Welcome to the thirty-third issue of HIV This Week! In this issue, we cover HIV prevention (sexual power dynamics and what makes a popular opinion leader on four continents; impact of “Staying Alive” in Nepal, Brazil and Senegal), gender (do women have clinical and viro-immunological advantages over men?), epidemiology (per-partnership transmission probabilities for young South African women; understanding the contrasting HIV epidemics in West and East Africa), men who have sex with men (cost-saving behavioural risk reduction programmes in the USA; the role of partners, sex venues and alcohol in recently acquired infections in Australia), male circumcision (practice makes perfect; why effective social change communication is needed to counter risk compensation), treatment (nutrition, disease progression, and mortality), HIV testing (interpreting the evidence for policy and programming), basic science (does progesterone protect against placental transmission?; breast milk latent lymphocyte reservoirs), injecting drug use (what does low threshold harm reduction mean?), paediatric treatment (antiretroviral effects on height and weight).

To find out how you can access a majority of scientific journals free of charge, please see the last page of this issue or check the HIV This Week blog on the UNAIDS website at http://hivthisweek.unaids.org.

We want to be as helpful to you as we can, so please let us know what your interests are and what you think of HIV This Week by sending a comment to hivthisweek@unaids.org or by posting one on the HIV This Week blog. If you would like to recommend an article for inclusion in HIV This Week, please let us know.

Don't forget that you can find a wealth of information on the HIV epidemic and responses to it at http://www.unaids.org.

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1. HIV prevention


The NIMH Collaborative HIV/STD Prevention trial group sought to obtain information about the social and cultural factors related to health behaviours influencing HIV/sexually transmitted disease (STD) transmission in study communities in China, India, Peru, Russia, and Zimbabwe so that the assessment and intervention of the National Institute for Mental Health (NIMH) Collaborative HIV/STD Prevention Trial could be adapted appropriately. Field observations, focus groups, in-depth interviews with key informants, and an observation of community social dynamics were conducted as part of a rapid ethnographic assessment. All

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five sites reported a power dynamic tilted towards men, which rendered women particularly vulnerable to HIV and other STDs. Women’s relative lack of power was exemplified by a double standard for extramarital sex, women’s limited ability to negotiate sex or condom use, and sexual and physical violence against women. In all sites except Russia, extramarital sex is tolerated for men but proscribed for women. In Peru, power dynamics between men who have sex with men were tilted towards men who self-identified as heterosexual. Condom use (reported to be low across all sites) was often linked to having sex with only those perceived as high-risk partners. Regardless of site or study population, participants agreed on the following characteristics of an ideal community popular opinion leader (C-POL): respectable, credible, experienced (life and sexual), trustworthy, empathetic, well-spoken, and self-confident. The ethnographic studies provided critical information that enabled the study teams to adapt elements of the Trial in culturally appropriate ways in diverse international settings. Editors’ note: This multi-country, four-continent, rapid ethnographic study of sexual power dynamics found an amazing level of agreement about what constitutes a community popular opinion leader - these are qualities for all of us to emulate!


In 2002 MTV launched a global multicomponent HIV prevention campaign, “Staying Alive,” reaching over 166 countries worldwide. An evaluation of this campaign focused on three diverse sites: Kathmandu, Nepal; Sao Paulo, Brazil; and Dakar, Senegal. Data were collected before and after campaign implementation through population-based household surveys. Using linear regression techniques, Geary and colleagues’ evaluation examined the effects of campaign exposure on interpersonal communication about HIV and the effects of campaign exposure and interpersonal communication on beliefs about HIV prevention. The authors found a consistent positive effect of exposure on interpersonal communication across all sites, though there were differences among sites with regard to whom the respondent talked about HIV. The authors also found a consistent positive effect of exposure on HIV prevention beliefs across sites when interpersonal communication was simultaneously entered into the model. Finally, in two sites the authors found a relationship between interpersonal communication and HIV prevention beliefs, controlling for exposure, though again, the effects differed by the type of person the communication was with. These similar findings in three diverse sites provide ecological validity of the findings that “Staying Alive” promoted interpersonal communication and influenced young people’s beliefs about HIV prevention in a positive way, evidence for the potential of a global media campaign to have an impact on social norms. Editors’ note: As we know from experience, interpersonal communication can have an important influence on attitudes, beliefs, intentions and behaviours. Some elements of interpersonal communication need to be stimulated for effective creation of social change through mass media campaigns.

2. Gender


Collazos and colleagues’ objectives were to compare the clinical, virological and immunological parameters of men and women at baseline and during antiretroviral treatment. The authors
analyzed over time data collected prospectively from 2620 patients in a large cohort of HIV-infected patients followed for 12 months after initiating a nelfinavir-based antiretroviral regimen. Women had higher CD4 cell counts ($P < 0.001$), lower viral load ($P < 0.001$) and more favourable clinical profile ($P < 0.001$) than men at baseline. Following treatment, antiretroviral drug-naive women had higher CD4 cell count ($P = 0.01$) over time than drug-naive men but similar virological responses ($P = 0.6$); among drug-experienced individuals, women had also better immunological ($P = 0.06$) and similar virological ($P = 0.3$) responses compared with men. Consequently, the viro-immunological profile was significantly more favourable in women at each time point. The rates of clinical progression or death were also lower in women ($P = 0.008$), although drug toxicity was observed more commonly in women ($P = 0.09$). The highest viro-immunological responses were observed during the first 3 months of therapy in both sexes, although virological responses were achieved up to the 6th month in drug-naive patients. Sex was significantly associated with clinical ($P = 0.01$), virological ($P = 0.01$) and immunological ($P = 0.006$) responses to antiretroviral treatment in multivariate analyses after adjustment for other variables. The differences between genders were not explained by different adherence to therapy. The authors conclude that women have more favourable clinical and viro-immunological patterns than men both at baseline and during antiretroviral treatment. Sex has a small but significant influence on the clinical and laboratory outcomes of HIV infection. Editors' note: When found, sex differences in mortality between men and women living with HIV have been directly correlated with differential access to treatment. The significance of the clinical and laboratory outcomes documented in this Spanish cohort for long term prognosis (disease progression and mortality) is unclear as only a 12 month follow up is reported.

3. Epidemiology

Pettifor AE, Hudgens MG, Levandowski BA, Rees HV, Cohen MS. Highly efficient HIV transmission to young women in South Africa. AIDS 2007;21:861-865. Young women in sub-Saharan Africa are at very high risk of HIV acquisition, and high prevalence levels have been observed among women reporting one lifetime partner and few sexual contacts. Such findings have led to hypotheses that the probability of HIV transmission from men to women must be far higher than previously appreciated. Pettifor and colleagues used the data from a cross-sectional national household survey of HIV among South African women aged 15-24 years to estimate the per-partnership transmission probability from men to women. Estimates were obtained using maximum likelihood methods and a transmission probability model allowing for random error in the self-reported number of lifetime partners. Sensitivity analyses were employed to assess the robustness of the per-partnership transmission probability estimates to the assumed HIV prevalence in male partners. HIV prevalence in women was 21.2% (95% confidence interval 17.9-24.5). The mean reported number of lifetime partners was 2.3. A significant increase in prevalence was observed with increasing lifetime partner numbers ($P = 0.02$). For a range of plausible values of the partner prevalence, the estimated per-partnership transmission probability varied from 0.74 to 1.00 with 95% confidence intervals ranging from 0.56 to 1.00. The per-partnership probability of HIV transmission from men to women in this population was very high. Before this, the majority of studies examining per-partnership transmission probabilities estimated values below 50%. Identifying the factors that may drive the efficient spread of HIV in sub-Saharan Africa is essential for the development of effective prevention interventions. Editors' note: Although there may be some self reporting bias
resulting in under-estimation of the number of sexual partners, this is a strikingly high per-partnership transmission probability for young women. Partner reduction would be beneficial but is unlikely to be effective on its own, and certainly will not if it one-sided. Correct and consist condom use, delaying sexual debut, avoiding penetrative sex, treatment of sexually transmitted infections, and learning one’s serostatus are all essential elements of combination prevention for both sexes.


Orroth and colleagues’ objectives were to determine if the observed differences in risk behaviours, proportion of males circumcised and sexually transmitted infection (STI) prevalences observed in two African cities with low HIV prevalence (Cotonou, Benin and Yaounde, Cameroon) and two cities with high prevalence (Kisumu, Kenya and Ndola, Zambia) could explain the contrasting HIV epidemics in the four cities. An individual-based stochastic model, STDSIM, was fitted to the demographic, behavioural and epidemiological characteristics of the four urban study populations based on the data from the Four Cities Study and other relevant sources. Model parameters pertaining to STI and HIV natural history and transmission were held constant across the four populations. The probabilities of HIV, syphilis and chancroid acquisition were assumed to be doubled among uncircumcised males. A priori plausible ranges for model inputs and outputs were defined and sexual behaviour characteristics, including those pertaining to sex workers (SW) and their clients, that were allowed to vary across the sites were identified based on comparisons of the empirical data from the four sites. The proportions of males circumcised in the model, 100% in Cotonou and Yaounde, 25% in Kisumu and 10% in Ndola, were similar to those observed. A sensitivity analysis was conducted to assess how changes in critical parameters may affect the model fit. Population characteristics observed from the study that were replicated in the model included younger ages at sexual debut and marriage in East Africa compared to West Africa and higher numbers of casual partners in the past 12 months in Yaounde compared to the other three sites. The patterns in STI prevalences in females in the general population and CSWs were fitted well. HIV prevalence by age and sex and time-trends in prevalence in the model were consistent with study data with the highest simulated prevalences in Kisumu and Ndola, intermediate in Yaounde and lowest in Cotonou. The sensitivity analysis suggested that the effect of circumcision on the development of the HIV epidemics may have been mediated indirectly by its effect on ulcerative STI. The authors conclude that the contrasting HIV epidemics in West and East Africa could be replicated in their model by assuming that male circumcision reduced susceptibility to HIV, syphilis and chancroid. Varying rates of male circumcision may have played a major role in explaining the strikingly different HIV epidemics observed in different parts of sub-Saharan Africa.

Editors’ note: These four African cities (Cotonou and Yaoundé in West Africa; Kisumu and Ndola in East Africa) have different demographics and sexual behaviours. Here an individual-based stochastic model is used to tease out key determinants of the striking differences observed between these cities in HIV prevalence. Male circumcision, and in particular the preventive effect of male circumcision on ulcerative sexually transmitted infections, goes a long way to explaining why Cotonou and Benin have lower HIV
prevalence. These findings concur with twenty years of ecological evidence on the relationship between higher levels of male circumcision and low levels of HIV prevalence.

4. **Men who have sex with men**


This article presents the results of a systematic review of the effectiveness and economic efficiency of individual-, group-, and community-level behavioural interventions intended to reduce the risk of acquiring sexually transmitted HIV in adult men who have sex with men (MSM). These results form the basis for recommendations by the Task Force on Community Preventive Services on the use of these interventions. Sexual risk behaviour and condom use were the outcomes used to assess effectiveness. Intervention effectiveness on biological outcomes could not be assessed because too few studies of adequate quality have been published. The evidence found in the review shows that individual-level, group-level, and community-level HIV behavioural interventions are effective in reducing the odds of unprotected anal intercourse (range 27% to 43% decrease) and increasing the odds of condom use for the group-level approach (by 81%). The Task Force concluded that the findings are applicable to MSM aged 20 years or older, across a range of settings and populations, assuming that interventions are appropriately adapted to the needs and characteristics of the MSM population of interest. Based on findings from economic evaluation studies, the Task Force also concluded that group- and community-level HIV behavioural interventions for adult MSM are not only cost effective but also result in actual cost savings. Additional information about other effects, barriers to implementation, and research gaps is provided in this paper. The recommendations based on these systematic reviews are expected to serve the needs of researchers, planners, and other public health decision makers. Editors’ note: As this review shows, behavioural risk-reduction programmes engaging men who have sex with men are even cost-saving in the population of men aged 20 years and older in the United States. Now the clear next step is increasing the scope, scale and intensity of what works, along with finding out what will be most effective for younger men is pressing.


HIV notifications affecting men having sex with men (MSM) in Victoria, Australia have been increasing. This study aimed to determine current risk factors for HIV infection in this population. This was a case-control study. Cases were MSM infected within the previous year (incident cases) as indicated by a previous negative test or seroconversion illness. Controls were MSM with a negative HIV test at the same clinic. From May 2001 to May 2003, cases and controls were interviewed about sexual behaviour, drug and alcohol use and mental health and sexually transmissible infections (STI) in the year before their HIV diagnosis. Twenty-six cases and 52 controls were recruited. Risk factors in the year before diagnosis of incident HIV infection included: receptive unprotected anal intercourse (UAI) with ejaculation with casual partners (odds ratio [OR] and 95% confidence interval 57.2 [6.7, 489.4]); insertive UAI with ejaculation with >1 casual partners (OR 19.2 [2.2, 168.9]); having
>14 casual partners at sex venues (OR 3.2 [1.1, 9.1]); and consuming >60 g alcohol at one sitting at least weekly (OR 3.6 [1.1, 11.4]). Cases were also more likely to have anal sex with >100 partners in their life and cases had more casual partners than controls in the year before the test. Cases were more likely to have consumed alcohol or amphetamines during a high-risk sexual episode in the year before the test. Unprotected anal intercourse remains the most important behavioural risk for HIV in Australian MSM. Risk is increased by larger numbers of partners, partners met at sex venues and sex under the influence of alcohol.

Editors' note: Finding out how recently acquired HIV infections have occurred can inform the design of effective programming that addresses this year’s epidemic dynamics rather than those of five years ago.

5. **Male Circumcision**


Krieger and colleagues examined male circumcision outcomes among young adults in an African setting. Participants were healthy, sexually active, uncircumcised, HIV-seronegative males aged 18-24 years. The main outcomes measured included complications, healing, satisfaction and resumption of activities. Of 1,475 procedures, 26 (1.8%) were associated with 27 adverse events, most commonly wound disruption/delayed healing (0.6%), wound infection (0.4%), and bleeding (0.3%). Adverse events per clinician averaged 3.8 and 2.1% for procedures 1-100 and 101-200, respectively, and <1% for procedures 201-300, 301-400 and >400, respectively (p < 0.001). Participants resumed normal general activities after a median of 1 postoperative day and 93% with regular employment resumed working within 1 week. After 30 days, 99% of participants reported being very satisfied. After 90 days, 65% reported having had sex, 45% reported that their partners had expressed an opinion, 92% of whom were very satisfied with the outcome. The authors conclude that safe and acceptable adult male circumcision services can be delivered in developing country settings. Editors' note: This Kisumu study shows a low surgical complication rate overall and a fall to less that 1 percent for clinicians who have performed over 400 male circumcisions. As with many things in life, practice makes perfect.


Gray and colleagues aimed to estimate the impact of male circumcision on HIV incidence, the number of procedures per HIV infection averted, and costs per infection averted. A stochastic simulation model with empirically derived parameters from a cohort in Rakai, Uganda was used to estimate HIV incidence, assuming that male circumcision reduced the risks of HIV acquisition with rate ratios (RR) ranging from 0.3 to 0.6 in men, their female partners, and in both sexes combined, with circumcision coverage 0-100%. The reproductive number (R0) was also estimated. The number of HIV infections averted per circumcision was estimated from the incident cases in the absence of surgery minus the projected number of
incident cases over 10 years following circumcision. The cost per procedure ($69.00) was used to estimate the cost per HIV infection averted. Baseline HIV incidence was 1.2/100 person-years. Male circumcision could markedly reduce HIV incidence in this population, particularly if there was preventative efficacy in both sexes. Under many scenarios, with RR $\leq 0.5$, circumcision could reduce $R_0$ to $< 1.0$ and potentially abort the epidemic. The number of surgeries per infection averted over 10 years was 19-58, and the costs per infection averted was $1269-3911$, depending on the efficacy of circumcision for either or both sexes, assuming 75% service coverage. However, behavioural disinhibition could offset any benefits of circumcision. The authors conclude that male circumcision could have substantial impact on the HIV epidemic and provide a cost-effective prevention strategy if benefits are not countered by behavioural disinhibition. Editors’ note: This modelling study assumes a certain level of preventive efficacy of male circumcision for women. Women benefit from male circumcision if men have fewer sexually transmitted infections; however, the indirect effects for women of lower HIV prevalence in potential male partners will take some years to be evident at a population level. Of note, risk compensation, where individuals might abandon or not adopt other prevention strategies, could wipe out many of the benefits of male circumcision. Communication strategies about the role of male circumcision in combination prevention are urgently needed.

6. Treatment


Zachariah and colleagues’ objectives were, among adults started on antiretroviral treatment (ART) in a rural district hospital, (a) to determine the cumulative proportion of deaths that occur within 3 and 6 months of starting ART, and (b) to identify risk factors that may be associated with such mortality. The authors chose a cross-sectional analytical study set in Thyolo district, Malawi. Over a 2-year period (April 2003 to April 2005) mortality within the first 3 and 6 months of starting ART was determined and risk factors were examined. A total of 1507 individuals (517 men and 990 women), whose median age was 35 years were included in the study. There were a total of 190 (12.6%) deaths on ART of which 116 (61%) occurred within the first 3 months (very early mortality) and 150 (79%) during the first 6 months of initiating ART. Significant risk factors associated with such mortality included WHO stage IV disease, a baseline CD4 cell count under 50 cells/mul and increasing grades of malnutrition. A linear trend in mortality was observed with increasing grades of malnutrition (chi for trend = 96.1, $P \leq 0.001$) and decreasing CD4 cell counts (chi for trend $= 72.4, P \leq 0.001$). Individuals who were severely malnourished [body mass index (BMI) < 16.0 kg/m] had a six times higher risk of dying in the first 3 months than those with a normal nutritional status. The authors conclude that among individuals starting ART, the BMI and clinical staging could be important screening tools for use to identify and target individuals who, despite ART, are still at a high risk of early death. Editors’ note: As the roll-out of antiretroviral treatment has proceeded, a high mortality rate in the first six months of treatment has been noted in many settings. This study shows that malnutrition is a major contributing factor, emphasizing the critical importance of food supplementation for people starting on antiretroviral treatment, along with earlier diagnosis when nutritional status has not been compromised by the high metabolic rate effects of HIV infection.

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7. HIV testing


Should all adults and adolescents be screened for HIV? Do all persons at high risk deserve annual screening? The Centers for Disease Control and Prevention (CDC) thinks so, but the US Preventive Services Task Force takes a less aggressive stance. The two agencies looked at the evidence and interpreted it differently—and likewise we must each decide what is best for our own patients and community. Routine screening is one of several recently revised recommendations from the CDC. Though the CDC has historically taken a cautious approach to HIV testing, the winds appear to be changing. Editors’ note: These questions have been preoccupying WHO and UNAIDS over the past year as guidance for provider-initiated testing and counselling based on the UNAIDS/WHO 2004 Policy Statement on HIV Testing and Counselling has been developed. The guidance, which was developed through extensive consultations with stakeholders, will be released June 1.

8. Basic Science


Progesterone levels are higher in placental barriers during pregnancy, but the effect of progesterone on human immunodeficiency virus type 1 (HIV-1) infection in placental cells has not been addressed. Diaz Munoz and colleagues hypothesize that progesterone may affect HIV infection. Purified trophoblastic cells and trophoblastic cell lines were infected or transfected with HIV-1, and the effect of progesterone was analyzed. Viral replication was measured by viral p24 or viral load quantification. Nuclear factor kappa -B (NF- kappa B) or long terminal repeat (LTR)-dependent transcription was measured by luciferase assays. Expression of chemokine receptors was analyzed by flow cytometry. Tumor necrosis factor (TNF) messenger RNA was assessed by reverse-transcription polymerase chain reaction (RT-PCR) and quantitative RT-PCR. Results. Progesterone inhibits HIV-1 replication in placental cells at the concentration found in the placental interface, at a postentry step, and does not affect cell surface expression of chemokine receptors. Progesterone did not inhibit basal or induced LTR transcription or NF- kappa B activation. TNF synthesis in placental cells is induced by HIV-1 infection that, in an autocrine manner, activates viral replication, because neutralizing anti-TNF antibodies block it. Progesterone inhibits the induction of TNF synthesis by viral infection and virus or gp-120-induced TNF transcription. The authors’ results demonstrate that progesterone inhibits HIV-1 replication in placental cells by reducing TNF levels, which are required for optimal viral replication. Editors’ note: This study provides some insight as to why the rate of HIV transmission is so low during pregnancy itself. Progesterone in the placenta is helping stop the virus in its tracks.


An HIV-1 reservoir comprised primarily of latently infected resting CD4(+) T lymphocytes that can be stimulated in vivo to produce virus may play a critical role in mother-to-child postnatal transmission of HIV-1 by breastfeeding. Here, Petitjean and colleagues describe an experimental protocol for the detection of resting CD4(+) T cell HIV-1 reservoir from
breast milk. The authors adapted a method for the purification of resting CD4(+) T lymphocytes in blood to isolate resting CD4(+) T cells in breast milk from HIV-1-infected-lactating women (n=18) and from controls (n=3). Purified resting CD4(+) T cells from blood and breast milk samples of HIV-1-infected-lactating women were polyclonally stimulated to characterize and enumerate HIV-1-antigen-secreting cells (HIV-1-Ag-SCs) by an enzyme-linked immunospot (ELISpot) assay. Resting CD4(+) T cells represented more than 90% of purified viable breast milk cells. CD4(+) T cell polyclonal stimulation combined with the ELISpot assay led to the characterization of a breast milk T cell HIV-1 reservoir greater than the blood reservoir (median 400 and 57.14 HIV-1-Ag-SCs/10^6 resting CD4(+) T cells, respectively, p<0.001). The authors’ strategy could be adapted to other body fluids and be useful for characterizing new HIV-1 reservoirs. Editors’ note: Breast milk contains a latent CD4(+) T lymphocyte reservoir that can be activated for viral replication. Developing techniques to study this pathway further, and how to interrupt it, could have implications for reservoirs in other body fluid compartments.

9. Injecting drug use


This study assessed injection-related HIV risk behavioural changes among opioid users 6 months after enrollment in low-threshold (harm reduction based) methadone maintenance treatment (MMT) programs within needle exchange services in Kingston and Toronto, Ontario, Canada. Changes were assessed for all participants (whole cohort), participants who continued to use illicit drugs by any route (drug-using subcohort); and those who continued to inject drugs (injecting subcohort). In this prospective observational cohort study, an interviewer-administered questionnaire examining injection-related HIV risk behaviours was administered to 183 study participants at entry to treatment and 6 months later. Changes in risk behaviours were analyzed using conditional logistic regression which took into account the paired nature of the data. The authors found that the proportion of participants injecting drugs, sharing needles, sharing drug equipment, indirectly sharing and using shooting galleries declined with follow-up for the whole cohort. Within the drug-using subcohort, there was a decrease in the proportion of individuals who injected drugs, while within the injecting subcohort the sharing of injection equipment and the use of shooting galleries declined. Our findings suggest that low-threshold MMT programs can reduce the risk of HIV without the enforcement of abstinence-based policies. Editors’ note: Effective harm reduction programmes based on a “different strokes for different folks” principle such as this low threshold methadone programme, demonstrate that one size does not fit all. People who are not prepared to abstain from drug use currently can benefit from lower threshold programmes that assist them to make healthier choices.

10. Paediatric treatment


There are few data on long-term effects of highly active antiretroviral therapy (HAART) on weight and height in HIV-infected children. Guillen and colleagues’ assess the effect of HAART on the weight and height of HIV-infected children over time in the Madrid cohort, and analyze possible factors associated with the effect. This was a retrospective study of
HIV-infected children starting HAART in 1997 or later. Serial measurements of weight, height and body mass index (BMI) were performed and converted to z-scores using the Spanish revised reference data. Changes from baseline in weight, height and BMI at 12, 24, 36, 48 and 60 months were determined. Associations of z-scores at the last visit with immunologic (CD4% above 25%) and virologic responses (more than 50% of samples below 400 copies/mL), CDC (Centers for Disease Control) clinical category, and the presence and type of lipodystrophy (lipoatrophy or lipohypertrophy) were evaluated. Twelve hundred and twelve children, 97% of them vertically-infected, received HAART starting in 1997 for a median of 71 months (4-102 months). Median age at initiation of HAART was 6 years (1 month-18 years). Thirty-nine percent were antiretroviral naive and 61% had received NRTI therapy previously. Thirty-two percent and 53% had CDC class C and immunologic class 3, respectively. At the final evaluation, 24% of children remained on their first combination therapy, 39% on the second and 37% had received at least 3 different HAART regimens. Fifty-one percent were classified as virologic responders. Thirty-nine percentage of children in this study were diagnosed with lipodystrophy. At baseline, median z-scores for weight, height and BMI were -0.45, -0.60 and -0.33, respectively. HAART was associated with significant increases in z-scores of weight and height but not BMI at the different time-points analyzed. Virologic nonresponders had significantly lower z-scores for weight and height but not for BMI. CDC class C was associated with lower z-scores for height. No differences in final measurements were observed for baseline CD4, immunologic response or lipoatrophy. Children with lipohypertrophy had a significantly higher BMI at the last visit. The authors concluded that HIV-infected children experienced a continued catch-up in weight and height 5 years after starting HAART. Virologic control is related to sustained growth. Editors’ note: This retrospective study demonstrates the effects of antiretroviral treatment on growth curves (height and weight) for children living with HIV. Keeping the virus under control is key - these kids are still catching up 5 years after starting treatment. Would earlier treatment have made a difference?

That was HIV This Week, signing off.

Editors’ notes on journal access

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