictors. All four types of exchange were associated with higher socio-economic status, more adverse childhood experiences, more lifetime sexual partners, and alcohol use. Men who were more resistant to peer pressure to have sex were less likely to report transactional sex with casual partners, and men who reported more equitable gender attitudes were less likely to report main partnerships underpinned by exchange. The most consistent predictors of all four types of transaction were perpetration of intimate partner violence and rape against women other than a main partner. The strong and consistent association between perpetration of gender-based violence and both giving and getting material goods from female partners suggests that transactional sex in both main and casual relationships should be viewed within a broader continuum of men's exercise of gendered power and control. HIV prevention interventions need to explicitly address transactional sex in the context of ideas about masculinity, which place a high emphasis on heterosexual success with, and control of, women. **Editors' note: Giving and receiving material goods in unequal sexual relationships can be manipulative, reinforcing power imbalances. The association with intimate partner violence seen in this study provides further food for thought for the design of HIV prevention programmes addressing transactional sex.**

## 9. Positive prevention

Grodensky CA, Golin CE, Boland MS, Patel SN, Quinlivan EB, Price M. Translating Concern into Action: HIV Care Providers' Views on Counseling Patients about HIV Prevention in the Clinical Setting. *AIDS Behav.* 2007 Jun 19; [Epub ahead of print]

Recent Centers for Disease Control (CDC) guidelines recommend that HIV care practitioners provide HIV prevention counselling to patients at routine medical visits. However, research

shows that HIV care practitioners provide such counselling infrequently, presenting a challenge for clinics implementing these guidelines. Our qualitative study of 19 HIV care providers at an infectious diseases clinic in the southeastern US explored providers' beliefs about their patients' HIV transmission behaviours, expected outcomes of conducting HIV prevention counselling, and perceived barriers and facilitators to counselling. Providers' concern about HIV transmission among their patients was high but did not "translate into action" in the form of counselling. They anticipated poor outcomes from counselling, including harm to patient-provider relationships, and failure of patients to change their behaviour. They also listed barriers and facilitators to counselling, most importantly time, state reporting policies, and conversational triggers. Implications for implementation of CDC guidelines and clinic-based "Prevention with Positives" programs are discussed. **Editors' note: If HIV care providers do not feel they can discuss sexual behaviour with their patients because they believe it won't result in behaviour change, then this becomes a self-fulfilling prophecy. Barriers to positive prevention need to be considered and intentions reinforced in discussions between patients and care providers. The latter may need training and skills building to overcome their fear of damaging the therapeutic relationship, a fear which may be based in reality.**

That was *HIV This Week*, signing off.

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### **Editors' notes on journal access**

#### ***For readers in all countries:***

All abstracts in *HIV This Week* are freely available on the Web.

You can access a majority of scientific journals free of charge no matter where you are located, but for some journals you do need a subscription to access the full text of an article. Some journals are free to readers in all countries either through ScienceDirect or through the journal's own website.

For articles available through ScienceDirect, you should follow the link <http://www.sciencedirect.com/> to the ScienceDirect website. Then, type in the title of the journal for which you are searching.

Some journals are open access, available to readers in all countries: American Medical Association journals (<http://pubs.ama-assn.org/>), American Society of Clinical Oncology (2 journals), Australian Medical Association (1 journal), BioMed Central journals (<http://www.biomedcentral.com/>), BMJ journals (<http://journals.bmj.com/>), Canadian Medical Association (1 journal), Nature Publishing Group journals (<http://www.nature.com/>), Public Library of Science journal (<http://medicine.plosjournals.org/>) and Science (1 journal).

Other journals offer free access to full-text articles after a certain period of time (see lists at High Wire Press <http://highwire.stanford.edu/lists/freeart.dtl> and PubMed Central <http://www.pubmedcentral.nih.gov/>).

***For residents of low- and middle-income countries: the Health InterNetwork Access to Research Initiative (HINARI)***

HINARI, set up by the World Health Organisation (WHO) and major publishers, enables readers in low- and middle-income countries to gain access to one of the world's largest collections of biomedical and health literature. Over 3400 journal titles are now available to health institutions in 113 countries, benefiting many thousands of health workers and researchers, and in turn, contributing to improved world health. More information on the HINARI programme and eligible countries is available at <http://www.who.int/hinari/en/>, e-mail: [hinari@who.int](mailto:hinari@who.int).

Local, not-for-profit institutions in low- and middle- income countries may register for access to the journals through HINARI. Institutions in countries with GNP per capita below \$1000 are eligible for free access. Institutions in countries with GNP per capita \$1000-\$3000 pay a fee of \$1000 per year/institution.

***For employees of UNAIDS or WHO:***

If you work for WHO or UNAIDS, you can access a number of journals by going to the WHO library. You can also see the full list of journals you can access freely on the web (including usernames and passwords) by going to the WHO Library website, accessible through the home page of WHO intranet <https://intranet.who.int/> under Information Resources. If you work for UNAIDS, *HIV This Week* is also available on the intranet at the link <https://intranet.unaids.org/HIVThisWeek/2007/index.htm>.