Design of the bibliographic retrieval of this issue

Databases: Current Contents Life Sciences (weeks # 20 to 24: May 14 to June 11, 2001 coverage: journal and book citations)

Journal contents: Health Policy and Planning, MMWR, Social Science and Medicine, Tropical Medicine and International Health (May to June, 2001)

News Groups: AFRO-NETS, AMEDEO, CABA, Kaiser, Medscape, ProCAARE, RHO

Conferences: Meeting on HIV and Infant Feeding, 9-10 Octobre 2000. Nairobi, KENYA ; 5th Int Workshop on HIV Drug Resistance & Treatment Strategies. 4-8 June 2001, Scottsdale, AZ, USA

Number of citations screened for this issue: 1281

Number of citations selected for this issue: 33

Subject Headings/Subheadings

Contraception
Gynaecology
Infant feeding/Breastfeeding
MTCT (Mother-to-Child Transmission)
Obstetrics
PMTCT/ARV (Prevention of Mother-to-Child Transmission/AntiRetroVirals)
Primary prevention of sexual transmission
Termination of pregnancy/Abortion

Citation format (by alphabetical order of the authors)

Author(s). Title. Source. Notes (prepared by the Bordeaux Working Group) Author address, if available (for reprints) URL, if available (link to author abstract/full text/journal TOC) Subject Headings

**Notes:** A summary of the discussions held during the 14th Rochester Trophoblast Conference, October 3-8, 2000 on HIV infection and co-infections of the placenta, and presented as a set of eight questions and answers. Selected conclusions include the followings. The placenta appears the only organ that puts HIV in " latency ", potentially an important lead for HIV vaccine research. Several mechanisms allow the placenta to act as an HIV infection barrier but conclusive evidence is limited for all of them. The placenta does not necessarily have to be infected to allow vertical transmission. The quantification of the role of co-infections remains problematic. Placental gene-expression in vertical HIV transmission should be urgently investigated.

**Address:** Anderson V, SUNY Hlth Sci Ctr, Dept Pathol, 450 Clarkson Ave Brooklyn, NY 11203 USA

**URL:** [http://www.idealibrary.com/links/citation/0143-4004/22/S34](http://www.idealibrary.com/links/citation/0143-4004/22/S34)

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**Notes:** This cross-sectional study of 318 HIV-1 seropositive women in Mombasa, Kenya reports that selenium deficiency (defined as serum levels < 85 µ/L) was observed in 11% of the study population. This deficiency could be associated with a higher likelihood of genital mucosal shedding of HIV-1-infected cells, suggesting that deficiency may increase the infectiousness of women with HIV-1. Nutritional interventions to prevent HIV-1 transmission warrant investigation. However, it is important to notice that prevalence of selenium deficiency was not frequent enough to guarantee any impact of supplementation.

**Address:** Baeten JM, Univ Washington, Dept Epidemiol, 325 9th Ave, Box 359909 Seattle, WA 98195 USA


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**Primary prevention of sexual transmission, PMTCT**


**Notes:** A commentary on the viewpoint expressed by Rosenfield and Figdor in the same issue of the Journal. The author reminds us that no single country has been able so far to offer antiretroviral drugs routinely for PMTCT. Among the reasons, the failure of most HIV testing models is certainly critical.

**Address:** Bassett MT, Department of Community Medicine, University of Zimbabwe Medical School, Harare, ZIMBABWE

**URL:** [http://www.apha.org/journal/table_of_contents/tocmay01.htm](http://www.apha.org/journal/table_of_contents/tocmay01.htm)

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**Notes:** A good review paper on PMTCT, with an update on the progress and prospects in the USA and in resource-poor settings.

**Address:** Bulterys M, CDC and Prevention, Atlanta, GA, 30333 USA


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**Notes:** A systematic review of randomised trials assessing the effectiveness of different models of antenatal care was undertaken by means of a search strategy (MEDLINE search, relevant unpublished literature and Cochrane Controlled Trials Registered). Standard models (average 12 visits) were compared with a model which includes lower number of antenatal visits. Maternal and perinatal outcomes were used to evaluate the performance of the different models. As in the report by Villar et al, included in the same issue of Lancet (see below), this review confirms that a reduced number of antenatal visits, with or without goal-oriented components could be introduced into clinical practice without adverse effects to mother or baby. See also the editorial by Hall, MH in the same issue.

Notes: A cross-sectional assessment within the 1993 Ghana Demographic and Health Survey. Primiparous women with unintended pregnancies breastfed for a median of 21 months vs 18.5 months in case of planned pregnancies. There was no difference for nulliparous women. These results are consistent with the literature.


Notes: This paper presents a case report of a HIV-infected child who presented neurologic deterioration, lactic acidosis and organic aciduria after being treated by nucleoside analogues starting at three month of life. The diagnostic of abnormal mitochondrial function was retained and treatment was discontinued at 23 months. DNA depletion is reversible. The authors recommend to evaluate lactic acidosis in children treated by NA and presenting neurologic deterioration.


Notes: The authors describe the mortality up to 18 months in all African children born to HIV-1 infected mothers exposed peripartum to zidovudine (ZDV) or placebo (Plc) and the mortality in HIV-1-infected children. Among 407 livebirths, 75 infants died. The relative risk of death at 230 days of life was (ZDV vs PLC) 0.47 (95% CI 0.2-1.0). In children infected, 51/101died. The risk factors for death in HIV-1 infected children were maternal CD4+ lymphocytes <200/mm3, maternal death, and diagnosis of infection <45 days. The authors conclude that the mortality of HIV-1 infected children is high in this west African population. MTCT prevention programmes can be used to reduce child mortality.


Notes: A report of this workshop where infant feeding strategies, training, counselling, practices and formative research findings were discussed by participants from six countries of Eastern and Southern Africa, under the auspices of UNICEF and other agencies. The summary document is accompanied by copies of individual presentations done during the meeting.


Notes: A sub-analysis of the relation between HIV-1 subtype, MTCT and nevirapine resistance in the HIVNET 012 cohort (N=102). Resistance was more frequent with subtype D but the association with transmission was below statistical significance.
PMTCT/ARV


Notes: A prospective observational cohort study conducted in 24 European centers to look at determinants of MTCT of hepatitis C virus (HCV). This is the largest series ever reported on the issue, with 1474 HCV-infected women, 35% of those coinfected with HIV. The overall HCV transmission rate is 9.2%. HIV coinfection multiplies this risk by 2.3 (95% confidence interval of the odds ratio: 1.6-3.4). Breast-feeding (OR=4.1, CI: 1.3-12.9) and C-section (OR=0.4, CI: 0.2-0.8) are both associated to the risk of HCV infection, in HIV-coinfected women only. Preventive recommendations may therefore apply only to this subgroup.

Address: Newell ML, Department of Paediatric Epidemiology and Biostatistics, Institute of Child Health, University College London, 30 Guilford Street, London WC1N 1EH, UK

MTCT


Notes: This research letter reports attitudes regarding infant feeding decisions of HIV-women enrolled in a study providing short course ZDV monotherapy to reduce mother-to-child transmission of HIV in Nairobi, Kenya. Women who informed their partner about their HIV status were more likely to choose formula feeding over breastfeeding than women who did not. However, it is unclear whether formula feeding was provided to women by the project. This study highlights once more the need to incorporate partners into the process of PMTCT.

Address: Farquhar C, Univ Washington, Dept Med & Epidemiol, Seattle, WA 98195 USA

Infant feeding/Breastfeeding


Notes: A review of the issue. The authors argue against the public health feasibility of replacement feeding programmes and favor efforts to make breastfeeding safer.

Address: Humphrey J, Johns Hopkins Sch Hyg & Publ Hlth, Ctr Human Nutr, Baltimore, MD 21205 USA

Infant feeding/Breastfeeding


Notes: A case report of an infant born to a woman who received multiple mono, dual then triple antiretroviral therapy before starting her pregnancy with a non conventional PMTCT regimen. The infant was HIV-infected with a multiple resistant virus, linked phylogenetically to her mother's virus. Infant plasma drug susceptibility was reduced for the three categories of antiretroviral drugs.

Address: Johnson VA, Division of Infectious Diseases, University of Alabama at Birmingham School of Medicine, Birmingham, AL 35294-0006, USA

Infant feeding/Breastfeeding


Notes: An assessment of the intrinsic qualities of four rapid HIV assays used in parallel ad serial testing algorithms on 1216 sera with non B subtype HIV infections. Overall results were similar to thoses obtained with ELISA tests. The relevance for antenatal and intrapartum HIV screening s clear.

Notes: L Kuhn et al. reply to the letter by Songok et al in the same issue of the Journal (see below) raising the fact that Kenyan findings about mortality were not presented according to children HIV status and not adjusted on potential confounding variables such as maternal CD4 count, viral load, and viral phenotype. Such factors could explain the discrepancies between the two studies.

Address: Kuhn L, Columbia Univ, Gertrude H Sergievsky Ctr, Coll Phys & Surg Joseph L Mailman, Sch Publ Hlth, Div Epidemiol, 630 W 168th St, New York, NY 10032 USA

URL: NA

PMTCT/ARV


Notes: New population-based studies indicate high proportions of young women already infected with HIV in comparison with their male counterparts in the same age group. In this editorial comment, Laga et al highlight the importance of HIV infection rates among young women (15-19 years) and emphasize the need of new approaches to increase prevention efforts. In a publication in the same AIDS issue, prevalence rates of HIV infection in South Africa among people aged 14-24 years are reported: 9% for men and 34% for women. The authors remind us that HIV is transmitted more easily from men to women than from women to men. This risk being even higher when a young, physiologically immature women has sex with an HIV-infected partner, in the presence of forced sex or during the loss of virginity. Other factors to consider are higher levels of untreated STIs, such as gonococcal, chlamydia or herpes simplex virus type 2 infections. The latter has been reported having a strong relation with seropositivity in South Africa with odds ratios of 9.8 (95% CI: 5.8-16.6) for women and 5.3 (2.7-10.3) for men. The needs for policy implications are stated: reach young women with preventive services, including sex education, before they become sexually active and encourage men to adopt safer behaviours. Other strategies are teaching youth negotiation skills and alternatives to penetrative sex as well as the promotion and accessibility of condom use and the need of reproductive health services for adolescents and young adults.

Address: Laga M, Inst Trop Med, B-2000 Antwerp BELGIUM

URL: http://www.aidsonline.com/

Primary prevention of sexual transmission


Notes: This article reports the first evidence of an association between low serum provitamin A carotenoid levels and an increased risk of heterosexual HIV seroconversion in individuals attending sexually transmitted diseases clinics in Pune, India. The authors present the results of a nested matched case-control study showing that STD patients with beta-carotene levels less than 0.075 mmol/L were 21 times more likely to acquire HIV infection than those with higher levels (p=0.01). They showed a similar association, although not statistically significant, between low serum retinol levels and the risk of HIV seroconversion. This study highlights that, beyond reducing the risk of MTCT, the prevention of micronutrient deficiency may greatly contribute to decreasing the risk of HIV acquisition at a population level.

Address: Mehendale SM, Natl AIDS Res Inst, Plot 73 G Block, MIDC Pune, 411026 Maharashtra INDIA

URL: http://www.jaids.com/article.asp?ISSN=1525-4135&VOL=26&ISS=4&PAGE=360

Primary prevention of sexual transmission


Notes: A prevalence survey of antiretroviral resistance mutations in 168 plasma samples collected around the time of delivery in Mulago Hospital, Kampa in 1998-1999. Genotypic mutations associated with zidovudine were seen in 20%, increasing over time.
PMTCT/ARV


Notes: In this paper, Nduati et al report that in their randomised trial when conducting an intent-to treat analysis, a total of 24 of 397 HIV-infected women (6%) died in the two years following delivery: 18 women breastfeeding, but only six in the formula feeding group. Overall, mortality was associated with a CD4 count below 500 cells per mm3 and a viral load above the median. The authors conclude that breastfeeding results in higher HIV progression in women than formula feeding. Such findings could have profound implications on public health policy for HIV-infected women about infant feeding. However, several bias could affect this association which need to be considered more deeply (see below the editorial by ML Newell in the same issue of the Journal and the WHO statement).

Address: Nduati R, Departments of Paediatrics and Medical Microbiology, PO Box 19676, University of Nairobi, Nairobi KENYA

URL: http://www.thelancet.com/journal/vol357/iss9269/contents

Infant feeding/Breastfeeding


Notes: ML. Newell comments on the above paper published by Nduati et al raising several weaknesses in the analysis: in this randomised clinical trial, women who breastfed tend to be more advanced in HIV disease than those who formula fed (lower CD4 count, lower vitamin A level, higher plasma and cervico-vaginal viral load). Analyses were carried out separately by laboratory markers of HIV progression at enrollment, by cause of death and by nutritional status, but not using multivariate methodology. Loss to follow-up was substantial and occurred earlier in the formula feeders than among breastfeeders and deaths could have been underreported in the formula group. In addition, a non intent to treat analysis could have been done, keeping in mind the fact that 30% of the formula feeders actually breastfed. Finally, these results are inconsistent with those reported by Coutsoudis (Intelligence Report #1) and no underlying mechanism is suggested by the authors. ML Newell concludes with the need for a creative analysis to further explore these findings.

Address: Newell ML, Department of Paediatric Epidemiology and Biostatistics, Institute of Child Health, University College London, 30 Guilford Street, London WC1N 1EH, UK

URL: http://www.thelancet.com/journal/vol357/iss9269/contents

Infant feeding/Breastfeeding


Notes: The UNICEF representative in Uganda, together with national health officials announced for the first time that PMTCT with nevirapine should be available to all HIV-infected women informed of their serostatus in this country by the end of 2002. The background figure is 70,000 infants born with HIV infection each year, but no target has been set in this official announcement.

URL: http://hiv.medscape.com/reuters/prof/2001/05/05.25/20010524publ005.htm (Registration requested)

Notes: In this opinion paper, the authors claim that during the Durban Conference, not enough attention has been paid on the global context of PMTCT, including the need for treatment of the women and the children for their own HIV infection, the practical requirements for the safe implementation of alternatives to breast-feeding and the need to invest significantly in infrastructure to guarantee PMTCT activities are properly implemented. See above the commentary by Basset.

Address: Rosenfield A, Mailman School of Public Health, Columbia University, New York, NY, USA
URL: http://www.apha.org/journal/table_of_contents/tocmay01.htm

PMTCT


Notes: This study found that the iron status is not related to markers of HIV disease severity (RNA plasma viral load and CD4 count) in 483 African pregnant women.

Address: Semba RD, Departments of Ophthalmology and Epidemiology, Johns Hopkins University, Schools of Medicine and Hygiene and Public Health, Baltimore, MD, 21205, USA.

Obstetrics


Notes: The objective of this qualitative study was to define a strategy encouraging optimal breastfeeding patterns in rural Gambia. The authors emphasise the influence of family and community members on infant and child feeding practices and the need for targeting nutrition education at elders and husbands. They also underline the importance of linking traditional and modern beliefs in promoting adequate feeding practices. This strategy highlights that a holistic approach is fundamental to improve child health.

Address: Semega-Janneh IJ, Institute for Nutrition Research, University of Oslo, PO Box 1046, Blindern 0316 Oslo, NORWAY

Infant feeding/Breastfeeding


Notes: This letter refers to a paper published last year by Kuhn et al (J Infect Dis 2000;182:104-11) reporting in an observational cohort higher AIDS progression and mortality among HIV-infected children who were exposed to maternal ZDV ACTG 076 regimen than among those unexposed to maternal ZDV. Songok et al report their own experience in an observational cohort implemented in western Kenya providing short course ZDV monotherapy to HIV-infected women. Among the the 216 eligible women, only 120 (56%) received ZDV, the other being excluded mainly because of earlier delivery than expected. At 24 months of age, the HIV transmission rate was 15% in the ZDV group and 43% in the non-ZDV group (p<.0001). In addition, regardless of their HIV status, 34 of 120 (28%) of children exposed to maternal ZDV died vs 41 of 96 (43%) of children not exposed to maternal ZDV (p=.039). No mortality results were provided according to the HIV infection status of the children. The authors suggest that short ZDV regimens are safer than longer ZDV regimens. See above the reply by Kuhn et al.

Address: Ichimura HK, Univ Sch Med, Dept Viral Infect & Int Hlth, 13-1 Takaramachi, Kanagawa 9208640 JAPAN
URL: http://www.journals.uchicago.edu/JID/journal/contents/v183n10.html

PMTCT/ARV


Notes: This article presents a prospective study describing the changes in the characteristics and management of HIV-infected pregnant women in nine European countries since 1986. Among the major trends highlighted, the authors report that the proportion of heterosexual acquisition of HIV-infection increased from 59% in 1987 to 69% in 1997, while infection through drug injection decreased; the average viral load declined over the study period (and was
recently often associated with low CD4 cell counts); the use of prophylactic zidovudine therapy was largely extended from 28% of pregnant women and children in 1995 to 89% in 1999; the proportion of women taking triple therapy increased from 1% to nearly 50% from 1997 to 1999; and the overall rate of vertical transmission declined from 15.5% in 1994 to 2.6% in 1998. The authors highlight that beyond these medical successes, increased attention on factors such as ethnicity, drug use, antiretroviral therapy adherence, infant feeding practices, and quality counselling is essential to further reduce and eliminate the risk of MTCT.

**Address:** Newell ML, Department of Paediatric Epidemiology and Biostatistics, Institute of Child Health, University College London, 30 Guilford Street, London WC1N 1EH, UK

**URL:** [http://www.aidsonline.com/](http://www.aidsonline.com/)

### PMTCT/ARV


**Notes:** This prospective study reports the changes in infant diets and the predictors of adherence to national infant feeding recommendations in a cohort of 720 newborn babies in rural Malawi. As most babies were given water or other supplemental foods soon after birth, the exclusive breastfeeding rates were only 19%, 8%, 2% and 0% at ages 1, 2, 3 and 4 mo, respectively. Complementary foods and family foods were introduced very early and were risk factors for infant malnutrition. This study shows that exclusive breastfeeding is uncommon in this rural area which makes difficult the field feasibility of this alternative to reduce MTCT. Education may improve adherence to exclusive breastfeeding and reduce the incidence of early childhood malnutrition in Malawi.

**Address:** Vaahtera M, Univ Tampere, Sch Med, POB 607 FI-33101, Tampere FINLAND


### Infant feeding/Breastfeeding


**Notes:** A multicentre randomised controlled trial of 24 500 pregnant women living in Saudi Arabia, Thailand, Cuba and Argentina compared the standard model of antenatal care (ideally 12 visits) with a new model that proposes a set of effective, goal-oriented activities known to be effective in improving maternal or neonatal outcomes and has fewer clinic visits (median of 5 visits). Women enrolled in clinics offering the new model were classified on the basis of history of obstetric and clinical conditions. Those who did not require further specific assessment or treatment were offered the basic component of the new model, and those deemed at higher risk received the usual care for their conditions. More women in the new model than in the standard model were referred to higher levels of care (13.4% vs 7.3%) but rates of hospital admission, diagnosis and length of stay were similar for both groups. Other primary outcomes such as the rate of infant low birthweight, postpartum anaemia, and urinary tract infection were similar in both groups. Women and providers in both groups were, in general, satisfied with the care received. There were no cost increase and in some settings the new model decreased costs. The reduction of antenatal visits can be beneficial for antenatal care if properly planned. Other challenges are to achieve adequate risk assessment and to have a functional referral system. This is measuring for wide scale implementation of PMTCT activities. See above the paper by Carroli et al and also the editorial by Hall in the same issue of the Journal, Lancet 2001; 357 (9268).

**Address:** Villar J, Department of Reproductive Health and Research, WHO, 1211 Geneva 27, SWITZERLAND

**URL:** [http://www.thelancet.com/journal/vol357/iss9268/abs/llan.357.9268.original_research.16310.1](http://www.thelancet.com/journal/vol357/iss9268/abs/llan.357.9268.original_research.16310.1)

### Obstetrics

WHO. **Effect of Breastfeeding on Mortality among HIV-Infected Women. WHO Statement, 7 June 2001.**

**Notes:** WHO states that "the new results by Nduati et al do not warrant any change in current policies on breastfeeding nor on infant feeding by HIV-infected women. These are: 1) Exclusive breastfeeding should be protected, promoted and supported for six months. This applies to women who are known not to be infected with HIV and for women whose infection status is unknown; 2) When replacement feeding is acceptable, feasible, affordable, sustainable and safe, avoidance of all breastfeeding by HIV-infected mothers is recommended; otherwise, exclusive breastfeeding is recommended during the first months of life; 3) To minimize HIV transmission risk, breastfeeding should be discontinued as soon as feasible, taking into account local circumstances, the individual woman’s situation and the risks of replacement feeding (including infections other than HIV and malnutrition); 4) HIV-infected women should have access to information, follow-up clinical care and support, including family planning services and nutritional support".
Infant feeding/Breastfeeding

Notes: A review of the common breastfeeding issues and recommendations that should be applied. The text is primarily written for clinicians in the USA but is well documented and practical. The author reminds us that the ideal management of breastfeeding issues is their prevention.
Address: Wight NE, Child Hosp & Hlth Ctr, Div Neonatol, 3020 Childrens Way, MC 5008, San Diego, CA 92123 USA
URL: NA

Infant feeding/Breastfeeding

Notes: An example of evaluation of a PMTCT programme in seven States (USA). Birth registries, HIV/AIDS registries, anonymous serological survey results, and supplemenal chart abstraction were used to evaluate trends from 1993 to 1996. At the end of the period, 80% of the HIV-infected women were diagnosed before delivery. Pre-partum, intra-partum and neonatal zidovudine prophylaxis reached 83%, 75% and 77%, respectively of those diagnosed. The authors conclude that guidelines have been rapidly adopted but continued decline in perinatal transmission of HIV depends at least in part of efforts to increase acces and use of prenatal care and testing services, including rapid HIV testing.
Address: Wortley PM, CDC and Prevention, Atlanta, GA, 30333 USA
URL: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5006a2.htm

PMTCT/ARV