

WOMEN AND POWER

Issues Surrounding HIV/AIDS and Pregnancy

Lorraine Sherr

Department of Primary Care and Population Sciences
Royal Free Hospital School of Medicine
Rowland Hill Street, London NW3 2PF, United Kingdom

HIV and AIDS in women has emerged differently from that in other groups. This is not surprising given the established roles of women and the complexities of gender issues within societal structures. What is surprising is the length of time it took to understand and acknowledge this and the fact that despite the fact that HIV infection was present and prevalent in women from the start of the epidemic, the study and focus for this group emerged late in the day and only after concerted political effort and attention. Nakajima and Rubin (1991) carried out a review of HIV related studies in three leading journals over a time period of six years. They identified studies exploring psychosocial ramifications of HIV on a total sample of just under two and a half thousand individuals, yet only 13 subjects (0.5%) mentioned in all these studies were women.

Mann (1995) notes how HIV shows a trend of inevitable gravitation towards vulnerability. To what extent are women vulnerable and are pregnant women more so? With this vulnerability analysis in mind it is of interest to explore the way in which the epidemic has focused on women generally and on pregnant women particularly. The literature abounds with calls for empowerment of women. The problem with such a notion is that the concept of empowering presumes a passivity of women who need "power" and a corresponding active role for those who will provide the power. This has formed the central clamour in the evolving provision for women and requires some pause for thought. HIV, like any disease, brings in its wake an exposure of disease context. This reveals how women function within a society and how society responds to them. One of the problems of maintaining the call for empowerment means that it imposes a male response onto women. Indeed the constant description in the literature on the extent to which women lack power is in itself demeaning and may endorse and perpetuate the imbalance they describe (Sherr 1995). A more useful analysis is one which attempts to understand the differences in reaction, interpret these and perhaps learn from the female response and highlight the positive aspect of female expression and reaction to the HIV epidemic. Such an analysis provides a revealing data set, which may well help to relabel the notions of power. Women are less likely than men to abandon an HIV positive partner (Worth

1990). This is not a lack of power, but shows an enduring commitment to relationships irrespective of challenge. Women are less likely to withhold knowledge of their own status to a partner, but more likely to be kept in ignorance about a partner's status (Baingana et al 1995). This is not lack of power, it reflects varying degrees of honesty and dishonesty within relationships. Pregnancies were more common in couples where the male partner was HIV positive than when the female partner was HIV positive (Kamenga 1991). This is not necessarily a lack of power, but reflects male decision making and imposition and female values for procreation which may be held as more important to them than their own health. HIV positive women were more likely to report coercive sex (van der Straten et al 1995) and abuse. This can be labelled as a lack of power, but should more accurately be simply labelled as rape or male aggression. At risk, males were more likely to protect themselves than at risk females and infected males were more likely to place an uninfected woman at risk than were infected women to place a man at risk (Kamenga et al 1991). This is not simply a lack of power, it is selfishness. This study also showed that when the husband was HIV negative he was more likely to abstain from sex than when the wife was negative. When men were at risk within discordant couples (that is their female partner was positive) condoms were more likely to be used and this use sustained than when the male was the positive partner and they risked infecting their wife. Again this is not necessarily a lack of power, but can be better explained in terms of self centredness, self sacrifice and a lack of care and respect. More HIV negative husbands divorce their HIV positive wives than the other way round. This is again not a lack of power, more a different approach to fidelity and commitment. Pregnant women are more likely to be tested for HIV during pregnancy than their male partners (Sherr 1993). This can be viewed either as a lack of power, or simple discrimination.

PREGNANCY—A CASE IN POINT

The whole area of pregnancy forms an excellent case in point. The issue of gender and power may well be explained and explored by understanding how the policies and practices with regard to HIV testing in pregnancy have evolved world wide. Although pregnancy may be viewed as a female domain, a careful analysis of pregnancy approaches shows a bias towards the baby rather than the women as there are no parallel efforts in the areas of family planning, gynaecology or termination clinics. These would clearly address at risk female attendees. Although the data on pregnancy and particularly pregnancy outcome is relatively comprehensive in comparison to any other systematic data gathering on women, many of the variables are baby focused, with few exploring female experiences and these invariably tapering off immediately the baby is delivered.

HIV TESTING IN PREGNANCY—POLICY DILEMMAS

It is in this light that an interesting example of women, power and the evolution of HIV policy, care and understanding can be focussed on the problems of HIV testing during pregnancy. Clearly it is an issue which transcends HIV as the problems are relevant for most pregnant women (and hence couples) who enter the childbirth arena - thereby spreading the mantle of HIV issues to the broad population. It begs a number of questions in terms of HIV education for women, notably those in their reproductive years and places a number of approaches to disease management and research into perspective. Despite the fact that HIV testing, counselling and behaviour change have been fused as a strategy in containment in

HIV management and prevention (Higgins 1992), this fusion dissipates in pregnancy care where the test takes a dominant position, counselling merges into the background and behaviour change is rarely debated unless in the context of termination of that pregnancy (see Higgins et al for example, 1992). Few works explored sexual behaviour or behavioural change for pregnant women tested during pregnancy.

HIV testing has formed a cornerstone of the battle to contain, predict, understand and control the HIV epidemic. It is important that it is maintained as a means to approach the HIV epidemic, rather than an end in itself. As history unravels, the form of utility of the test, the mode of utilisation and operation and the impact of HIV testing has been a subject of much concern and debate.

The powers of a straightforward virological test bear contemplation. It has been the major reaction in many countries to the epidemic. It forms the basis and integral part of many medical procedures nowadays - infertility treatments and blood banks being excellent examples. Despite the fact that HIV has always been present in women and has always been represented in the heterosexual population, many of the early strategies, procedures and reactions were forged as a result of the sudden and violent impact on the society of gay men. Unlike many consumer groups, this particular group was disproportionately associated with consumer knowledge, involvement, high intellectual ability, socio economic and political power and thus the manifestation of testing protocols evolved somewhat differently to many other testing regimes.

HIV TESTING, COUNSELLING AND BEHAVIOUR CHANGE

Clear guidelines about testing, counselling, behaviour change, test result handling, clinic guidelines, procedure and policy have been formulated and are constantly under review and refinement (Green 1989, Bor and Miller 1992). Simultaneously the impact of HIV testing on women in general, and pregnant women in particular has emerged (Stevens et al 1990, Sherr 1991, Meadows 1992, McCann et al 1991).

All such testing attempts need to be viewed with bifocal lenses tuned to the background and foreground. What are the background bifocals and what constitutes the foreground? The background must surely be reproduction and women's rights generally, and the foreground relates to the particular issues highlighted by HIV disease. The two major strands for analysis are thus:

1. Ante-natal testing generally
2. The societal role and position of women

Scientific tests are not a new phenomenon. There are clear guidelines on how, when and in what way they should be considered and implemented. For example the WHO (1988) guidelines point to the needs for sensitivity and specificity, interventions available as a result of the outcome and reliable handling of such outcomes. The issues have been the subject of much debate when applied to obstetrics generally (Chalmers et al 1989).

DOES HIV TESTING AFFECT ANTE-NATAL CARE

For pregnant women, HIV may mark a dramatic change and focus on ante-natal care (Christie et al 1992). Although HIV only affects a few women, HIV testing in ante-natal care can potentially affect the entire pregnant population. The situation is also not static and the demands, needs and reactions may differ dramatically as advances in understanding, treatments and interventions change the boundaries, parameters and balances in the equation.

The challenge is to understand the role of ante-natal HIV testing, its impact, its focus, its ramifications. In order to do this, the opportunity to pause and reflect on current policies and procedures, errors and accomplishments, demands and challenges is timely. Only then can the cost benefit analysis from all perspectives be carried out and informed policies proceed.

PHASES OF TESTING PREGNANT WOMEN FOR HIV

Essentially HIV ante-natal testing has passed through a number of phases which are set out in the table below.

Phase 1	Indiscriminate testing—Test all resulting often in or from fear/panic
Phase 2	Testing for the sake of it typified by large scale data accumulation
Phase 3	Testing for the sake of the baby
Phase 4	Testing for treatment

Indiscriminate Testing

In the early days indiscriminate testing, without much consideration for form, procedure or ramifications was typified in the literature. Numerous studies showed extensive testing (See Sherr 1993 for a review). Their sheer enormity and volume were overwhelming, their inevitable outcome was simply HIV positivity rates and the attention to counselling was invariably non-existent or questionable (Sherr 1993). In these countless studies, involving enormous cohorts of pregnant women on every continent, only two (Wenstrom and Zuide-man 1989, and Johnstone et al 1989) even mention counselling. Yet the former study reports on the procedure carried out during labour. Quality counselling and decision making simply cannot take place during contractions.

The only clue to the possible trauma experienced by the population was the steady “non return for results”. Women were talking with their feet. The effect of such a phase was dominated by documenting rather than action. Few studies explored the reasons for non return, nor looked at issues of control within obstetric settings, the imbalance of power, and possible medical coercion within these studies. Indeed the situation could have even been exacerbated by the studies which attempted to explain the phenomenon of refusal by recording positivity rates among the test acceptors and test refusers (Barbacci 1991). Clearly refusal did not mean no testing, it simply became a surrogate marker for risk.

Testing for Documentation

This phase was followed sharply by a phase of testing for the sake of it. Large numbers of screening initiatives were seen, ostensibly to document the nature and range of the epidemic and invariably exploiting the strange situation for women whose antibodies were available for scrutiny via the blood of their newborn infants (Sherr 1993). A situation with no parallel for other (non pregnant) women or men. (Stegagno et al 1993, Ippolito et al 1991, Ades et al 1991, McLaws et al 1990, Novick et al 1989, Peckham et al 1990, Tappin et al 1991, Ippolito et al 1991)

Once again, the testing often lost sight of the action it was meant to trigger. For example in the UK two studies raised simultaneously at enormous cost. The PKU study reported by Peckham et al clearly monitored HIV prevalence in inner and outer London, showed an

alarming five fold increase over a period of 18 months and made a systematic set of recommendations. Instead of these receiving immediate and substantial funding, a Government Anonymous screening protocol was introduced. Rather than simply funding endless testing, surely the implementation of the recommendations of the Peckham data would have been a better use of resources.

Testing in the Interest of the Baby

The third phase showed, perhaps for the first time, a concerted well planned policy where testing was carried out in the well intentioned interest of the baby. The effect of this may have been to chisel a schism between the baby and the mother and set one against the other seeing the mother as the enemy of the baby rather than viewing both as a unit. The literature abounded with descriptions of women as “vectors” and ranges in vertical transmission was described in terms of mothers who were “transmitters” or “non transmitters”. Within this phase a number of issues are raised about infection control, vertical transmission (ECS 1992, ECS 1994) and a search for the understanding of interventions to limit vertical transmission. The emotional cost perhaps weighed by the gains.

Testing for Interventions

The fourth (and current) phase is one of testing for treatment interventions (Minkoff & Mofenson 1994). There was always the argument that testing had a limited place, but once treatment or interventions were available this would all change. Well the challenge now is to pose the question “has the time come?”

The interventions on the table are viewed almost entirely as medical, with scant attention to the psychosocial. More the pity. The medical include:-

Breast Feeding. (Dunn 1994, Nicoll et al 1994) - where increased rates of vertical transmission have been recorded in breastfed babies compared to bottlefed babies.

AZT Treatment. where vertical transmission was reduced from 25% to 8.3% in a random controlled trial with administration to the mother during pregnancy and labour and six weeks administration to the neonate (MMWR 1994, Kumar et al 1994, Connor et al 1994, Boyer et al 1994). This single study has triggered widespread change of policy despite the fact that it is unclear whether the control group compares with other centres (vertical transmission rates in Europe, for example are systematically lower than 25%), the effect of the treatment on the babies who would otherwise not have been infected is unknown, and the contributions of each particular intervention (pregnancy, labour or neonatal) is unclear. Furthermore the impact of the exposure to AZT on the mother’s future own disease course and management is also unclear.

Vitamin A this intervention is currently under exploration as a result of the findings of vitamin imbalances and the potential for a cheap and effective intervention.

C Section. vertical transmission rates have been compared in women delivered vaginally and those delivered by caesarean section. The findings have been mixed with benefits and no benefits recorded, culminating in a large meta-analysis which showed an overall advantage of the procedure (Tovo et al 1996, Villari et al 1993, Dunn et al 1994, Tovo 1993, ECS 1994). Again the problems associated with this intervention relate to the lack of a random prospective trial, the possible harms associated with the procedure (

Semprini et al 1995), the psychological sequelae of this intervention and the possible hazards to the mother.

Pregnancy, Labour/Delivery Handling. a variety of procedures have been explored in terms of their potential contribution to vertical transmission. These include careful assessment of amniocentesis, chordocentesis, chorion villus sampling, fetal scalp electrode monitoring in pregnancy and episiotomy (Minkoff and Mofenson 1994)

Lavage. this procedure is currently under examination for its potential contribution to the reduction of transmission during vaginal delivery and may afford an easy to utilise and cost effective intervention if proven effective.

Termination of Pregnancy. For many health care providers termination of pregnancy is seen as a clear option triggering screening policies. However, for women this is not so clear. Women who test positive do take up the procedure of termination, but this tends to be the minority (Sherr 1993) and many such women return within 18 months with a subsequent pregnancy (Sunderland 1992). For those women who actively conceive in full knowledge of their HIV status this is not a pathway usually explored.

The intensity and intricacies of the debate surrounding each of the interventions are so enormous that there has been little movement beyond this phase.

PSYCHOLOGICAL RAMIFICATIONS - OVERLOOKED AND UNDERFUNDED

A focus on the psychosocial, to date, may paint a different picture.

The conclusions from this literature illustrate the following:-

- HIV testing is traumatic and is often associated with negative psychological sequelae irrespective of test outcome.
- Pre and post test counselling procedures have a clear role in preparation, behaviour change, risk reduction as well as informed consent and there is no reason to believe that this should not be extended into pregnancy.
- Women in ante-natal care are vulnerable and the overriding concerns for their baby and their own livelihood may make them willing to agree without question to many procedures.
- The costs of the interventions may be enormous including the implementation costs of population screening with its allied counselling and training requisites as well as the associated monitoring, early intervention and prophylactic costs of treating those identified with the virus.
- Subsequent pregnancy and termination rates are unpredictable. It is shortsighted to assume that HIV is a predictor of termination and that initial termination does not preclude subsequent conceptions and pregnancies to term. Although only about 10% of women undergo terminations, the associated support and ramifications of the procedure must not be overlooked.
- Men are rarely (indeed all but two studies) examined. This is a limited approach given that most women in the world are infected within relationships they believed to be monogamous. Van de Pere (1994) has also documented an increased risk of vertical transmission for women with multiple sexual partners during pregnancy compared to those with single partners.

The two studies on men (Semprini and Ryder) are unique in the literature. Ryder compared 335 newborn children of 327 HIV positive mothers and 341 newborns of 337 HIV negative mothers and fathers were studied over 3 years. Families in which the mother was positive experienced a five to 10 fold higher maternal, paternal and early childhood mortality rate than families where the mother was negative.

- Finally, the psychology of human functioning, decision making and desires for procreation may result in an unpredictable course to the rate of pregnancies, even in the presence of HIV. Indeed, the impact of the new interventions may be to increase rather than decrease vertical transmission as many women with HIV who were postponing pregnancy “until knowledge improved” may believe the time has come. The ramifications of the interventions need as much resourcing as the interventions in the first place.

The challenge for obstetric care, those involved in educating and caring for women generally and pregnant women specifically now need to know where things will move to? Clearly the literature is making a number of factors clear:-

1. Pre and post test counselling are haphazard in pregnancy, occurring with varied skill and frequency, in the presence of detailed or non-existent training and taking a variety of models ranging from brief information provision to detailed option exploration and psychological preparation.
2. Informed consent for this population may be violated
3. Informed consent or even counselling during contractions or vaginal examinations must be unethical
4. The content of counselling which does occur is unclear
5. The training for counsellors is unclear
6. The efficacy of counselling is unclear
7. The difference between counselling and informed consent is unclear
8. The opportunities for risk reduction, safe sex and behaviour change messages is usually overlooked in the ante-natal population although deemed vital in STD populations
9. Policies may well be at the whim of individual consultants, irrespective of the best protocols, intentions and training packages
10. Counsellors are often drawn from the medical and nursing professions who may be unwilling, untrained or unskilled in the task
11. If counsellors tried their hand (with equal lack of training) at delivering babies there would be an outcry
12. The range of other ante-natal tests and their handling cannot be overlooked in the debate
13. The funding, financial and cost implications of any broad antenatal HIV testing policy are enormous, invariably overlooked or underfunded - simply identifying the 80% of inner London HIV positive pregnant women would require an 80% increase in budget to handle them - this at a time in the UK when the care budget at my hospital has been cut by nearly 8%.

MENTAL HEALTH ISSUES

The mental health implications of HIV screening have been poorly documented, poorly explored and even more poorly provided for (Sherr 1995, Lester et al 1995). The

complexities of HIV issue differ in the presence of multiple infection (Melvin and Sherr 1995). Pregnancy, by definition, means multiple infection.

HIV tests are like no other ante-natal test not only in the nature of the virus but because it carries a fatal diagnosis for the mother as well and it is a stigma bound illness.

ALWAYS THE PATIENTS AND NEVER THE STAFF

All discussion focused purely on the "patient" population is limited and the HIV status of carers must also enter the debate. This is highlighted in the numerous highly publicised cases of HIV positive carers where all women are hurriedly called in for testing after HIV is revealed. This often causes panic and fear despite the lack of evidence of risk to such women and the failure of policy to address these problems adequately.

A fascinating example is raised by the question of testing women who wish to deliver their babies in a birthing pool. At one major London teaching hospital all women who want a water birth are required to test for HIV while all those requiring a bath or shower - irrespective of episiotomy, C Section wound or lochia are not tested. Staff who enter the birthing pool, irrespective of lesions, are not required to be tested.

WHERE DOES THIS LEAVE WOMEN?

So where does it leave women? Clearly the starting point must be to gather together the nature and range of testing procedures, policies and protocols (Davison et al 1989); gather together studies, especially those explore consumer impact, of such policies and procedures; to set out clearly articulated outcome measures so that realistic, appropriate and positive goals can be integrated into the methodology. This would extend the debate from containment, treatment and epidemiology to prevention, early intervention and mental health/behaviour issues. A clear compilation of obstacles and hurdles to the implementation of such policies would be helpful to

- pre-empt problems,
- facilitate implementation of policies
- and to understand not only the short term, but the medium and longer term effects of these policies.

At the same time there is a moral and ethical obligation to ensure, at all times, that whatever policies and procedures are in place, these are based on clearly articulated premises, these are concurred with by the recipients, i.e. the pregnant women and their rights are jealously guarded. This is a particular onus on the shoulders of caregivers as it is clearly documented that HIV gravitates to vulnerability and vulnerability is clearly an issue in this population. The vulnerability ticket has been the selling point to protect the unborn or newly born infant, but one should argue that pregnant women themselves, may have elements of vulnerability as well.

AIDS and HIV infection may undermine the advances that women have already made. The next decade will witness a growing challenge to the AIDS weary world. Innovative ways will be needed to provide care for women. The 20th century has witnessed major upheavals and changes for women. It is in this milieu that HIV emerges. Good counselling addresses both the benefits and costs of HIV testing and pregnancy decision making and may be a process to facilitate informed choice. Yet the large size of the pregnant population and the lack of good counselling skills in health care professionals often reduces the process to a

short dialogue at best and coercion at worst. Often counselling is based on the presumption that HIV positive women should not have babies. For example Ryder noted "the disappointingly high fertility rates in seropositive women who had been provided with a comprehensive programme of HIV counselling".

HIV testing of women of reproductive age is a complex issue. There are many unanswered questions surrounding the way such testing should be carried out, the counselling demands surrounding the test itself and the wide ramifications of HIV if identified at this stage. As social stigma decreases, medical interventions increase and prophylaxis becomes more established, HIV testing may well increase. This is all the more reason to take into account the counselling issues.

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REFERENCES

- Ades A Parker S Berry T (1991) Prevalence of maternal HIV 1 infection in Thames Regions results from anonymous unlinked neonatal testing *Lancet* 337 p 1562-65
- Baingana G Choi KH Barrett DC Byansi R Hearst N (1995) Female partners of AIDS Patients in Uganda reported knowledge perceptions and plans *AIDS* 9 Suppl 1 S 15-19
- Bor R Miller R and Goldman E (1992) *Theory and Practice of HIV Counselling - a systems approach* Cassell Publishers, London
- Boyer P Dillon M Navaie M Deveikis A Keller M O'Rourke S Bryson Y (1994) Factors predictive of maternal fetal transmission of HIV 1 *JAMA* June 22/29 vol 11271 no 24 pp 1925-30
- Chalmers I Enkin M Keirse M (1989) *Effective care in pregnancy and childbirth* Oxford University Press Oxford
- Connor E Spelling R Gelber R et al (1994) Reduction of maternal infant transmission of HIV 1 with Zidovudine treatment *N Engl J Med* 331 p 1173-1180
- Chrystie I Palmer S Kenney A Banatvala J (1992) HIV seroprevalence among women attending antenatal clinics in London *Lancet* 339 p 364
- Chrystie I Wolfe C Kennedy J Zander L Tilzey A Banatvala J (1995) Voluntary named testing for HIV in a community based antenatal clinic a pilot study *BMJ* Vol 311 p928-31
- Davison C Ades A Hudson C Peckham C (1989) Antenatal Testing for HIV *Lancet* Dec 16 p 1442-4
- Dunn D Newell M Mayaux M (1994) Mode of delivery and vertical transmission of HIV 1 a review of prospective studies *J Acquir Immune Defic Syndr* 7 p 1064-6
- European Collaborative Study (1992) Risk factors for mother to child transmission of HIV 1 *Lancet* 339 p 1007-112
- European Collaborative Study (1994) Natural History of vertically acquired HIV -1 infection *Pediatrics* Vol 194 no 6 p 815-9
- European Collaborative Study 1994 Caesarean section and risk of vertical transmission of HIV 1 infection *Lancet* 343 p 1464-7
- Green J and McCreaner A (1989) *Counselling in HIV infection and AIDS*, Blackwell Scientific Publications, Oxford
- Higgins D Galvott C O'Reilly K Schnell D Moore M Rugg D Johnson R (1991) Evidence for the effects of HIV antibody counseling and testing on risk behaviours *JAMA* 266 17 p 2419-2429
- Ippolito G Costa F Stegagno M Angeloni P Angeloni U and Guzzanti E (1991) Blind serosurvey of HIV antibodies in newborns in 92 Italian Hospitals. *Jnl of Acq Immun Defic Syndr* 4 p 402-7
- Johnstone F Brettler R MacCallum L Mok J Peutherer J Burns S (1989) Women's knowledge of their HIV antibody state its effect on their decision whether to continue the pregnancy *BMJ* 300 p 23-24
- Kamenga M Ryder R Jingu M (1991) Evidence of marked sexual behaviour change associated with low HIV 1 seroconversion in 149 married couples with discordant HIV 1 serostatus - experiences at an HIV counselling center in Zaire *AIDS* 5 p 61-67
- Kumar R Hughes P and Khuranna A (1994) Zidovudine use in pregnancy a report on 104 cases and the occurrence of birth defects *Jnl of Acquired Immune Deficiency Syndrome* 7 p 1034-1039

- Lester P Partridge J Chesney M and Cooke M (1995) The consequences of a Positive prenatal HIV antibody test for women *Jnl of Acq Immune Defic Synd* 10 341–349
- Mann J (1995) AIDS Education and Prevention, IX International Conference, Jerusalem, Israel, Plenary Address
- McCann K Wadsworth E (1991) The experience of having a positive HIV antibody test *AIDS Care* vol 3, 1, p 43–53
- McLaws M Brown A Cunningham P Imri A Wilcken B and Cooper D (1990) Prevalence of maternal HIV infection based on anonymous testing of neonates Sydney 1989 *Med J Aust* 153 p 383–6
- Meadows J Jenkinson S Catalan J Gazzard B (1990) Voluntary HV testing in the antenatal clinic differing uptake rates for individual counselling midwives *AIDS Care* 2 p229–234
- Melvin D and Sherr L (1995) HIV infection in London Children psychosocial complexity and emotional burden *Child Care health and development* Vol 21 no 6 p 405–412
- Minkoff H and Mofenson M (1994) The role of obstetric interventions in the prevention of pediatric HIV infection *Am Jnl of Obstetrics and Gynecology* vol 171 no 5 p 1167–75
- MMWR (1994) Birth outcomes following Zidovudine therapy in pregnant women *JAMA* July 6 vol 272 no 1 p 17
- Nakajima G and Rubin H (1991) Lack of racial gender and behaviour risk diversity in psychiatric research on AIDS HIV in the US VII Int Conference on AIDS 7 p 193
- Nicoll A Newell M Praag E Van de Perre P and Peckham C (1995) Infant feeding policy and practice in the presence of HIV 1 infection *AIDS* 9 p 107–119
- Novick L Berns D Stricof R Stevens R Pass K and Wethers J (1989) HIV serprevalence in newborns in New York State *JAMA* 26 1 p 1745–50
- Peckham C edder R Briggs M (1990) Prevalence of maternal HIV infection based on unlinked anonymous testing of newborn babies *Lancet* 335 p 516–519
- Ryder R Nsuami M Nsa W Kamenga Mbadii N Utshudi M Heyward W (1994) Mortality in HIV 1 seropositive women, their spouses and their newly born children during 36 month of follow up in Kinshasa Zaire *AIDS* 8,5 p 667–672
- Semprini A Castagna C Ravizza M Fiore S Savasi V Muggiasca ML Grossi E Guerra B Tibaldi C Scaravelli G Prati E and Pardi G (1995) The incidence of complications after caesarean section in 156 HIV positive women *AIDS* 9 p 913–917
- Sherr L (1991) HIV and AIDS In mothers and Babies, Blackwell Scientific Publications, Oxford
- Sherr L (1993) HIV testing in pregnancy in C Squire Ed Women and AIDS psychological perspectives London Sage Publications
- Sherr L (1995) Psychosocial Services of providing care for women with HIV infection in HIV infection in Women Minkoff H DeHovitz J and Duerr A (ed) 1995 Raven Press pp107–124
- Sherr L Jefferies S Victor C and Chase J (1996) Ante natal HIV testing which way forward *Psychology Health and Medicine* vol 1 no 1 p 99–111
- Stegagno M Ippolito G Costa F Aebischer M Guzzanti E (1993) Anti HIV 1 antibodies prevalence in parturients through newborn testing results of the Italian Anonymous serosurvey *Eur J Epidemiol* 0392 - 2990 p 430–435
- Stevens A Victor C Sherr L Beard R (1989) HIV testing in antenatal clinics the impact on women *AIDS Care* 1,2 p 165–171
- Sunderland A Minkoff H Handte J Morosso G Landesman S (1992) The impact of HIV serostatus on reproductive decisions of women *Obstet Gynecol* 79 6 p 1027–31
- Tappin D Girdwood R Follet E Kennedy R Brown A Cockburn F (1991) Prevalence of maternal HIV infection in Scotland based on unlinked anonymous testing of newborn babies *Lancet* 337 p 1565–7
- Tovo P (1993) Caesarean section and perinatal HIV transmission what next? *Lancet* 342 p 630
- Tovo P de Martino M Gabiano C Galli L Cappello N Ruga E Tulliso S Vvierucci A Loy A, Zucotti G Bucceri A Plebani A Marchisio P, Caselli D Liviodotti S Dallacasa P (1996) Mode of delivery and gestational age influence perinatal HIV 1 transmission *Jnl of Acq Immune Deficiency Syndromes and Human Retrovirology* 11 p 88–94
- Van der Straten A King R Grinstead O Serufilra A Allen S (1995) Couple communication sexual coercion and HIV risk reduction in Kigali Rwanda *AIDS* 9,8 p 935–944
- Villari P Spino C Chalmers T Lau J Sacks S (1993) Caesarean section to reduce perinatal transmission of HIV Online *J Curr Clin Trials* 2, doc 74
- Wenstrom K and Zuidema L (1989) Determination of the seroprevalence of HIV infection in gravidas by non anonymous versus anonymous testing *Obstet Gynecol* 74 4 p 558–61
- Worth D (1990) Women at high risk of HIV infection in Ostrow D ed Behavioural Aspects of AIDS New York Plenum Medical