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FRONTIERS OF MIDWIFERY CARE: STDs/HIV/AIDS IN SAFE MOTHERHOOD

Report of a collaborative
ICM/WHO/UNICEF/UNFPA/UNAIDS
pre-Congress workshop
Manila, Philippines, 19-22 May 1999

International Confederation of Midwives
UNAIDS
World Health Organization
Geneva
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United Nations Children's Fund

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- the financial support that made it possible for midwives to travel from remote corners of the world to attend this Workshop. The list of participants is given in Appendix A.

- the technical support and expertise provided to this Workshop.

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EXECUTIVE SUMMARY

HIV/AIDS is one of the most challenging issues confronting midwives worldwide. No country is untouched by the epidemic that has many social, cultural and economic implications and that poses an enormous threat to the health of families and whole communities. The HIV/AIDS epidemic has affected the lives of millions of people and their families globally and now threatens the social and economic development of many nations. HIV/AIDS predominantly affects people in their most economically productive years. Their subsequent inability to work outside the home, to generate an income or to care for children, tend gardens or pursue an education has meant that many are facing enormous hardships and difficulties. In some places as many as 30% of all pregnant women are HIV-positive.

There is no vaccine to protect people against HIV. Neither is there a cure. Prevention through education, awareness and behaviour change, is the only weapon against HIV infection. Preventing new infections, particularly in infants born to women living with HIV, is a challenge for midwives globally. Compounding this situation, sexually transmitted infections (STIs)[1], with significant consequences for the lives and health of women and their babies, are on the increase.

For these reasons the International Confederation of Midwives' (ICM) Collaborative pre-Congress Workshop was designed to strengthen midwives' contribution to the care of women and babies through the prevention and management of STI/HIV/AIDS. The Workshop was sponsored by ICM, UNAIDS, UNFPA, UNICEF, and WHO and more than 50 midwives from 24 countries participated.

Goals and objectives

The specific objectives of the Workshop were:

1. To identify sexual health problems related to STI/HIV/AIDS which increase the risk of maternal and neonatal mortality and morbidity at global, national, community and local level;

2. To explore the socio-cultural-economic realities which impact on the lives of women and their families, and midwives, with relation to STI/HIV/AIDS;

3. To review the knowledge, skills and attitudes required by midwives in practice:

    - To discuss current basic areas of practice;
    - To examine the range of emergent responses to STI/HIV/AIDS:
        - client-friendly services;
        - prevention of mother-to-child transmission;
        - prevention of occupational exposure;

[1] Since this Workshop, WHO distinguishes between STIs and STDs and STI is the generic term of preference. However, the term STD has been retained where it was used in the original texts prepared for the Workshop.

4. To identify strategies, policies and protocols to combat STI/HIV/AIDS at national and local level;

5. To explore innovative approaches to care that midwives can use to protect themselves from infection and to promote safe practices;

6. To seek the means of educating women to protect themselves and their families;

7. To formulate action plans which will:

    - strengthen midwifery input into safe motherhood and STI/HIV/AIDS strategies for the management of infectious disease;
    - improve local practice with regard to infection prevention and management.

Before the Workshop

Prior to the Workshop, participants received a background paper which offered a conceptual framework for the Workshop, as well as providing a synthesis of research evidence that would be a basis for discussion. In addition, a series of leaflets gave participants essential information on specific topics such as STIs, HIV/AIDS, Hepatitis B and C, universal precautions and the development of policies and protocols.

During the Workshop

A wide range of interactive approaches enabled the participants to work methodically through the objectives. Individual action plans specific to each midwife's own situation, resources and context were developed throughout the Workshop, as each Objective was addressed.

The Action plans

The individual action plans were to be implemented on the participant's return home. Plans varied according to professional background, situation and context, perceived priorities and personal background. The main theme in the action plans centred around the need for education, training and curriculum development.

Some examples of activities identified in the individual action plans included:

- sharing the knowledge and skills gained in the pre-Congress Workshop with colleagues and others including the district health management team;
- observing practices in the clinical setting and gathering data on the need for education and training;
- conducting training sessions/workshops on STI/HIV/AIDS for midwives and other health workers;
- improving local practice with regard to infection control, management of disease, establishing an infection control policy committee and developing client-friendly services;
- holding regular meetings with various community groups to discuss STI/HIV/AIDS;
- conducting research and evaluation activities;

- developing links and collaborative arrangements with other sectors including local government units, the Ministry of Health, universities, hospitals and donor agencies.

Conclusion

This pre-Congress Workshop offered midwives from many parts of the world the chance to come together and discuss an issue which has considerable significance for the health of society and which is of great concern to them. STI/HIV/AIDS are epidemics with serious ramifications for the health of many nations. Midwives have the potential to improve prevention and care for women with these conditions but are frequently ill-prepared to assume this role.

The Workshop provided a forum for sharing knowledge and information. It facilitated problem-solving for particular situations and encouraged critical reflection on the practices and policies which have an impact on infection rates and transmission. The overriding conclusion of the Workshop was that there is a need to strengthen midwives' response to the epidemic at both a programmatic and an individual level through further and ongoing education, through listening and learning from others, and through mobilizing increased resources.

Making a difference to a worldwide problem such as STI/HIV/AIDS will only come about with the energy, enthusiasm, knowledge and commitment of individuals who join together to work towards a common goal. This Workshop strengthened midwives' conviction that by becoming better informed, by developing stronger networks, and by acting strategically they can make a vital contribution to the improvement of women's health around the globe.

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1. INTRODUCTION AND OVERVIEW

Human immunodeficiency virus* (HIV) and the subsequent development of the acquired immunodeficiency syndrome (AIDS) are one of the most challenging and confronting issues facing midwives all over the world. No country is untouched by HIV and the epidemic of sexually transmitted infections, which both have social, cultural and economic implications as well as posing an enormous threat to the health of families and whole communities.

Midwives are usually the primary provider of care for women and infants and so are ideally placed to have a strong role in education, prevention of infection and ongoing care. Prevention, through education, awareness and behaviour change, is the only weapon against HIV infection. Preventing new infections in infants born to women living with HIV is a challenge for midwives and others who care for pregnant women anywhere in the world. Midwifery care can make a difference to the prevention of HIV and STIs and thus contribute to an improved outlook for women.

This pre-Congress Workshop (the fifth of its kind) was designed to strengthen midwives' contribution to the care of women and babies through the prevention and treatment of STI/HIV/AIDS.

1.1 Goals and objectives

The specific objectives of the Workshop were:

1. To identify sexual health problems, particularly related to STI/HIV/AIDS which increase the risk of maternal and neonatal mortality and morbidity at global, national, community and local level;

2. To explore the socio-cultural-economic realities which impact on the lives of women and their families, and midwives, with relation to STI/HIV/AIDS;

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    - To discuss current basic areas of practice;
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        - client-friendly services;
        - prevention of mother-to-child transmission;
        - prevention of occupational exposure;

4. To identify strategies, policies and protocols to combat STI/HIV/AIDS at national and local level;

*Throughout this document HIV refers to HIV-1, since cases of mother-to-child transmission of HIV-2 are rare.

5. To explore innovative approaches to care that midwives can use to protect themselves from infection and to promote safe practices;

6. To seek the means of educating women to protect themselves and their families;

7. To formulate action plans which will:

   - strengthen midwifery input into safe motherhood and STI/HIV/AIDS strategies for the management of infectious disease;
   - improve local practice with regard to infection prevention and management.

1.2 Purpose of this report

This report presents a summary of the Workshop. It can be used to further develop midwives' knowledge about STI/HIV/AIDS and presents a range of information in a variety of formats. It also highlights the challenges that midwives face in many countries of the world and gives a unique perspective on issues of education, practice and policy development.

Each objective is presented with a brief explanation of the process that was undertaken to achieve the outcome. This is included so that future workshop facilitators can draw on the teaching and learning strategies that were used and adapt them for their local situation.

1.3 Background

In 1987, the International Confederation of Midwives (ICM), the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) joined together to hold the first pre-Congress Safe Motherhood Workshop. This Workshop was held in The Hague and identified the vital interventions required to reduce maternal mortality and morbidity. The importance of developing and enhancing midwifery competencies was recognized, particularly in the management of life threatening conditions such as eclampsia, haemorrhage and sepsis (ICM/WHO/UNICEF, 1987).

The second Pre-Congress Workshop was held in Kobe, Japan in 1990 and focused on the development of a community-based educational framework to strengthen maternity services within existing primary health care systems (ICM/WHO/UNICEF, 1990). The framework provided the basis for which the Midwifery Education Modules were developed and field-tested by WHO (WHO, 1996).

Three years later, the third pre-Congress Workshop was held in Vancouver, Canada. This time the focus was on how midwives can contribute to improved safe motherhood outcomes through the measurement and promotion of quality in maternity services. The outcome of the Workshop was the development of a practical tool for quality assurance in midwifery (ICM/WHO/UNICEF, 1994).

In 1996, the pre-Congress Workshop was held in Oslo, Norway. Midwives from 16 countries came together to develop strategies to strengthen midwifery's contribution to

improving the health of women and their babies through leadership and participation in political processes (ICM/WHO/UNICEF, 1997).

1.4 Process

This most recent workshop, held in Manila, continued in the logic of its predecessors but specifically focused on the issues surrounding STI/HIV/AIDS. Fifty midwives from countries that were either currently affected by these epidemics or potentially likely to be affected in the near future were selected for attendance. Midwives were particularly drawn from countries with a high prevalence of HIV, including those in sub-Saharan Africa and South-east Asia (Appendix A). Speakers were drawn from countries that had significant experience with the HIV epidemic, including Malawi and South Africa (Appendix B).

Preparatory work

A background paper (Appendix C) was prepared and distributed to all participants, group facilitators and speakers prior to the workshop. In addition, a series of leaflets was prepared and distributed (Appendix D). These leaflets were designed to give participants an overview of a range of topics including STIs, HIV/AIDS, Hepatitis B and C, universal precautions and the development of policies and protocols. The background paper and the leaflets provided participants with the basic information and principles that would be used during the workshop and were linked to each of the workshop objectives.

The design of the workshop meant participants were invited to do some preparatory work. This included the provision of ‘mapping information’ (Appendix F) which was displayed during the workshop. Preparation also included the development of ‘real life’ case studies in preparation for the discussion on Objectives 1 and 2 and examples of policies. In order to provide the participants with a range of examples of educational and promotional material, they were asked to bring pictures, books, posters, leaflets or teaching aids that they used either nationally or locally. These were shared with their participant colleagues during the workshop.

Workshop process

The workgroup sessions built on the background paper, the leaflets and the information in the plenary sessions. The program was specifically designed to address each objective in turn, with Objective 7 being the link between the sessions. This meant that the content of the workshop was always directly relevant for each individual participant. A variety of teaching strategies were used including plenary and group work, posters and case discussions.

2. OBJECTIVES

2.1 Objective 1

To identify sexual health problems, particularly related to STI/HIV/AIDS which increase the risk of maternal and neonatal mortality and morbidity at global, national, community and local level

Process

This objective was addressed through a plenary session from Sandra Anderson (UNAIDS) followed by a group work session using participants' case studies. The five workgroups were asked to consider the following questions in relation to their case studies:

1. how did you first become aware of the HIV serostatus of the women?

2. what are the advantages and disadvantages of knowing the HIV serostatus of the women?

3. what were the major differences in the physical and emotional status of the HIV-positive and HIV-negative women?

4. what were the major differences in the challenges to provide quality physical and emotional care to the HIV-positive and HIV-negative women?

Using case studies to address this objective was a useful process. It allowed and encouraged the participants to explain and give examples from their own contexts and this diversity of experience and knowledge was invaluable.

Content

In 1998, it was estimated that 16 000 new HIV infections occurred globally each day. An expanded and comprehensive response is necessary to fight this epidemic including leadership, adequate funding, appropriately targeted approaches that are technically and ethically sound, ensuring affected people are involved in campaigns, and dispelling of myths. Prevention strategies must also be developed on multiple levels.

The case studies highlighted the range of HIV testing facilities that are available to women around the world. For example, in some provinces in India and Indonesia, risk factors are assessed and those at risk offered testing whereas in Malawi, only sentinel testing is conducted. There was also a range in what constituted consent and voluntary counselling and testing among countries. It would appear that some women have no choice about being tested.

Knowledge of HIV status was seen as advantageous as it provides an opportunity for education and information. It helped in the planning of services, providing treatment opportunities and meant that appropriate support systems could be set up for those infected in the community.

A number of groups identified knowledge of status as being important to prevent occupational exposure and infection. The participants identified that while universal precautions should be applied to everyone, sometimes it is impossible due to the lack of resources.

Knowledge of HIV status was also seen as disadvantageous. This was due to fear and ignorance about the infection, problems with the lack of resources, the potential discouragement of breastfeeding, and the adverse reaction to those identified as being HIV-positive, for example, violence, isolation, lack of privacy/confidentiality, stigmatism and discrimination.

It was reported that while many HIV-positive people denied their illness, they were still concerned about the future for themselves and their families. HIV-positive people often suffered depression, anxiety, decreased security in relationships, isolation, stigma and fears about the future especially about who will care for their children. HIV was often seen as bringing shame to the family, and resulting in discrimination and isolation. There are also concerns that ill-health will reduce income earning capacity; and there are potential nutritional problems for non-breastfed children.

A number of challenges were identified as being important. These include the role of the health system in providing HIV services, counselling, and social support networks; access to these services and quality of care; multisectorial involvement including religious groups, NGOs, government ministries; appropriate resources; continuing education for midwives, other health care workers, women and their families, with special emphasis on men in the community.

2.2 Objective 2

To explore the socio-cultural-economic realities which impact on the lives of women and their families, and midwives, with relation to STI/HIV/AIDS

Process

Dorothy Namate drew on her experience as Country Director for Project HOPE in Malawi to discuss the sociocultural realities of the HIV epidemic in a plenary session. The participants and facilitators then re-formed their five workgroups and used a Visual Imaging Participatory Process to address the following:

1. Can you identify the strengths and opportunities that knowledge of social, cultural and economic realities presents for a midwife?

2. Can you identify the challenges that are caused by these realities?

3. What sort of solution would you have, as midwives, to these challenges?

The responses were written on different pieces of coloured paper and pasted onto one of the workshop walls under the three questions.

Content

There is a loose definition of family in some cultures (e.g. extended family, polygamous situations) and this impacts on issues relating to STI/HIV/AIDS. In some areas, marriage bonds are seen as weak, for example, in some regions in Malawi, women get out of marriage easily. Marriage, in some cultures, is seen as basically for sex and childbearing, not for partnership and if children do not result, break-up is common or polygamy practised. Reproductive decision-making is often male centred with women lacking the opportunity to make decisions about childbearing. In some areas, the reluctance of men to wear condoms and the poor acceptability of female condoms impacts on STI/HIV/AIDS transmission. In a Malawian study, the women did not use the female condom as their partners were unwilling to have sex using the device. In many cultures, children are seen as valuable assets. Families without children are often considered incomplete and therefore women will strive to have children even if they know that the risks for HIV transmission are high.

Initiation rites for young boys and girls are meant to prepare young people for the acceptable behaviour in that culture. However sex is often taught and encouraged during these rites and poses a risk for STI/HIV/AIDS transmission. Death rites, which often occur with the death of the husband, are usually secretive. The widow is expected to have sex with somebody in order for his spirit to be released. The time frame for this varies being either immediately before or up to three days after burial, or after some months so that the women can be released for re-marriage. This practice again has ramifications for STD/HIV/AIDS transmission.

When a widow is left with the children, the husband's relatives may take her property, a practice known as 'property grabbing'. This can place women in a very difficult situation with no other means of support and may force them to take up commercial sex work. This also creates problems for the children who may be compelled to leave school with a subsequent drop in employment opportunities. In some tribes, the brother of the husband automatically inherits his widow. Women often have little choice about this process and those who refuse may suffer penalties. This inheritance occurs without knowledge of the woman's HIV/STI status.

Some traditional medicines utilize problematic modalities, for example, the need to have sex in order for the medicines to work. Magic can also be used to coerce women into having sex.

The labour force in many countries affected by HIV/AIDS is dying early and many of these are nurses and midwives. For example, in Zambia it was reported that 34% of nurses are infected with HIV. Funding has been reduced from donors and economic institutions and consequently health services have suffered. HIV has compounded the already reduced resources. There is also an increased level of absenteeism reported (up to 15% of time lost in some countries). This is due to individual illness as well as time spent caring for others who are ill. Staff replacement due to absenteeism is often by less experienced personnel. The capacity for physical work, especially manual labour work, is also reduced and there is a subsequent increase in the number of non-productive people in the community.

Workgroup session

Many opportunities for midwives were identified. For example, as pregnancy is an opportune time to have contact with women, participants saw that they can use their knowledge and skills to provide effective, competent and holistic midwifery care, encourage women to share specific concerns, identify the vulnerable and those at risk and be agents for change.

Participants felt that many issues challenged these opportunities. These included policies, laws, religion, gender discrimination, cultural practices, disempowerment of women, lack of material and human resources, poverty, malnutrition and illiteracy, communication barriers, lack of knowledge of HIV, scarcity of counselling skills, fear, stigma and violence.

A number of factors were given as being part of the solution to these challenges. These included full community participation and leadership, political will and collaboration, use of the mass media, empowerment of women and girls, continuing education of midwives, use of special days and/or places of worship, the elimination of violence, team work with other midwives and other health care workers and courage.

2.3 Objectives 3 & 5

To review the knowledge, skills and attitudes required by midwives in practice:

To discuss current basic areas of practice;

To examine the range of emergent responses to STI/HIV/AIDS:

- **client-friendly services;**
- **prevention of mother-to-child transmission;**
- **prevention of occupational exposure.**

Process

The review of knowledge, skills and attitudes and the discussion on the three areas were addressed using posters, team teaching and group work with feedback. Participants were asked to prepare a poster in small groups that they might use in teaching. The issues/questions about which the posters could be made were taken from the background document and the leaflets. Groups could choose which areas they addressed. At the end of the session the posters were displayed around the room and the participants were asked to stand near their poster and describe it.

Three concurrent groups were then conducted for one hour each. These sessions were (1) client-friendly services, (2) prevention of mother-to-child transmission and (3) prevention of occupational exposure. Participants rotated through the three workshop sessions.

Content

Prevention of mother-to-child transmission

Much of the information presented in this session can be found in the background document and the leaflets prepared for the workshop.

Practical issues involved in voluntary counselling and testing

Voluntary counselling and testing should be integrated into family planning services and must utilize knowledgeable counsellors, who are confident, dedicated and empathic. Pre-test counselling enables women to make informed decisions about testing. Pre-test counselling can be done in groups or by utilizing lay counsellors when resources are limited. Post-test counselling involves continued counselling, advice and care and the counsellor must be prepared to deal with the feelings of the person and know where she/he is going, and who is with them after the person is told the results. Results should never be given on a Friday or by telephone. Post-test counselling for those found to be HIV-negative must include information on how to prevent infection.

Interventions to reduce mother-to-child transmission of HIV

Some interventions are universal and do not require identification of HIV status. These include:

1. effective obstetric and midwifery care avoiding invasive procedures, such as artificial rupture of membranes or routine episiotomy;

2. prevention of new infection in women;

3. treatment of STIs;

4. vaginal cleansing, especially with prolonged ruptured membranes;

5. Vitamin A and micronutrient supplementation.

Other interventions are specific to women who have been identified as HIV-positive. These include:

1. antiretroviral therapy;

2. elective caesarean section;

3. modified infant-feeding practices.

Prevention of occupational exposure to HIV

Participants identified practices that currently put them at risk of occupational exposure. These included needle stick injuries and blood splashes, for example, during suturing, insertion of IV lines or blood collection. Other practices included the incorrect disposal of sharps and sharps containers and improper sterilization. The lack of appropriate protocols/policies, and/or people following inappropriate practices or protocols, and the lack of correct equipment or protective clothing were also identified as potentially placing midwives at risk. Many of these issues fell into two main categories, namely personal

issues and public/global issues. Midwives felt that they had opportunities to at least impact on some of the personal issues.

Universal precautions were seen as being used well when there was a structured environment with stability, resources, knowledge, supervision and support and when clear policies and protocols were used. Client expectations or demands that universal precautions should be followed also influenced their use, as did staff knowledge, motivation and adequate human resources. Universal precautions were not used well when sociocultural values overrode knowledge, with a lack of qualified personnel and resources and when people were reluctant to change their practice.

Midwives can take action to reduce the risk of occupational exposure. Strategies included identifying the problem and solutions, communicating with others including policy-makers and NGOs, ensuring continuous education occurs in the workplace, implementing clear policies, guidelines and protocols and setting up infection control committees to help monitor the problem and implement solutions. Participants felt that they could be role models for others, providing support to staff and education to clients. Midwives felt they could investigate the development of alternative methods of universal precautions when few resources are available and become involved in lobbying for additional resources.

Client-friendly services

Participants understood ‘client-friendly services’ to mean a service that observes the rights of the client in terms of confidentiality, privacy and choice. Client-friendly services were seen as those which employ health providers who have positive attitudes with effective interaction and communication skills and a nonjudgmental attitude. In these services a trusting relationship can develop between the health worker and the client. These services were also seen as role models with accessibility, flexibility and client involvement in goal setting and decision-making.

Participants felt that they would know that services were client-friendly when the clients were open and honest with their health providers, satisfied with the service, with no discrimination or stigmatization. People would feel free to attend and recommend it to others and it had a good public image in the community. Mutual goals would be met in such a service.

Services that were seen as not being client-friendly included non-integrated services that violated confidentiality, those that isolated HIV-positive people and those that had poor physical environments that did not value privacy. Services that were not client-friendly were seen as having staff who were judgmental, uncaring and unskilled with inadequate knowledge and poor communication skills.

Barriers towards providing client-friendly services included poor physical facilities with an unfriendly atmosphere and a lack of resources. Lack of privacy and confidentiality, low staff morale with poor pay, no appreciation or recognition and inadequate training. Lack of leadership and unsatisfactory management and lack of proper communication were also identified as barriers to providing client-friendly services.

Participants identified strategies to make their own services more client-friendly. These included developing more culturally sensitive policies and protocols, ensuring health workers are skilful with good interpersonal communication and counselling skills, planning continuing education and in-service programmes and restructuring or reorganizing

unfriendly physical environments. Recognising the work of the midwife, improving the morale of staff with feedback, involving the community in service development and implementation and ensuring confidentiality, respect and privacy for all clients were other strategies identified.

Methods were identified that could be used to recognize success in achieving client-friendly services. These included surveys to access client and health worker satisfaction with the service and the use of audit or statistical data collection to measure outcomes against set indicators, for example, numbers of attendees to the service, treatment compliance and prevalence of targeted health issues.

2.4 Objective 4

To identify strategies, policies and protocols to combat STI/HIV/AIDS at national and local level

Process

France Donnay (UNFPA) presented the plenary which was an example of a policy formulation process that was used to address women-friendly health services. This example served to demonstrate the steps in the process and the possible strategies and outcomes.

For the remainder of the session, participants were divided into self-identified groups, for example, educators, practitioners or administrators. The groups were asked to look at the 10 issues provided and choose one to address. Anne Thompson (WHO) displayed a model of the process they could use. This involved:

1. identifying the problem;

2. developing a consultation process with stakeholders;

3. developing the strategy with appropriate objectives and necessary adaptations;

4. developing the policy;

5. planning for implementation which involves training and monitoring;

Participants were asked to develop their own policy using this model and the suggested topics set out below.

Suggested topics:

> Detection and prevention of STIs; sexual health services for youth; voluntary counselling and testing in family planning and antenatal settings; labour ward policies to decrease HIV transmission; infant feeding; occupational infection prevention; improving supplies and equipment; improving maternal nutrition; increasing access to STI/HIV services; strategies for HIV transmission reduction in pregnancy and childbirth.

Content

A meeting on ‘Women-Friendly Health Services’ was held in Mexico in January 1999, with 100 participants from 25 countries, including policy-makers, programme managers and health care workers, and representatives from UNFPA, UNICEF, WHO, and the World Bank, as well as technical and advocacy NGOs. Together they reviewed the lessons learnt from country experiences in improving the quality of maternal care. The interventions required to improve the quality and friendliness of health services were organized in five categories : (1) increasing accessibility (2) improving providers' skills (3)compliance with technical standards (4) self-assessment and problem-solving (5) users' satisfaction and empowerment. The process included the following steps: (a) analysing the situation (b) building on successful strategies (c) learning from experiences and models in other countries and adapting them to local contexts (d) involving stakeholders at all stages of the process (e) changing focus over time on the basis of results, and (f) considering political opportunities.

A number of steps are necessary in formulating policy. In the process that was used to address women-friendly health services, firstly the collaborators were identified (e.g. UN agencies, NGOs, government offices, ICM, local projects) and information regarding what was already in place was identified. A background paper was written prior to the first meeting and an e-mail discussion ensued during which, the group defined what was meant by quality improvement.

The group then met to discuss the background document and formulate a plan. A number of issues were discussed including what kind of interventions might be useful. Working groups were developed and subjects for study were chosen including accessibility of health services, respect of technical standards, staff motivation and support, and empowered and satisfied users.

Technical standards were then addressed including: national policy, using a life-cycle approach to maternal care, adequate infrastructure, written protocols and the monitoring of performance.

Other strategies included involving all stakeholders, considering the political context, creating incentives for staff, learning from experiences and current models, adapting to local situations, and simultaneous implementation of multiple interventions.

2.5 Objective 6

To seek the means of educating women to protect themselves and their families

Process

This objective was addressed with a discussion with a panel of midwives with expertise in this area: Margaret Mwaipopo (Tanzania), Judith Chamisa (Zimbabwe), Shalla Ukende (Tanzania), Eva Tinkamanyire Ndahura (Uganda) and Christine Achurobwe (Uganda). This process and the sharing of experiences gave other participants a sense of what was possible, even in situations that are difficult. In addition, it enabled those, who are experts in this field, to share their experiences and skills.

Content

This group of midwives, with their diverse experiences and areas of expertise, demonstrated the importance and value of seizing opportunities and utilizing these in innovative and creative ways to achieve change. Education, using different opportunities and developing alternatives were important themes in this discussion.

Margaret Mwaipopo has developed a training manual for traditional birth attendants. The most important component of her initial contact with this group involved listening. She said: “Do not think you know better than them. Sit with them and ask them one by one what are their practices and what can they improve.” This participatory method, with less talk and more listening, was seen as being very useful.

Judith Chamisa was invited to participate in a discussion with the community to look at how children were brought up and how they were protected, particularly the girls, from violence. The discussion involved talking with the women about these issues and hearing their experiences. Women were encouraged to be vocal and fight against negative practices.

Shalla Ukende has worked with commercial sex workers or ‘bar girls’ to reduce the risk of STI/HIV infection in these women. The objective was to improve the well-being of the women through new skills. She found that when commercial sex workers were given alternative ways of generating income they could change their unsafe practices. This process was very effective as a teaching and learning experience.

Eva Tinkamanyire Ndahura has been involved in health talks in antenatal clinics to help mothers understand about pregnancy and labour and to help the transition to parenthood. These health talks include information about family planning and STIs.

Christine Achurobwe's experience is with women post-abortion. Her services use the opportunity of post-abortion care to talk to women about STIs. The service provides humanistic care, empathy and helps make the women feel that they are valued and important. Midwives often find this an important entry point for discussion and further counselling and education about STI/HIV prevention.

2.6 Objective 7

To formulate action plans which will:

- **Strengthen midwifery input into Safe Motherhood and STI/HIV/AIDS strategies for the management of infectious disease;**
- **Improve local practice with regard to infection prevention and management.**

Process

Each participant formulated an individual action plan to implement upon return to his or her own country. Plans varied according to professional background, situation and context, perceived priorities and personal background. The main theme in the action plans centres around the need for education, training and curricula development.

Content

The actions outlined in the action plans can be expressed in two main themes, that is education and practice development, and community participation.

Education and practice development

1. Share the knowledge and skills gained in the pre-Congress Workshop with colleagues and others including district health management team;

2. Observe practices in the clinical setting and gather data on the need for education and training;

3. Develop teaching modules and conduct training sessions/workshops to meet the needs of nurses, midwives and others;

4. Design appropriate curricula for midwifery students to address issues surrounding STI/HIV/AIDS;

5. Improve local practice with regards to infection control, management of disease and client friendly services and the formulation of accessible and appropriate policies;

6. Monitor and evaluate the counselling service both pre- and post-voluntary HIV-test;

7. Provide high quality care as appropriate (for example, providing antiretroviral therapy and alternative infant feeding methods in Thailand);

8. Establish an infection control policy committee;

Community participation

1. Hold regular meetings with various community groups to discuss STI/HIV/AIDS;

2. Formulate educational materials such as videos, posters, drama shows, role plays;

3. Develop awareness programmes for students, attendees of outpatient clinics, antenatal and well-baby clinics, and community groups;

4. Issue culturally relevant and acceptable messages on STIs and include local healers in programmes;

5. Develop links and collaborative arrangements with other sectors including local government units, Ministry of Health, universities, hospitals and donor agencies.

During the closing ceremony, each of the five workgroups presented "*Things that people will take from this workshop".* These mainly centred on the need for and value of ongoing education, the involvement and participation of the community, and midwives acting as change agents. Midwives need to become involved in policy development and in dispelling fears with knowledge.

3. CONCLUSION

This pre-Congress Workshop presented an opportunity for midwives from many parts of the world to come together and discuss the issue of STI/HIV/AIDS which has considerable significance for the health of society and in which midwives have an important role to play. STI/HIV/AIDS are epidemics with serious ramifications for the health of many nations. Midwives have the opportunity to make a substantial impact on these infections and their sequelae.

The workshop presented participants with knowledge and information, facilitated problem solving of their own particular scenarios, encouraged critical reflection on the practices and policies which impact on infection rates and transmission and provided opportunities to learn from one another. The overriding themes of the workshop were (1) the need for further and ongoing education, (2) the importance of listening and learning from others and (3) the need to lobby for adequate resources.

Making a difference to a worldwide problem such as STI/HIV/AIDS will only come about with the energy, enthusiasm, knowledge and commitment of individuals who join together to work towards a common goal. This workshop gave midwives information, strategies and encouragement that their work is vital to the improvement of health of women around the globe.

3.1 Evaluation

Participants, facilitators and speakers were asked to complete short, written evaluations (Appendix I). The comments received showed that the participants were of the view that the objectives were fully achieved, and that the process, though very demanding, had facilitated this learning experience.

NOTE: The following appendices contain the original text of the background document, leaflets and other documents used at the pre-Congress workshop. The views expressed in them do not necessarily represent current WHO recommendations.

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APPENDIX C: BACKGROUND DOCUMENT

INTERNATIONAL CONFEDERATION OF MIDWIVES
Pre-Congress Collaborative Workshop

Frontiers of Midwifery Care:
STDs/HIV/AIDS in Safe Motherhood

Collaborating Partners:
World Health Organization
United Nations Children=s Fund
United Nations Program in HIV/AIDS

AIMS:

To strengthen midwives= contribution to the care of women and babies through the prevention and treatment of STDs/HIV/AIDS.

OBJECTIVES:

Objective 1: To identify sexual health problems, particularly related to STDs/HIV/AIDS, which increase the risk of maternal and neonatal mortality and morbidity at global, national, community and individual level.

Objective 2: To explore the socio-cultural-economic realities which impact on the lives of women and their families, and midwives, with relation to STDs/HIV/AIDS.

Objective 3: To review the knowledge skills and attitudes required by midwives in practice:

- To discuss current basic areas of practice
- To examine the range of emergent responses to STDs/HIV/AIDS:

Objective 4: To identify strategies, policies and protocols to combat STDs/HIV/AIDS at national and local level.

Objective 5: To explore innovative approaches to care that midwives use to protect themselves from infection and to promote safe practices.

Objective 6: To seek the means of educating women to protect themselves and their families

Objective 7: To formulate action plans which will:

- Strengthen midwifery input into national Safe Motherhood and STDs/HIV/AIDS strategies for the management of infectious disease;
- Improve local practice with regard to infection prevention and management.

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STDs/HIV/AIDS in Safe Motherhood

PREFACE

In 1987 the Safe Motherhood Initiative was launched in Nairobi. Over 500,000 women were dying each year as a result of pregnancy and childbirth, and many more suffered serious and lasting damage to their health. As part of its response to this initiative, since 1987 the International Confederation of Midwives (ICM), in collaboration with the World Health Organization (WHO) and the United Nations Children=s Fund (UNICEF), has held Safe Motherhood workshops prior to each ICM International Triennial Congress. The workshops bring together midwives in clinical, education and other positions of leadership from developing countries where the numbers of maternal deaths are highest. Each workshop has explored the issues relating to Safe Motherhood, and has focused on the development of the skills of midwives to reduce the numbers of women who die or are damaged as a result of pregnancy and childbirth. At each workshop, the participants have prepared action plans geared to addressing the particular problems of their countries or communities.

The effect of escalating levels of sexually transmitted diseases (STDs), human immunodeficiency virus (HIV) and its resulting acquired immunodeficiency syndrome (AIDS), poses an enormous threat to safe motherhood across the world, but particularly in the developing countries where socio-economic and health problems are at their greatest. Midwives and those with midwifery skills have a unique opportunity to play a major role in caring for and supporting women who are living with the consequences of these diseases, and their families. They are also uniquely placed to provide the education, advice and encouragement which women and their families will need in the fight to combat and reduce the course of the diseases and their effects. The workshop on STDs, HIV and AIDS, to which you have been invited, is designed to give you knowledge and understanding of the issues, and to provide you with an opportunity to consider the contribution which you can make to your country or community in addressing the issues in a practical way, particularly in the interests of safe motherhood. WHO, UNICEF and UNAIDS are collaborating with ICM in running the workshop.

The Aims and Objectives of the workshop are set out on the first page of this background document. The program of the workshop will build on the information contained in this document and the leaflets which accompany it. Much of the basic information needed for achieving the Aims and Objectives are contained in the documents. In addition, information in this document and the specific leaflets on preparing case studies (Leaflet 6) and policies and protocols (Leaflet 5) are also designed to help you prepare yourself in advance for your contribution to the workshop and the discussion groups.

INTRODUCTION

Human immunodeficiency virus* (HIV)/acquired immunodeficiency syndrome (AIDS) is one of the most challenging and confronting issues facing midwives all over the world. No country is untouched by the epidemic which has many social, cultural and economic implications as well as posing an enormous threat to the health of families and whole communities. The HIV/AIDS epidemic has affected the lives of millions of people and their families globally and now threatens the social and economic development of many nations. HIV/AIDS predominately affects people in their most economically productive years. Their subsequent inability to work outside the home, to generate an income or to care for children, tend gardens or pursue an education has meant that many are facing enormous hardships and difficulties. No one can pretend that the HIV/AIDS epidemic is not a problem in her/his society.

There is no vaccine to protect people against HIV. Neither is there a cure. Prevention through education, awareness and behaviour change, is the only weapon against HIV infection. Preventing new infections in infants born to women living with HIV is a challenge for midwives and others who care for pregnant women anywhere in the world.

This background paper has been prepared for the ICM Pre-Congress Collaborative Workshop in Manila. The paper will initially review the global and regional epidemiology of HIV, the various modes of transmission and the risk factors associated with transmission. Mother-to-child transmission of HIV and the implications for midwives are outlined and a range of issues are addressed including voluntary counselling and testing for HIV, universal precautions and the dilemmas and difficulties associated with infant feeding. Finally, issues relating to other sexually transmitted diseases will be discussed.

□ ***The difference between HIV and AIDS***

Effects of infection with the HIV were first reported in the United States in 1981, with the AIDS being identified in 1982. The aetiological agent, HIV, was not identified until 1983 and officially named in 1986.

A person with HIV is someone who has been infected with the virus and has developed antibodies against it. This person is said to be HIV antibody positive. An infant born to a woman with HIV will carry maternal HIV antibodies for 15 to 18 months. After this the child who is truly non-infected will then lose her/his HIV antibodies. The child who is HIV positive will continue to test HIV antibody positive.

AIDS is the name of the condition which a person with HIV has when she/he contracts one or more of a constellation of illnesses. These illnesses occur when the immune system of the person with HIV starts to become suppressed as a result of damage caused by the virus. The constellation of illnesses includes infections such as *Pneumocystis carnii* pneumonia, toxoplasmosis, *mycobacterium avium* complex, herpes simplex and cryptosporidium, and malignancies such as cervical cancer and lymphoma. These illnesses are often known as opportunistic infections or malignancies. To say someone is infected with the >AIDS virus= is incorrect B the infection is HIV, and AIDS is the illness which a person with HIV develops.

*Throughout this document HIV refers to HIV-1, since cases of mother-to-child transmission of HIV-2 are rare.

GLOBAL EPIDEMIOLOGY[1]

Estimates by the Joint United Nations Programme in HIV/AIDS (UNAIDS) and the World Health Organization (WHO) indicate that by the beginning of 1998 over 30 million people were infected with HIV and that 11.7 million people around the world had already died as a result of HIV/AIDS. Nearly 16,000 new infections are believed to occur each day equating to 5.8 million new infections in 1997 alone of which nearly 600,000 were children infected mostly as a result of mother-to-child transmission[1].

While one in 100 adults in the sexually active age bracket (15-49) is living with HIV, only a tiny fraction are aware of their status. As people may live for some years without any symptoms of HIV infection, transmission can be unobserved for some time.

Although the progress of the epidemic has varied globally, few countries remain untouched by the epidemic. HIV infections are mostly concentrated in the developing countries which can ill afford to provide care and prevention measures. Almost 90% of people with HIV live in sub-Saharan Africa and in the developing countries of Asia.

As reported in the recent UNAIDS/WHO Global Report[1], infection rates are rising rapidly in much of Asia, Eastern Europe and southern Africa. In some countries in Latin America (e.g. Peru and Venezuela) the prevalence is rising rapidly while in others the rate is stable (e.g. Bolivia, Brazil and Ecuador). This fall in prevalence or stability is occurring in most industrialized countries and in Uganda and Thailand, where early intervention and active prevention programs were successfully implemented.

□ *Regional pictures of the epidemic[1]*

□□ *Africa:*

The most severe HIV epidemics in the world are found in the countries of sub-Saharan Africa. Women are more heavily affected there than in other regions as HIV has mostly spread between men and women rather than men to men or through injected drug use. Four out of five HIV-positive women in the world live in Africa and the region has an even higher proportion of children living with HIV. This high number of infected children is due to the high proportion of women with HIV, the larger number of children born to each woman and the almost exclusivity of breast feeding.

In general, West Africa has seen itσ rates of infection stabilize at much lower levels than East and southern Africa. However, in countries like Nigeria, with an estimated adult prevalence of 4.1%, there is no evidence that infection levels are stabilizing.

In the southern countries of the continent, the virus continues to spread rapidly. The prevalence among pregnant women in South Africa has risen to between 12 and 27% in some provinces. In Botswana, the proportion of adults living with HIV has doubled over the past five years, with 43% of pregnant women testing positive in the major urban centres. Zimbabwe has the highest estimated proportion of adults living with HIV infection in the world, with one in four adults thought to be infected. Median levels of infection among pregnant women of between 31 and 46% and up to 70% in one town near the South African border have been reported.

The first African country to respond actively to a massive national HIV/AIDS campaign was Uganda. The government engaged community, traditional and religious leaders in an active prevention program in the general community and in schools, which focused on delaying sexual relations and negotiating safe sex behaviour. Community groups were set up to counsel and educate people about HIV infection. This campaign seems to have been effective. At both rural and urban surveillance sites, infection rates are falling, in particular amongst young people, with delayed sexual initiation, more condom usage and fewer partners being reported than a decade

ago. In Tanzania, a similar prevention program has also resulted in prevalence rates falling among antenatal attendees.

□□ ***Asia****:*

Until the late 1980s, no country in Asia had experienced a major HIV epidemic. However, by 1992 a number were facing increasing levels of infection which were largely concentrated in groups such as injecting drug users and commercial sex workers whose behaviour was known to place them at risk.

While no countries have reached the levels seen in sub-Saharan Africa, the HIV epidemic is now well established with certain countries in South East Asia (Cambodia, Myanmar, Thailand and Viet Nam) being the most affected.

In China there are two main epidemics. One is amongst injecting drug users in the south-west region and the other, newer epidemic, is among heterosexuals, particularly in the prosperous eastern seaboard where the commercial sex industry is re-emerging.

In India, HIV infection rates are under 1% of the total adult population, which is low by the standards of many countries, but equates to large numbers of people. India, with an estimated 4 million people living with HIV, has been reported to be the country with the largest number of HIV infected people in the world. Testing of pregnant women in the town in the south of the country have reported rates of 4%, with prevalence rates among truck drivers in a similar region increasing from 1.5% in 1995 to 6.2% in 1996. In the north-east, rates among male drug injectors have been reported to be as high as 73% in some clinics.

In many other countries of the region there is limited information on HIV prevalence. However, a marker of high risk behaviour, that is, rate of STDs, remains high. For example, in Bangladesh, a survey of commercial sex workers found that 95% had contracted genital herpes from their clients and 60% had syphilis. While some countries in South East Asia seem to have low prevalence rates (e.g. Philippines, Indonesia, Laos, Sri Lanka), the reason is unclear. There is no assurance that these low rates will continue given the widespread occurrence of risk behaviours such as commercial sex work and injecting drug use.

Thailand has shown a fall in new infections, particularly in commercial sex workers and their clients. The decrease is the result of widespread prevention programs aimed at increased condom use among heterosexuals, discouraging men visiting commercial sex workers and offering women better educational and other prospects to reduce their need to enter the commercial sex industry. Despite these programs, other groups who have not received such a targeted campaign continue to exhibit >at risk= behaviours. For example, men who have sex with men in northern Thailand, have been reported to have low levels of HIV/AIDS awareness and infrequent condom use. HIV in injecting drug users seems reasonably stable at the high rate of 40%.

The situation in Cambodia is bleak, with 1 in 30 pregnant women, 1 in 16 soldiers and policemen and 50% of commercial sex workers testing HIV positive. Commercial sex is very common with three quarters of soldiers and policemen and one fifth of male students reporting in a recent survey that they had visited a commercial sex worker in the year.

In Myanmar, HIV is also rapidly spreading. Its prevalence in commercial sex workers rose from 4 to 20% from 1992 to 1996, and close to two thirds of injecting drug users and 2.2% of pregnant women in six urban areas are infected.

□□ ***Latin America and the Caribbean****:*

The pattern of HIV spread in Latin America seems fragmented but essentially similar to that seen in industrialized countries, that is, men who have unprotected sex with men and injecting drug users who share needles. Studies in Mexico suggest that up to 30% of men who have sex with men may be living with HIV infection. Between 3 and 11% of drug injectors in Mexico and close to half in Argentina and Brazil, are believed to be HIV infected. Rising rates in women show that heterosexual transmission is increasing. One quarter of the half a million adults living with HIV in Brazil are women and in the region as a whole, the proportion is around one fifth.

As contraceptive use is far higher in Latin America than in Africa or Asia and a smaller proportion of sexually active women will become pregnant, HIV rates in this group is likely to be less representative of the true seroprevalence of the population. However, UNAIDS/WHO believes that rates in pregnant women are among the best indicators of HIV infection in the population. In Honduras, HIV has been reported in 1% of antenatal women, and in 3% in Porto Alegre, Brazil. In 1993 in Haiti, 8% of antenatal women were HIV infected and the same prevalence was reported from the Dominican Republic in 1996.

□□ ***Eastern Europe****:*

Until the mid 1990s, most Eastern European countries seemed to be spared from the HIV epidemic with extremely low levels being reported through mass screening programs. However, in 1995 HIV prevalence in the former socialist economies of Eastern Europe and Central Asia increased considerably. Belarus, Moldova, Russia and the Ukraine have all registered huge increases in HIV infection rates. Most of the new infections in this region are in injecting drug users.

Ukraine is the worst affected country in the Eastern European region with 1,500 estimated infections in 1994 increasing to around 110,000 in 1998. A similar pattern is seen in the Russian Federation with newly diagnosed HIV infections increasing from only 158 in 1994 to 4,399 in 1997. However, this figure is an underestimate of the true picture of HIV in the Federation. It is estimated that there are around six people living with HIV for every person who has actually tested HIV-positive, which means that as many as 40,000 may be living with HIV.

While HIV seems to have been predominately in injecting drug users, the warning signs for a widespread sexually transmitted epidemic exists in many areas. There has been a dramatic increase in other STDs, especially syphilis in the Russian Federation, Belarus, Moldova and the Ukraine. From negligible annual rates of around 10 cases per 100,000 people in the late 1980, new syphilis infections have shot up to almost 150 per 100,000 in the Ukraine and more than 250 cases per 100,000 in the Russian Federation.

□□ ***Western Europe and North America****:*

In general, HIV infections seem to be dropping in Western Europe with new infections concentrated among drug injectors in the southern countries, particularly Greece and Portugal. Use of antiretroviral medications in pregnancy and the availability of safe alternatives to breast feeding have meant few children are contracting HIV through mother-to-child transmission. This picture of the epidemic is also seen in North America.

□□ ***North Africa and the Middle East*****:**

Less is known about HIV infection rates in North Africa and the Middle East than in other regions. Mass screening has been conducted in some countries, particularly those with large numbers of

immigrant workers, with no estimates at more than 1 adult per 100. Just over 200,000 people are estimated to be living with HIV in this region, under 1% of the world total.

HIV AND AIDS

□ ***Transmission of HIV***

□□ ***The known routes of HIV transmission include:***

- Sexual contact (heterosexual, bisexual or homosexual)
- Contaminated needles used for intravenous drug infection or for general purposes in areas where disposable needles or adequate sterilization equipment are scarce.
- Mother-to-child transmission
- Blood transfusions, blood products and organ/tissue transplants
- Injuries in healthcare settings, for example, people working with blood products, sustaining needle stick injuries.

□□ ***There is NO significant evidence to support claims that HIV may be transmitted by:***

- Insects, for example, mosquitoes which penetrate the skill and blood supply
- Saliva, for example, kissing, sharing food and eating or drinking utensils
- Sneezing or coughing
- Shared use of facilities, for example, toilets, swimming pools, towels
- Casual social contact, for example, shaking hands, hugging.

□□ ***Modes of transmission[2]:***

Heterosexual contact	70-80%
Homosexual/bisexual contact	5-10 %
Intravenous drug use	5-10 %
Mother-to-child transmission	5-10 %
Transfusions and transplants	3-5 %
Health care injuries	<0.0001 %

□□***Sexual transmission***

Sexual transmission accounts for the majority of cases of HIV transmission. The main factors that increase the risk of transmission include the presence of sexually transmitted diseases (STDs) and certain sexual practices and behaviours. Women are particularly susceptible to contracting HIV

infection, with the rate of transmission from male to female being two to three times higher than that from female to male[3].

□□□ *Risks associated with increased sexual transmission*

□□□□ *Sexually transmitted diseases:*

STDs are common in many developing countries. In 1995, WHO estimated that 333 million new cases of syphilis, gonorrhoea, chlamydial infection and trichomoniasis occurred[4].

The STD and HIV epidemics are interdependent. Similar behaviours, such as frequent unprotected sexual intercourse with different partners, place people at risk of both infections. In addition, the presence of a STD increases the risk of HIV transmission[5]. This link has been demonstrated in numerous studies conducted predominantly in developing countries. WHO estimated that syphilis increases the risk of HIV transmission by 3 to 9 times and gonorrhoea and chlamydia by 3 to 5 times[6].

□□□□ *Why do STDs increase the risk of HIV transmission?*

HIV levels have been detected more frequently in people with gonococcal urethritis than in non-infected or in treated patients[7]. HIV levels have been found to be increased in people with urethritis, especially when trichomoniasis or gonorrhoea were the causative agents. When men with theses conditions were treated with appropriate antibiotic therapy, the concentration of HIV fell to values similar to the non-infected[8]. Men with genital ulcers also have been found to have increased levels of HIV excretion[9].

Research in Kenya[10] and the Ivory Coast[11] found that HIV levels were significantly increased in cervicovaginal fluids of women with gonorrhoea, chlamydia, cervicovaginal ulcers or cervical mucopus. In the Ivory Coast research, detection of HIV in secretions reduced from 42% to 21% after successful STD treatment.

□□□ *Sexual practices:*

Unprotected sexual intercourse (vaginal and anal), numerous sexual partners, >casual> sexual encounters and failure to follow >safe sex= guidelines, all contribute to increasing the risk of sexual transmission of HIV. Oral sex of any form is not associated with a high risk of transmission, but it should, nonetheless, be regarded as a potential means of transmission[2].

While many women are monogamous, they are still put at risk of infection due to the sexual behaviour of their male partner. Socio-cultural practices and pressures often prevent women from taking the necessary precautions to prevent infection. For example, use of male condoms is low in many developing countries and society's pressure to reproduce makes practising safe sex difficult. Female barrier methods remain expensive and inaccessible to most women in developing countries and resistance to condom use in both men and women is common. In addition, traditional practices and customs such as "dry sex", vaginal douching with non-antiseptic compounds, female circumcision and "widow cleansing" may also contribute to the increased risk of infection. Gender inequities, poverty and poor educational and employment opportunities can also force women into the commercial sex industry to survive, thereby placing themselves at high risk of contracting HIV infection[12].

□□ *Parenteral transmission*

Parenteral transmission occurs through the use of infected blood for transfusions or exposure to infected blood through re-use of needles or syringes among intravenous drug users (IDU) or in health care facilities where sterilization of instruments is inadequate. Parenteral transmission also encompasses occupational exposure and patient to patient transmission.

□□□ *Blood transfusions*

Many, if not most, countries in the world, have national policies and guidelines for screening blood donors. However, these are not always implemented consistently in all regions, particularly at district level where the expense of testing equipment and the employment of skilled technicians constitute formidable obstacles.

Women and children in the developing world receive more transfusions than any other group, for malaria-induced anaemia, hookworm infestations and complications resulting from childbirth[13]. The risk of infection through this means is significant, especially in areas where seroprevalence is rising, more potential donors are seropositive and screening is inadequate.

□□□ *Intravenous drug use*

In many countries, drug injecting accounts for more HIV infections than sex. For example, three quarters of cases recorded in Malaysia, Viet Nam, south-west China, north-west India and Myanmar are among IDUs. In Western Europe, accounting for infections passed on to sexual partners and infants of drug users, IDU is responsible for 44% of AIDS cases and in the Southern cone of Latin America it accounts for nearly one third[1].

HIV has grown more rapidly in drug injecting populations than in any other community because many of those involved share injecting equipment. For example, in Bangkok, HIV prevalence in IDUs rose from 2% to 40% in two years, and in the Ukrainian city of Mykolayev the estimated rate rose from 2% to 57% in only one year. Sharing needles is a highly efficient way of transmitting HIV so the speed of infection is directly linked to the injecting practices of any given community.

□□□ *HIV transmission in health care settings*

HIV can be transmitted in the health care setting from patient to patient, from patient to health care worker or, more rarely, from health care worker to patient. In each of these forms of transmission the risk depends on the prevalence of HIV infection in the particular community, the frequency of exposure to contaminated medical instruments and the infectivity and concentration of the virus. Since it is not practical nor desirable to identify everyone who is infected with HIV, the strategy for preventing transmission in the health care setting is to view everyone as having the potential to be infected, that is, utilize universal infection control principles. The only reason to focus on identifying infected persons is to be able to provide counselling, support, treatment and care[14].

□□□□ *Transmission of HIV to health care workers*

Health care workers are potentially at risk of acquiring blood-borne infections following occupational exposure to blood and body fluids. Occupational exposure is usually defined as:

- percutaneous: a skin penetration caused by a sharp object; or
- non-percutaneous: mucous membrane or conjunctival contact with blood, and non-intact skin contact with blood or body fluids.

Other body fluids can transmit HIV in the health care setting (including vaginal secretions, wound secretions, amniotic fluids, semen). However, **blood** is the single most important route of potential transmission. A number of body fluids have **not** been associated with transmission of HIV unless visible blood is present. These include faeces, urine, saliva, vomitus and tears. However, as these represent a potential source for other nosocomial and community-acquired infections, nurses and midwives must exercise caution in handling them[14].

HIV transmission following percutaneous exposure with the blood or body fluids of an HIV infected person has been estimated to be between 0.1 and 0.4%[15,16]. The risk of transmission, however, is different as it depends on the nature and severity of the injury, the disease status of the source patient, the volume of infected blood, the type of exposure (sharp injuries have the greatest risk of transmission) and the type of instrument eliciting the injury. Hollow bore needles may be more likely to result in transmission as compared to solid needles because they transmit a greater amount of blood. The wearing of gloves during potential exposure procedures protects the wearer, as the volume of blood transmitted is reduced by at least 50% when the needle passes through a glove[17].

The risk of transmission after non-percutaneous exposure is estimated to be 0.9%. This uncommon event would seem to be influenced by the quantity of blood, the extent of the contamination and the presence of lesions, for example, paronychia, dermatitis, lacerations or chapped skin[16].

□□□□ *Transmission of HIV to patients*

Patients are at risk of becoming infected with HIV as a result of their treatment through the health care system[14]. The sources of these risks include:

- Contaminated instruments (for example, needles, syringes, scalpels) that are reused without adequate disinfection or sterilization;
- Transfusion with infected blood;
- Skin graft, organ transplant or donated semen from a person with HIV infection;
- Contact with blood or other body fluids from a health care worker with HIV infection.

□□ *Mother-to-child transmission*

Since the beginning of the epidemic, 2.7 million children have died as a result of AIDS and another million children were estimated to be living with HIV at the end of 1997. The great majority of these children live in developing countries. The overwhelming majority of children acquired HIV from their mothers before or around the time of birth or through breast milk.

□□□ *Mother-to-child transmission rates*

Mother-to-child transmission rates vary greatly across the globe. In industrialized countries like France and the USA, fewer than 5% of children born to mothers with HIV acquire the infection, whereas in many developing countries the average transmission rate is 25 to 35%. There are two main reasons for this difference - breast feeding, and access to antiretroviral drugs[1]. Other reasons also have been suggested including vitamin deficiency, malnutrition and STDs.

□□□ *Timing of mother-to-child transmission*

HIV can be transmitted from the mother to the child in-utero, around the time of labour and delivery or through breast feeding. It appears that in-utero transmission is less frequent and that a substantial proportion of infection occurs late in pregnancy or at the time of delivery[18]. A number of studies have attempted to proportion the timing of transmission and suggest in-utero transmission accounts for between 23-35%, intrapartum for 65% and postpartum for 12% of overall[19,20,21].

□□□ *Factors associated with mother-to-child transmission*

A number of factors have been associated with an increased risk of mother-to-child transmission. These can be separated into five categories: viral, maternal, intrapartum, fetal and infant. The information is this section is taken from the WHO Review of HIV and Pregnancy[12].

VIRAL FACTORS	Viral resistance Viral load
MATERNAL FACTORS	Immunological status Nutritional status Behavioural factors
INTRAPARTUM FACTORS	Prolonged ruptured membranes (< 4 hours) Mode of delivery Intrapartum haemorrhage Obstetrical procedures Invasive fetal monitoring
FETAL FACTORS	Prematurity Multiple pregnancy
INFANT FACTORS	Breast feeding

□□□□ *Viral factors*

Transmission from mother-to-child is increased when there are high levels of maternal circulating HIV. An association between levels of maternal viral load and the risk of transmission has been demonstrated in a number of studies as cited in the recent WHO Review of Pregnancy[12]. More than half of women with circulating viral loads of >50,000 RNA copies per ml at the time of delivery were shown to transmit the virus to their infants. Despite this association, there does not appear to be a viral load threshold where transmission does not occur, showing that there are probably multiple influences on mother-to-child transmission.

□□□□ *Maternal factors*

Transmission from mother to child is more likely in mothers with decreased immune function. Vitamin A deficiency has also been associated with an increased risk of transmission. The reason for this is unclear but it is suggested that vitamin A is responsible for maintenance of the integrity of vaginal mucosa or placenta, and immune stimulation. However, vitamin A deficiency may be a sign of other deficiencies (for example zinc) which could influence transmission.

Behavioural factors have also been linked with increased risks of transmission. For example, maternal >hard= drug use, cigarette smoking and unprotected sexual intercourse during pregnancy.

□□□□ *Intrapartum factors*

As the majority of mother-to-child transmission occurs during the time of labour and delivery, midwifery and obstetric factors are important to consider. Intrapartum transmission of HIV probably occurs through either direct skin and mucus membrane contact between the infant and maternal cervicovaginal secretions during labour, ingestion of virus from these secretions, or ascending infection with ruptured membranes.

A number of intrapartum factors have been reported to increase the risk of transmission including preterm delivery, intrapartum haemorrhage, use of fetal scalp electrodes, episiotomy and operative delivery.

The duration of ruptured membranes has been associated with an increased risk of transmission and is considered an important risk factor. Having ruptured membranes for more than four hours has been shown to nearly double the risk of infection, regardless of the eventual mode of delivery.

Delivery by caesarean section has been shown to reduce the transmission rate in some prospective studies and in a recent meta-analysis.

□□□□ *Fetal factors*

Preterm infants have a higher reported HIV transmission rate. Women with reduced immune function are more likely to have preterm infants which might help explain this finding. Higher rates of infection have also been seen in first born twins. This difference is more pronounced in vaginal births, but is also seen in twins born by caesarean section.

□□□□ *Infant factors*

Breast feeding is now known to be a source of HIV infection and believed to contribute to between one third and a half of all infections in infants in developing countries. Transmission via this route is less common in industrialized countries where HIV positive mothers have access to a safe infant feeding alternative.

The additional risk through breast feeding has been shown to be between 7 and 22%. A study in South Africa reported transmission rates of 18% in formula fed babies and 42% in those who were breast fed. Rates are reported to be higher if the mother seroconverts (that is, becomes HIV positive) during breast feeding, where the estimated risk is about 30%. The risk of breast milk transmission may also depend on other factors including breast abscesses, mastitis, nipple cracks and oral thrush in the child.

□ *Effect of pregnancy on HIV infection*

A number of studies reviewed in a recent WHO report suggests that pregnancy does not have an effect on the progression of HIV disease. In some countries in central Africa, AIDS has become a common cause of maternal mortality. However, this does not seem to be due to acceleration of HIV disease but rather because women with more advanced disease are becoming pregnant and dying as a result of HIV/AIDS complications[12].

□ *Effect of HIV infection on pregnancy*

Adverse pregnancy outcomes have been reported in a number of studies of women living with HIV in African countries. HIV infection has been linked to higher rates of spontaneous abortion and higher rates of ectopic pregnancy. The ectopic pregnancy rates might also be related to the high rates of concurrent sexually transmitted diseases, including gonorrhoea and chlamydia. Syphillis is more common in women with HIV with concurrent infection detected in 33% of HIV seropositive women in South Africa; three times the rate in HIV seronegative women.

Bacterial pneumonia, urinary tract and other infections are more common in pregnant women with HIV infection. Tuberculosis is the most common opportunistic infection associated with HIV infection. Pregnancy may be the time when women have involvement with health services and so an opportunity exists for diagnosis and treatment of this. *Herpes zoster* is also common in HIV seropositive women.

Specific pregnancy related complications have been reported in women living with HIV. Increased rates of preterm labour, preterm rupture of membranes, placental abruption and stillbirth are all reported in these women, especially in those from developing countries. Postpartum infections are more common in women with HIV and increased mortality related to caesarean section has been reported in one study[12].

□ *General strategies to prevent or reduce transmission of HIV and other blood-borne infections*

□□ *Occupational health: use of infection control principles*

Universal infection control principles can help to reduce the risk of transmission through occupational transmission such as from patient to health care worker, or from health care worker to patient. WHO recommends specific infection control precautions[14]. The details of the precautions are contained in Leaflet 1 "Universal Precautions" prepared for this workshop. The principles include:

- Preventing injuries from needles and other sharp objects
- Preventing exposure of open wounds and mucous membranes
- Preventing transmission via contaminated instruments
- Avoiding spills of blood or other body fluids onto surfaces
- Disposing of waste appropriately.

□□ *Reducing sexually transmitted diseases*

Successful treatment of STDs can result in reduced incidence of HIV infection. Prevention of HIV infection depends on promotion of safer sexual behaviour (e.g. fewer partners), use of condoms and the early and effective treatment of STDs. In fact, STD control has the potential to contribute substantially to HIV prevention. A trial conducted in villages in Tanzania demonstrated that improved STD treatment services led to a 42% reduction in cases of HIV infection[22].

STD control by itself will reduce illness in the population. STDs are responsible for a considerable burden of acute illness and a substantial proportion of STDs become chronic and complicated, causing chronic pelvic pain, ectopic pregnancy, infertility and death[23].

□□□ *Population-based interventions*

To have maximum effect, STD interventions must be applied to whole populations early in the course of the epidemic[24]. This includes campaigns aimed at promoting safer sexual behaviour (education, information, condom provision and use) and better STD treatment-seeking behaviour. It also includes improved STD services (including improved attitudes of care providers, improved case management and contact treatment), integration of STD treatment into family planning, antenatal care and other health services, and mass treatment of whole communities[5].

The effective STD treatment strategy that was instituted in rural Tanzania incorporated education, surveillance and treatment of STDs[22]. The strategy consisted of the following five components:

1 establishment of an STD reference clinic and laboratory in the nearest medium sized town to monitor the aetiology of STDs and the effectiveness of the treatments;

2 education and training of health care staff from the local health centres and dispensaries. The health care workers were given one week classroom training followed by two weeks practical training at the STD reference clinic;

3 regular supply of drugs to treat STDs was ensured, as was the supply of condoms for use during STD episodes;

4 regular supervisory visits from a program officer from the nearest major health facility to check drug supply and to provide in-service training;

5 periodic visits by a team of health care educators to each village to provide information on effective treatments and encourage prompt attendance for treatment of symptomatic STDs.

□□ *Making injecting drug use safer*

The risks associated with drug injecting need to be addressed through a comprehensive program based on the principle of "harm reduction". The wider impact of IDU on HIV transmission means that midwives need to be aware of this problem and be prepared to address injecting drug issues in their practice.

The following components need to be part of any comprehensive program[1]:

- Education for IDUs (and their sexual partners) on HIV and other diseases that are spread through blood;
- Training in skills, for example, decision-making on drug use, negotiation of safer drug use;
- Access to safer equipment, or access to cleaning solutions like bleach;

- Access to condoms;
- Treatment programs to help users cut down or stop injecting;
- Information and education to reduce the demand for injecting drugs.

□□ *Blood transfusion services*

Women and children in the developing world receive more transfusions than any other group for malaria-induced anaemia, hookworm infestations and complications resulting from childbirth[13]. It is better to prevent the causes of anaemia than to give transfusions.

When blood transfusions are necessary, all blood for transfusion should be tested for HIV antibodies. In areas where testing is not feasible, blood transfusions should only be given when absolutely necessary, that is, to treat a life threatening condition. Where possible, blood transfusions should be replaced with other suitable intravenous solutions e.g., dextrose and/or dextran 70 or Ringer's solution[14].

□ *Specific strategies to prevent or reduce mother-to-child transmission of HIV*

□□ *Creating an optimal setting for maternity service delivery*

In countries with well functioning health systems, the additional costs of interventions to prevent mother-to-child transmission may already be affordable. Other countries will require more substantial investments to strengthen their health infrastructure to permit the incorporation of large-scale interventions. Where applicable, traditional health and community support systems should be fully utilized. Such investments will also have a broad beneficial effect on the health sector more generally, and should be encouraged.

The following characterize the optimum settings in which to implement interventions for preventing mother-to-child transmission[25]:

- All women should have knowledge about HIV and access to the information necessary to make appropriate choices about HIV prevention, sexual and reproductive health and infant feeding in the context of HIV.
- Voluntary HIV counselling and testing should be available for pregnant women, those contemplating pregnancy and their partners.
- All pregnant women should have access to antenatal, delivery and postpartum care, and to a skilled attendant at birth. For the ZDV short course regimen (explained in more depth in the next section) to be effective, at least one antenatal visit with follow-up is needed before 36 weeks (preferably before 34 weeks). In order to benefit from this intervention, women who receive antenatal services before 36 weeks should have access to voluntary counselling and testing.
- There should be follow-up of children at least until 18 months, especially regarding nutrition and childhood illnesses.
- Medical and other support services should be accessible to mothers living with HIV and to their families.

- Human rights, including reproductive rights and the rights to informed choices and confidentiality, should be respected. This means that the social environment must enable women to make informed choices and to cope with the choices they make.

□□ *Midwifery and obstetric practices*

□□□ *Vitamin A supplementation*

Deficiency of vitamin A has been associated with a higher risk of mother-to-child transmission. Trials in Malawi, South Africa, Tanzania and Zimbabwe are currently studying whether adding vitamin supplements to the diet of pregnant women can reduce the risk of transmission to the infant[25]. In Tanzania, a trial has shown that women who received multivitamin supplementation had less stillbirths, low birth weight or preterm babies and higher CD4 cell counts than those who received vitamin A alone or no supplementation. The impact of these findings on mother-to-child transmission is yet to be established[26].

□□□ *Birth canal cleansing during labour and delivery*

Various methods of vaginal washing or lavage during labour and delivery using chlorhexidine or other solutions are currently being investigated in several countries. A study in Malawi showed that vaginal lavage performed during labour, using chlorhexidine, was effective in reducing the mother-to-child transmission rate **only when** the membranes had been ruptured for more than four hours[27].

□□□ *Other specific interventions during labour and delivery*

Practices that reduce contact between the infant and the mother's body fluids may assist in the reduction of transmission. This includes avoiding unnecessary artificial rupture of membranes, use of fetal scalp electrodes, fetal blood sampling, episiotomies and other invasive procedures.

□□□ *Caesarean section*

In a manner similar to vaginal lavage, delivery by elective caesarean section reduces the infant's contact with the mother's body fluids and has been shown to lower the risk of transmission. However, in many regions of the world this is not a wide-scale solution because of the lack of qualified health workers, the costs involved, logistical difficulties and risk of complications[25].

□□□ *Antiretroviral drugs (ARV) during pregnancy[28]*

In 1994, a study conducted in the US and France (ACTG 076 study) reported a significant breakthrough in the prevention of mother-to-child transmission of HIV infection. Treatment of the mother during pregnancy and labour and the infant during the neonatal period with one antiretroviral drug, zidovudine (ZDV), was shown to reduce the HIV transmission rate from 25% to 8%. In 1998, results from a shorter course regimen of ZDV showed that a lesser but still significant reduction could be obtained with a simpler and less expensive course of therapy.

□□□□ ***Long course therapy ACTG 076***

The ACTG 076 regimen has become the accepted standard of care in industrialized countries. This regimen is known as the >long course= and means treatment with oral ZDV during pregnancy (commencing usually in the second trimester at 500mg per day) and intravenous ZDV during labour and delivery, with infants receiving oral ZDV for six weeks. The women are encouraged not to breast feed. The results from the original study show no evidence of teratogenicity or short term adverse effects in the fetus or neonates. On the basis on the ACTG 076 study and the availability of newer antiretroviral drugs, further reductions in mother-to-child transmission rates may be possible with combinations of ARVs.

Unfortunately, the results of this regimen are not applicable to most women in developing countries where the need is greatest. This is because of the high cost of the intervention, the logistical difficulties in providing intravenous therapy during labour and the need for women to book early and commence ZDV during the second trimester. In addition, many women in developing countries are unaware of their HIV status and breast feeding is the only safe method of infant feeding.

□□□□ ***Short course (CDC Thailand Study)***

In this study of a simpler and shorter regimen, women were given 300mg oral ZDV twice daily starting at 36 weeks gestation and 300mg every three hours from the onset of labour until delivery. All women were instructed NOT to breast feed and were provided with infant formula. This short course regimen resulted in a 50% reduction in the mother-to-child transmission rate from 18% to 9%.

The cost per mother-child pair treated was estimated to be US$50. However, even this relatively low cost would be a major financial challenge for many health systems and additional outlays are also necessary, including testing and counselling facilities, support for breast milk substitute feeding, and more intensive service delivery.

It must be noted that in the studies of the long and short courses of ZDV, the majority of women were not severely immunosuppressed, adherence to antiretroviral treatment and clinic attendance was high and women did not breast feed.

□□□□ ***UNAIDS Petra Study***

The PETRA Study, which is being conducted in Tanzania, Uganda and South Africa, is evaluating the efficacy and tolerance of three regimes using ZDV in combination with another ARV, lamivudine (3TC) in a population where breast feeding is the norm. The three regimes have been specifically designed to identify the shortest, effective and most applicable regime for use in developing countries. The combination of ZDV and 3TC is being used as recent data suggests this combination induces a more rapid (within three to four weeks as compared to six weeks with ZDV alone) and greater reduction in viral load. The results of this study should be available in 1999.

□□□□ ***Minimum requirements for ARV in pregnancy***

- Access to and utilization of appropriate antenatal, intrapartum and postpartum care with adequately trained health workers;
- Adequate, affordable and reliable voluntary pre and post-test HIV counselling and testing;
- Acceptance and uptake of voluntary counselling and testing by HIV infected women;
- Providing an enabling environment; preventing discrimination and abuse of women who test positive;

- Continuing medical and social support for HIV infected women;
- Laboratory services to monitor blood parameters (for short course regimens haemoglobinestimations at enrolment is sufficient);
- Delivery units with access to safe standard precautions: disinfection, gloves, needles;
- Affordable ARV drugs;
- A sustainable pharmaceutical distribution and storage system for ARV drugs to ensure quality control;
- For the maximum benefit of ARV interventions: the availability of affordable breast milk substitutes, counselling about infant feeding options, access to safe water, and fuel for those who choose not to breast feed their infants.

□□□□ *Setting up ARV services in maternal health services*

- Interventions to reduce mother-to-child transmission of HIV must be part of a comprehensive approach to HIV prevention and care and antenatal care. A number of guiding principles should underline these interventions:
- Primary prevention of HIV infection in women;
- Non-stigmatization of women;
- Support services for HIV positive women and children and their families;
- The overall health and well being of mothers and other children should not be altered by interventions to reduce mother-to-child transmission of HIV;
- Resources should not be diverted from normal antenatal care and other related programs.

□□ *Infant feeding*

Breast feeding is clearly advantageous for children and mothers. Breast milk is free, convenient and nutritious and protects infants from a range of other infections. Breast feeding assists with physiological child spacing and has emotional benefits for both mother and baby.

In developing countries most women (90%) with HIV are not aware that they have it, and so are unable to make an informed decision about breast feeding. Even women who know that they have HIV may choose to breast feed as they do not have access to an alternative. Water supply in many countries is unsafe and artificial milk is expensive. By artificially feeding, women lose the natural contraceptive effect of breast feeding. In addition, in many communities, not to breast feed could be a sign that the woman has HIV, with all the cultural, social and other implications which that might bring for her.

□□□ *Balancing the benefits and the risks of infant feeding*

The balance between the benefits of breast feeding and the risk of HIV transmission must be carefully considered. Research has identified a number of major areas of concern when addressing this balance[29]. These include:

- The occurrence of breast milk transmission of HIV is now well documented. Transmission can take place at any point during lactation. However, research suggests most transmission occurs intrapartum and in the early postnatal period;

- Commercially prepared breast milk substitutes are expensive and may not always be readily available within the countries that are most affected by the HIV epidemic. The cost of using breast milk substitutes has been estimated at US$800 per child for the first year of life;

- Successful implementation of intervention programs, such as the use of breast milk substitutes for women living with HIV/AIDS, will require mothers to be aware of their HIV status through voluntary testing and counselling. This would increase the cost of the intervention program;

- Promotion of breast milk substitutes for infants of mothers with HIV may erode the giant steps made in promoting breast feeding as a strategy for child survival;

- Lack of breast feeding may translate to maternal health costs, including lack of lactational amenorrhoea as a means of avoiding subsequent pregnancies, which may translate into short birth intervals and compromized maternal health;

- Promotion of breast milk substitutes among women with HIV in communities that primarily breast feed could violate confidentially and make these women more vulnerable to discrimination because of the social stigma attached to HIV;

- Implementation of programs addressing breast milk substitutes would divert resources from other important public health programs.

□□□ *Preventing breast milk transmission of HIV*

The most absolute way to prevent breast milk transmission is to prevent maternal infection. Strategies to address social, cultural, economic and educational factors that reduce the vulnerability of women and girls to HIV infection need to be at the forefront of HIV prevention campaigns. Access to confidential counselling and testing will ensure people are fully aware of their HIV status enabling them to make informed decisions about their lifestyle and behaviours.

Breast feeding avoidance is clearly the only way to effectively prevent breast milk transmission of HIV. This simplistic strategy is clearly impossible to implement in some parts of the world especially in those where HIV is most prevalent. Other strategies need to be examined and researched. These might include[29]:

- Treating breast milk with heat to destroy HIV. Laboratory research has demonstrated that heat treatment can considerably reduce the infectious nature of breast milk. This strategy would require women to have access to facilities to express and heat breast milk adequately and safely.

- Surrogate breast feeding, although this also carries a risk to both infant and wet-nurse. This strategy would require knowledge of the HIV status of the wet-nurse through regular testing. The wet nurse potentially is at risk of becoming infected by an HIV infected infant.

- Modification of animal or soy milks which may be cheaper and more readily accessible than commercially prepared breast milk substitutes. Use of feeding cups instead of bottles, ensuring a clean water supply, accurately diluting preparations and developing a safe method of handling and preparing substitutes are all approaches which need to be addressed and researched if this is to be a viable reality.

- Shortened breast feeding duration to reduce the cumulative exposure. However, as research suggests, 70% of postnatal transmission occurs within the first 4-6 months of life, this strategy would have limited utility in transmission prevention.

□□□ *Problems associated with breast milk substitutes*[28]

- Cost, supply, distribution and control
- Risk of morbidity and mortality due to lack of clean water, fuel, time, bottles, feeding cups, lack of immunological benefits of breast feeding.
- Cultural acceptability, stigmatization.
- Common knowledge of mother's HIV status
- Undermining of breast feeding in HIV infected (or untested) population.

The risk of infant feeding with alternatives to breast milk should be less than the potential risk of HIV transmission.

□ *Care of pregnant women living with HIV*

□□ *Voluntary counselling and testing*[12]

Wherever possible, voluntary counselling and testing (VCT) should be available to all pregnant women who request it, and offered to all in areas of moderate or high HIV prevalence. Routine testing of pregnant women without consent or without access to counselling is an unacceptable practice and the disadvantages negate any benefit obtained from knowing the HIV status of the woman. The disadvantages include a reluctance to utilize maternity services through fear of discrimination, denial of a positive diagnosis and stigmatization.

Acceptability of counselling and testing is highly variable. For example, only one third of women at a health centre in Harare, Zimbabwe accepted VCT, compared with 90% at a clinic in Soweto, South Africa[25].

□□□ *Possible advantages of VCT*

There are potential benefits to women of VCT prior to or during pregnancy. This is the case even in the absence of expensive interventions such as ARV. The benefits include:

- When a woman is found to be HIV infected, this knowledge can facilitate early counselling and treatment;
- A diagnosis in the mother allows appropriate treatment and follow-up of the child;
- Knowledge of her HIV status enables the woman to make decisions on continuation of the pregnancy and on future fertility;
- Testing allows an opportunity to implement strategies to attempt to prevent transmission to the child;

- Knowledge of HIV status enables the woman to take precautions to help prevent transmission to sexual partners;
- Women diagnosed as living with HIV can tell their sexual partners and enable them to be counselled and tested;
- If the test is negative, women can be guided in appropriate HIV prevention measures and risk reduction behaviours.

□□□ *Possible disadvantages of VCT*

The disadvantages will vary from community to community but a number have been reported. These include an increased risk of violence against women, stigmatization within her community and by health workers, higher levels of anxiety and psychological distress and, in some cases, abandonment.

Several studies have also reported the reluctance of some women to return for their test results out of fear of reprisals. In Nairobi, where results are only given out on request, only 35% of women who agreed to be tested, returned to ask for results. In Kigali, 64% of positive women and 71% of HIV negative women returned for test results.

□□□□ *Pre-test counselling*

Pre-test counselling enables men and women to make informed decisions about an HIV test. Together with post-test counselling it is an essential element in the management of HIV in pregnancy. Women should be encouraged to bring their sexual partner(s) for counselling and testing wherever possible.

Pre-test counselling implies explanation of both the test and the infection in a non-directive manner, answering any questions, and allowing the woman time to decide on the test process that best meets her needs. Various models of providing pre-test counselling have been developed including group counselling, video education, HIV information at the first visit with midwives, and the use of lay counsellors.

- Guidelines developed from the Johannesburg Community AIDS Centre suggest:
- Take the client to a private setting for counselling;
- Assure the client about confidentiality;
- Explain or determine the reasons for HIV testing;
- Provide information about HIV/AIDS;
- Provide information about the HIV antibody test, including the >window period= before antibodies are detectable;
- Review the implications of a positive test for the client;
- Discuss the person's possible responses to a positive test result;
- Discuss the person's possible responses to a negative test result;
- Provide information about test procedures and obtaining results;
- Obtain informed consent.

□□□□ *Post-test counselling*

Post-test counselling is an integral part of the management of HIV and provides an important opportunity for risk reduction messages for those who are found to be HIV negative. Counselling involves more that giving a result. Continued care and advice are necessary as part of the overall package. Post-test counselling should also provide for women who test HIV negative with a focus on providing information to enable them to avoid infection.

- Guidelines developed from the Johannesburg Community AIDS Centre suggest:
- See the client personally to give the result. No results should be given by telephone, and preferably not just before a weekend;
- Give the result as soon as possible after the test is done;
- Inform the client of the test result;
- Deal with feelings from a negative result and explore prevention of infection and the window period;
- Deal with feelings arising from a positive result;
- Identify the person's immediate concerns;
- Discuss how the client plans to spend the next few hours and days;
- Identify what support the client has;
- Discuss who the client may want to tell about the result and risks to sexual partners;
- Identify what difficulties or problems the client foresees and how to deal with them;
- Encourage the client to ask questions;
- Provide information on a healthy lifestyle, medical follow-up local support systems;
- Refer the client for follow-up and counselling.

□□□□ *Testing*

A qualified person should take the blood specimen for the test using universal precautions, including the safe disposal of needles and syringes. The type of tests will depend on the local seroprevalence, policy and available facilities. In most cases blood specimens will be sent to the appropriate laboratory, but in some areas, dry spot testing may be an acceptable alternative. The first line test for HIV antibodies is an enzyme-linked immuno-absorbent assay (ELISA) test. Depending on local conditions, a confirmatory test with a second ELISA kit or a Western Blot should be used. Any testing strategy must be undertaken with appropriate laboratory quality assessment.

Increasingly sensitive and specific "rapid" tests are becoming available, potentially making on-site testing possible in the future.

References

1. UNAIDS & WHO. *Report of the global HIV/AIDS epidemic*. Geneva: UNAIDS/WHO, 1998.
2. Bryson, Y. Modes of transmission of HIV. 1994. Glasgow, Scotland. Second International Congress on Drug Therapy in HIV Infection.
3. Royce RA, Sena A, Cates W, Cohen MS. Sexual transmission of HIV. *New England Journal of Medicine* 1997;**15**:1072-1078.
4. World Health Organization. *An overview of selected curable sexually transmitted diseases*. Geneva: WHO, Report No: WHO/GPA/STD 95.1, 1995.
5. Wilkinson, D. and Rutherford, G. HIV prevention: population-based STD interventions (Cochrane Review). The Cochrane Library 3. 1998. Oxford: Update Software.
6. World Health Organization. *The Transmission and Control of STD/HIV. Programme Introduction and Workbook 1*. Geneva: World Health Organization, 1995;
7. Moss GB, Overbaugh J, Welch M. Human immunodeficiency virus DNA in urethral secretions in men: association with gonococcal urethritis and CD4 cell depletion. *Journal of Infectious Diseases* 1995;**172**:1669-1474.
8. Cohen MS, Hoffman IF, Welch M, et al. Reduction of concentration of HIV-1 in semen after treatment of urethritis: implications for prevention of sexual transmission of HIV-1. *Lancet* 1997;**349**:1868-1873.
9. Dyer JR, Eron JJ, Hoffman IF, et al. Association of CD4 cell depletion and elevated blood and seminal plasma HIV-1 RNA concentrations with genital ulcer disease in HIV-1 infected man in Malawi. *Journal of Infectious Diseases* 1998;**175**:224-227.
10. John GC, Nduati RW, Mbori-Ngacha D, et al. Genital shedding of HIV-1 during pregnancy: association with immunosuppression, abnormal cervical or vaginal discharge and severe Vitamin A deficiency. *Journal of Infectious Diseases* 1997;**175**:57-62.
11. Ghys PD, Fransen K, Diallo MO, et al. The associations between cervicovaginal HIV shedding, sexually transmitted diseases and immunosuppression in female sex workers in Abidjan, Cote d=Ivoire. *AIDS* 1997;**11**:F85-F93.
12. World Health Organization. *HIV in Pregnancy: A Review*. Geneva: Division of Reproductive Health (Technical Support), World Health Organization, 1998.
13. World Bank. *Investing in health: World Development Indicators.* New York: Oxford University Press, 1993.
14. World Health Organization. *HIV Prevention and Care: Teaching Modules for Nurses and Midwives*. Geneva: Global Programme on AIDS, WHO, 1993.
15. Bell DM. Human immunodeficiency virus transmission in health care settings: Risk and risk reduction. *American Journal of Medicine* 1998;**91**:294s.
16. Ippolita G, Puro V, de Carli G, et al. The risk of occupational human immunodeficiency virus infection in health care workers. *Archives of Internal Medicine* 1993;**153**:1451-1458.
17. Gerbeding JL. Current epidemiological advice and case reports of occupationally acquired HIV and other blood-borne diseases. *Infection Control and Hospital Epidemiology* 1990;**11**:S558-S591.
18. Fowler MG. Update: transmission of HIV-1 from mother to child. *Current Opinion In Obstetrics and Gynaecology* 1997;**9** :343-348.
19. Rouzioux C, Costagliola D, Burgard A, et al. Estimated timing of mother to child HIV-1 transmission by use of a Marcov model. *American Journal of Epidemiology* 1995;**142**:1330-1337.
20. Kalish LA, Pitt J, Lew J, et al. Defining the time of fetal and perinatal acquisition of HIV-1 on the basis of age at first positive culture. *Journal of Infectious Diseases* 1997;**175**:712-715.

21. Bertolli J, St Louis ME, Simonds RJ, et al. Estimating the timing of mother to child transmission on HIV-1 in a breast feeding cohort in Kinshasa, Zaire. *Journal of Infectious Diseases* 1996;**174**:722-726.

22. Grosskurth H, Mosha F, Todd J, et al. Impact of improved treatment of sexually transmitted diseases on HIV infection in rural Tanzania: a randomised controlled trial. *Lancet* 1995;**346**:530-536.

23. Wasserheit J. The significance and scope of reproductive tract infections among Third World women. *International Journal of Obstetrics and Gynaecology* 1989;**Suppl 3**:145-168.

24. Hitchcock P, Fransen L. Preventing HIV infection: lessons from Mwanza and Rakai. *Lancet* 1999;**353**:513-514.

25. UNAIDS. *Mother to child transmission of HIV: Technical update*. 1998;

26. Fawzi WW, Msamanga GI, Spiegelman D, et al. Randomised trial of effects of vitamin supplements on pregnancy outcomes and T cell counts in HIV-1 infected women in Tanzania. *Lancet* 1998;**351**:1477-1482.

27. Biggar RJ, Miotti PG, Taha TE, et al. Perinatal intervention trial in Africa: effect of a birth canal cleansing intervention to prevent HIV transmission. *Lancet* 1996;**347**:1647-1650.

28. UNAIDS & WHO. *Guidance modules on antiretroviral treatments. Module 6: The use of antiretroviral drugs to reduce mother to child transmission of HIV.* 1998;

29. Nduati R. *HIV and Infant Feeding: A review of HIV transmission through breast feeding*. Geneva: World Health Organization/UNAIDS/UNICEF, 1998;

APPENDIX D: LEAFLETS

Leaflet 1

General Overview of Sexually Transmitted Diseases

Sexually transmitted diseases (STDs) infect the reproductive tract as their primary site with transmission occurring during sexual intercourse or from mother to child during pregnancy and childbirth. Individuals at the greatest risk of infection are those who are sexually active or infants born to infected mothers. Multiple infections within the same individual are possible, as is re-infection even after successful treatment.

□ *Epidemiology of common STDs*

The four main global STDs have been identified as syphilis, gonorrhoea, chlamydia and trichomoniasis. Estimates from the World Development Report suggest that in developing countries, STDs (excluding HIV) account for 8-9% of the disease burden in women aged 15 to 44 years and 1,5% in men in the same age group. The vast majority of the disease burden is a result of the complications and sequelae that follow infections. For example, untreated chlamydial infections leads to pelvic inflammatory conditions, pelvic abscess, ectopic pregnancies and infertility and untreated syphilis infections result in increased incidence of fetal loss, stillbirth, congenital abnormalities and low birth weight.

□ *Vulnerable groups*

In most communities there are certain people who may be particularly vulnerable to STDs. These will vary from community to community but may include:

- Teenage girls who are sexually active
- Women who have several partners "in order to make ends meet"
- Commercial sex workers and their clients
- Men and women whose jobs force them to be away from their families or regular sexual partners for long periods of time.

□ *Transmission of STDs*

The main route of transmission is through unprotected penetrative sexual intercourse (vaginal or anal). Other modes of transmission include from mother to child or through transfusions or other contact with blood or blood products.

□□ *The following behaviours influence the main route of transmission:*

- A recent change in partner
- Having more than one partner
- Having a partner who has other partners
- Having sex with "casual" partners, commercial sex workers or their clients
- Continuing to have sex with symptoms of an STD

□□ *A number of social factors influence transmission including:*

- Failure to follow safe sex measures, such as condoms
- Delay in getting STD treatment
- Not taking the full, prescribed course of treatment for STD
- Failure to bring in sexual partners for treatment.

□□ *A number of biological factors also influence transmission including:*

- Age: young women are particularly susceptible
- Gender: it is easier for a woman to become infected by a man, than for a man to be infected by a woman
- Circumcision: circumcised men are less likely to get an STD than uncircumcised men.

□□ *The effect on society*

- The social and emotional burden of STDs is enormous. They place a heavy financial burden on families, communities and health services. In one African country, more then 70% of the budget for antibiotic drugs was used for STD treatment. STDs also reduces the productivity of men and women in their most productive period of their lives.
- STDs can be devastating. Some complications include:
- Chronic abdominal pain or infertility in women
- Potentially blinding eye infections or pneumonia in infants
- Death due to sepsis, ectopic pregnancy and cervical cancer
- Spontaneous abortion
- Urethral stricture in men
- Infertility in men
- Increased risk of HIV transmission
- Social effects of an STD and subsequent infertility might also include beating, divorce or abandonment.

□ *STD syndromes*

While there are more than 20 kinds of organisms that can spread through sex, these different STDs tend to cause similar signs and symptoms. Fore example, discharge from the penis or vagina is a common STD symptom. Each set of symptoms and signs are called a syndrome. In the table below are some of the common syndromes and the STD which cause them.

Syndrome	**STD which cause them**
Urethral discharge	Gonorrhoea Chlamydia
Vaginal discharge	Trichomoniasis Bacterial vaginosis Candidiasis Gonorrhoea Chlamydia
Ulcer/s	Syphilis Chancroid Donovanosis
Lower abdominal pain	Gonorrhoea Chlamydia Anaerobic bacteria

□ *Specific diagnosis and treatment*

Instructions for the specific treatment of each STD is beyond the capacity of this document. The WHO booklet *STD Case Management Workbook 4* (1995) is a very useful resource for this purpose. Individual countries and regions will also often have treatment schedules for common STDs.

Leaflet 2

Background information on HIV and AIDS

□ *What are HIV and AIDS?*

□□ *HIV infection*

The human immunodeficiency[1] virus (HIV) was identified in 1983 and is a member of a class of viruses called Retroviruses[2]. Viruses are the smallest infectious agents of plant and animal tissues. To cause a disease viruses must enter living cells, unlike bacteria, which are able to survive outside cells. Viruses are totally dependant on living cells to survive as they use their host cell's own replication process in order to reproduce themselves.

HIV infection causes severe damage to the immune system by slowly destroying the ability of the human body to naturally defend against infections. This process of slow collapse of the immune system usually takes from five to ten years before a person develops AIDS. When a person's immune system is not functioning normally she or he is said to be immunocompromised[1] or immunosupressed[1].

□□ *AIDS*

It is incorrect to talk about the "AIDS virus". Acquired Immunodeficiency Syndrome (AIDS) is diagnosed when a person with HIV infection becomes sick with one or more opportunistic infections that a healthy person would be unlikely to contract. Some examples of opportunistic illnesses are oesophageal candidiasis[3], penicilliosis[4], herpes simplex, toxoplasmosis, cervical cancer and *Pneumocystis carinii* pneumonia[5]. Wasting syndrome due to HIV infection has also been identified as an AIDS illness. Tuberculosis (TB) is resurging to epidemic proportions in many parts of the world and it is highly likely that the HIV epidemic is influencing this increase. When TB and HIV come together in the same population the effect is explosive as people are far more likely to develop active TB. Co-infection with HIV usually causes TB to be more resistant to treatment.

□ *Spread of HIV*

HIV spreads silently because most transmission occurs before people have symptoms and are unaware that they are infected. There is no vaccine against HIV or a cure, and death from AIDS is the inevitable outcome. Few people, especially in developing countries, survive more than 2 years after developing AIDS.

The most effective way of controlling the spread of the infection is to change attitudes and behaviours among individuals and communities through increased awareness and improved access to supportive resources and services. The role of leaders and decision makers in supporting HIV/AIDS policies and programs is the key to enabling change.

□□ *Known routes of HIV transmission include:*

- Sexual contact (heterosexual, bisexual or homosexual);
- Contaminated needles: used for intravenous drug infection or for general purposes in areas where disposable needles or adequate sterilization equipment are scarce;
- Mother-to-child transmission;
- Blood transfusions, blood products and organ/tissue transplants;
- Injuries in healthcare settings, for example, people working with blood products, sustaining needlestick injuries.

□□ *There is <u>NO</u> significant evidence to support claims that HIV may be transmitted by:*

- Insects, for example, mosquitoes which penetrate the skill and blood supply;

- Saliva, for example, kissing, sharing food and eating or drinking utensils;
- Sneezing or coughing;
- Shared use of facilities, for example, toilets, swimming pools, towels;
- Casual social contact, for example, shaking hands, hugging.

□ *HIV and development*

HIV epidemics threaten social and economic development in many countries around the world. Often, the most affected countries are those with the fewest resources, especially for prevention and care programs.

□ *Vulnerability*

Vulnerability to the HIV epidemic is directly related to a country's social, economic and cultural dynamics and norms. Factors such as poor health status of the population, lack of infrastructure and basic services, limited education and employment opportunities, urbanization, and gender disparities all contribute to conditions in which HIV/AIDS flourishes.

Youth are the most highly vulnerable group to HIV as they are unaware of basic sexual and reproductive information and often unable to negotiate changes in their own and their peer groups' behaviours. Women are biologically and socially more vulnerable than men to HIV infection.

Millions of children are vulnerable to and seriously affected by the AIDS epidemic. Not only are they being infected by the virus themselves through parents who are infected, but many become "AIDS orphans" through losing parents to AIDS.

□ **Some terminology and words explained:**

1 **Immunodeficiency, immunocompromised, immunosuppressed**: These terms refer to a similar concept, that is a reduction or faltering of the normal immune system. Generally, once a person is infected with HIV the immune system gradually loses its ability to function normally, and this is when infections and malignancies occur.

2 **Retrovirus:** HIV is a member of a class of viruses known as retroviruses. These viruses store their genetic material as ribonucleic acid (RNA) unlike most viruses which store their genetic material as deoxyribonucleic acid (DNA). Before replication can occur, the RNA must be converted back to DNA, hence the Latin term *Retro,* meaning turning back.

3 **Oesophageal candidiasis:** *Candida albicans* (thrush) is a fungal infection. It is one of the early signs that the immune system is faltering. It often infects the oesophagus and causes pain and difficulty when swallowing.

4 **Penicillinosis:** The fungus *Penicillium marneffei* causes this illness. The infection is endemic in southern China and South East Asia. Symptoms include fever, weight loss, anaemia, cough and skin lesions.

5 ***Pneumocystis carnii* pneumonia:** This respiratory tract infection causes a dry cough, shortness of breath and sometimes painful breathing. It used to be the most common presenting illness in people with HIV, but is less so now with the widespread use of preventive medications.

Leaflet 3

Hepatitis Infections

HEPATITIS B

Hepatitis B virus (HBV) was discovered in 1966 and currently infects more than 350 million people worldwide. It is the leading cause of chronic hepatitis, cirrhosis and hepatocellular carcinoma, accounting for 1 million deaths annually. Most HBV infections occur as a result of sexual activity, needle sharing, from mother to child during pregnancy or birth or occupational exposure.

Most people who are exposed to HBV either do not become ill, or if they do, they recover completely and the virus disappears from their blood. However, between 5 and 10% of adults who get infected keep the virus in their blood for many years and can infect others. These people are known as chronic carriers with the potential to transmit the virus to others. HBV carriers can progress to cirrhosis and hepatocellular carcinoma. The rate of progression to these illnesses varies according to the state of the immune system, age, serologic stage of disease and geographic and genetic factors.

Infants who contract HBV at birth have a 90% chance of becoming chronic carriers. These children have a lifetime risk of more than 25% of dying from chronic liver disease or primary hepatocellular carcinoma.

□ *Interpreting Hepatitis B results*

HBV surface antibody (Anti-HBs)	Indicators past infection which is now cleared or vaccination. It is good indictor of immunity.
HBV surface antigen (HbsAg)	Indicates infectious serum and chronic carrier status
HBV e antigen (HbeAg)	Indicates active replication of HBV and often, active hepatitis. It is a good predictor of infectivity of blood.
HBV core antibody (Anti-HBc)	Detectable within several weeks of an infection and last about 10 months. Positive result indicates recent infection.

□ *Mother-to-child infection*

The perinatal HBV infection rate can be as high as 90% in infants born to HbsAg and HbeAg positive mothers and drops to around 17% in mothers who are only HbsAg positive. Transmission occurs at or soon after delivery.

□ *Hepatitis B vaccination*

The global burden of Hepatitis B infection could be reduced more cost effectively if vaccination was targeted at highly endemic areas. Many of these countries however do not have the resources to introduce vaccination. Often, health care workers are at greater risk of transmission than the general population and therefore a greater effort could be made to ensure these people were vaccinated.

HEPATITIS C

In the last decade Hepatitis C has emerged to become a major public health problem worldwide, responsible for chronic liver disease and a variety of other manifestations.

Hepatitis C is a blood-borne viral infection. It is predominately transmitted through shared or contaminated needles, blood transfusions and from mother to child. It may also be transmitted through sexual activity although this is not certain. The use of non-disposable needles and syringes and the practice of traditional healing techniques involving skin punctures or tattoos contribute to the spread of infection. Breast feeding has not been shown to transmit hepatitis C.

The prevalence of hepatitis C varies, from 1% to 2% in most developed countries to a high of around 15% in countries such as Egypt.

Hepatitis C is often a silent infection with people being symptom free for many years. Hepatitis C infection becomes chronic in about 85% of individual who become infected. Chronic infection is associated with symptoms such as fatigue, joint pain and pain over the liver. About 20% of people with chronic infection go on to develop cirrhosis in the first 10 to 20 years.

Mother-to-child infection

There is a small risk that hepatitis C will be transmitted from mother to baby. This risk is increased if pregnant women are in the acute phase of the infection or they have serious liver damage with high levels of circulating virus. Transmission via breast milk is very unlikely.

Preventing Hepatitis C transmission

Prevent contact with other people's blood. All blood, even dried blood, has the potential to be harmful.

If you use drugs, never use needles, syringes, tourniquets, spoons, water, filters or straws for snorting after anyone else. Small amounts of blood can be left behind which can transmit hepatitis C even if you clean the equipment.

Use tattooists or body piercers who sterilise their equipment between customers.

Don't use razors, nail clippers, toothbrushes or other close personal grooming items after anyone else. If someone who has hepatitis C cuts themselves shaving, cuts their skin or has bleeding gums, the virus can be transmitted if these items are reused by someone else.

Use a condom during anal or vaginal sex to avoid blood to blood contact and to protect you and your partner from other sexually transmissible diseases.

Protect yourself when giving first aid to someone who is bleeding. Gloves, masks and glasses help prevent any exchange of blood if you have a cut on your hand or skin, or blood spurts to the eyes.

HEPATITIS A

Hepatitis A is the least serious hepatitis infection, lasting from one to three weeks. Most people recover completely.

Hepatitis A is spread through ora-faecal contact. Transmission occurs if an infected person handles food and eating utensils to be used by other people; by touching nappies and towels soiled with faeces, by oral/anal sex; swallowing water contaminated by sewage; by eating shellfish contaminated by sewage.

The symptoms include feeling unwell, aches and pains, fever, nausea, appetite loss, darkened urine and jaundice (yellowing of eyes and skin).

Prevention of transmission

Thorough handwashing with warm water and soap before handling food, after using the toilet or handling nappies or anything soiled by faeces. People with hepatitis A shouldn't handle food to be eaten by others - don't share food, drinks, cigarettes with anyone who is infected or who is caring for an infected person.

A vaccine is available for people at high risk of contracting Hepatitis A.

Leaflet 4

Universal Precautions

Using universal precautions in midwifery care

Blood-borne infections including HIV/AIDS, some sexually transmitted diseases (STDs), and Hepatitis infections such as Hep B and Hep C, can be transmitted from patient to patient, from patient to health care worker and from health care worker to patient. ***Universal precautions*** means taking care of yourself and the women and babies for whom you care so that blood and other body fluids do not go from one person to another. This reduces the risk of transmission of these infections from one person to another.

Universal precautions should be practised at ALL times, with ALL patients

□ ***The basic principles*** of universal precautions include:

- Preventing injuries from needles and other sharp objects
- Preventing exposure of open wounds and mucous membranes
- Preventing transmission via contaminated instruments
- Avoiding spills of blood or other body fluids onto surfaces
- Disposing of waste appropriately

The specific infection control precautions as recommended by the World Health Organization (WHO) are reproduced below (1).

□□ ***Preventing injuries from needles and other sharp objects***

1 ***Never*** bend, break or recap disposable needles. Dispose of them immediately with the attached syringe in a thick cardboard, glass, heavy plastic or metal container. This should be located as close as possible to the area where the needles are used.

2 Place disposable sharp instruments in a similar container. When these containers are full, seal them carefully and burn or bury in a hygienically controlled sanitary landfill.

3 Place re-useable sharp instruments (needles, scalpels etc) in a glass, heavy plastic or metal container immediately after use. Wear thick gloves to carefully clean needles and other sharp instruments before disinfection or sterilization.

4 Avoid unnecessary handling of contaminated sharp instruments, including needles.

□□ ***Preventing exposure of open wounds and mucous membranes***

1 Cover broken skin or open wounds with watertight dressings.

2 Wash hands with water and soap immediately after any contact with blood and other body fluids.

3 Specimens of blood and other body fluids should be placed in containers with secure lids to prevent leakage during transport. Avoid contamination of the outer surface of the container.

4 Wear suitable gloves when expecting exposure to blood or body fluids and when handling blood specimens.

5 Linen soiled with blood and other body fluids should be transported in leak-proof bags, or folded with the soiled part inside. It should be washed in hot water with detergent.

6 Planning for childbirth in hospital or the home should include obtaining gloves, aprons, soap and water.

7 Wear protective glasses during delivery;

8 Mouth to mouth suction of newborns should be replaced with mechanical or electric suction devices.

9 Resuscitation bags should be made available in health care settings in which resuscitation is likely to be needed.

□□ *Preventing transmission via contaminated instruments*

1 All re-usable instruments must be cleaned and disinfected or sterilized between use.

2 Disposable equipment must be used only once and then appropriately discarded, i.e. burnt or buried.

3 Promote oral medication rather than medication by injection when possible, if clients prefer injections, explain why oral medication is preferable.

□□ *Spills of blood or other body fluids onto surfaces*

1 Remove blood or other body fluids with paper towels or old newspapers. Take care not to let blood get on the hands (i.e. wear gloves where possible). Cloth towels may be used but will then be contaminated and must be handled as soiled linen.

2 Wash surfaces with hot water and soap.

3 Decontaminate with intermediate or low level disinfection, e.g. sodium hypochlorite.

□□ *Disposal of waste*

1 Liquids, such as blood, can be flushed into a sanitary sewer or pit latrine.

2 Solid waste, for example, blood soaked dressings, sanitary pads and napkins, placentas or tissue biopsy specimens should be burned or carefully buried.

***CAUTION*:** avoid placing these materials into open dumps to which children and animals have access, and avoid burying materials where there is a possibility of their being dug up or where they might contaminate water sources.

□ *Reference*

(1) World Health Organization (1993) *HIV prevention and care: Teaching Modules for Nurses and Midwives,* Geneva: Global Programme on AIDS, WHO.

Leaflet 5

How to develop policies and protocols to suit your own situation

What is the difference between a strategy, a policy and a protocol?

A strategy is a plan of action. It looks at the overall situation or problem and identifies how the situation will be progressed, or how the problem will be addressed. The government in your country may have a strategy for dealing with the problem of HIV/AIDS. It will probably include, amongst other things, obtaining information about the level of the problem, who will be involved in addressing it, what will be done at national level and what will be done at local level, which services will be developed to address the problem, what resources will be needed, etc.

A policy identifies the process or way for dealing with a particular situation. For example, where HIV/AIDS is concerned, at local level there might be a policy which identifies a particular way in which women with HIV/AIDS will be cared for. For example, it could be that the policy is that every woman will receive counselling and advice about her condition, and that midwives will provide the service.

A protocol is a detailed description of the systematic way in which a particular activity or treatment is to be carried out. Where STDs/HIV/AIDS is concerned, a protocol should describe the exact way in which needles should be dealt with after use to prevent needle stick injury.

Developing a policy or protocol

In principle, the policies or protocols which are most likely to be successfully implemented are those which have be developed in conjunction with those who will implement them.

Look around

Look at the current practices in your area

Question

Ask yourself questions about the practices in your area: why do you do them, where did they come from, is this the best way to practice, is there a better way?

Talk to others

Discuss the practices you have begun to question with other midwives, nurses and doctors. Sometimes forming an interest group or a small committee which will meet and discuss changes is very useful. This group can help you develop a policy or protocol and support its implementation.

Reviewing the evidence

Choose one practice to work on to begin with, or only choose several if they relate to a similar issue. Review the evidence and the possible policies or protocols for practice which you want to improve. The evidence might be found in recent books, journals and/or information and recommendations from reports from government, WHO and other agencies.

Constraints and feasibility

Discuss constraints you will find in implementing the suggested policy or protocol. Look at what would be feasible considering your resources, patient population, the evidence and the expected benefits from changing. Look at the strengths, weaknesses, opportunities and threats to changing

or introducing the new policy or protocol. This information will help in the formulation of the policy or protocol and in how you decide to implement it in your clinical area.

□□ *Drafting the new policy or protocol*

Start by developing a draft of the new policy or protocol. You could use these suggested headings. To fill in the sections, ask yourself the questions that accompany each heading.

1 ***Practice:*** what is the practice that we are changing, or that we are developing a policy or protocol for?

2 ***Optimal outcome:*** what would we hope would happen as a result of any change in this practice? What is the best possible effect?

3 ***Person:*** who does this practice refer to, who is it to be performed on? (It might be specific patients or staff members)

4 ***Best practice principles:*** what are the principles that lead us to the new practice? What does the evidence tell us about the practice?

5 ***Actions:*** what action/s can we do that fit with the best practice principles and will give us the best possible outcome?

6 ***Evaluation:*** how will we know that the policy or protocol has been successful? What can we measure that will help us understand whether it has been implemented and has achieved its aims.

□□ *Talk to others again*

Once the policy or protocol has been developed, talk to a wider group of your colleagues. Get their input and feedback about the policy or protocol. Find out what the barriers are to implementing it. Seek their assistance in overcoming these barriers. This will help get others involved in the process and involvement of as many people as possible will mean your chance of successful implementation is greater.

□□ *Education and implementation*

Before a policy or protocol is implemented, those who will be affected by the change need to understand why it is important. If people understand the reasons behind a new policy or protocol they are much more likely to make the necessary changes to their practice. When you implement the new policy, make sure everyone knows about it.

□□ *Evaluation*

Some form of evaluation is usually very useful. An evaluation will tell you if your policy or protocol has been implemented and if it makes a difference to the practice that you identified needed to change. This means you will collect some information either about the change in practice or the outcomes of the change.

□□ *Making changes*

The evaluation will tell you if you need to revise the policy or protocol. Meet with your working group of colleagues again and work out what worked and what did not work. Then you plan your changes to address the problems and re-implement the policy or protocol.

□□ *An ongoing process*

All policies and protocols need ongoing evaluation and changes. This is for a range of reasons including changing needs, changing situations and resources, new people coming into your organization with different ideas and more up to date evidence or information available. This is a normal part of any policy and protocol development - ***ongoing evaluation and changes should always be built into the process of making changes and improving practice.***

Leaflet 6

Preparation of a case study for group work on Objective 1

The increased risk of maternal and neonatal mortality associated with STDs/HIV/AIDS

Objective 1: To identify **sexual health problems**, particularly related to STDs/HIV/AIDS, which **increase the risk of maternal and neonatal mortality and morbidity** at global, national, community and individual level.

The case study will describe and compare your personal experience of two ***similar*** families, or two ***similar*** mothers and babies in which the one had HIV/AIDS, and the other did not. This will help to show the **sexual health problems** and the **increased risk of maternal and neonatal mortality or morbidity** related to STDs/HIV/AIDS. As factually, personally and briefly as possible prepare your case study using the following headings:

Case 1:

Describe a family, or mother and baby you have been involved with personally where the mother or other family members had HIV/AIDS:

1 Background information - Give the ages, number of children, and general health of those concerned;

2 The clinical situation which first brought the family, or mother and baby to your attention and care, and describe briefly the course of the care you or others provided;

3 What sexual health problems, if any, did the mother or her husband/partner have?

4 Did the mother, the baby, or any other member of the family die from an AIDS/HIV related condition?

5 What, if any, health problems were the mother, baby or other members of the family left with?

Case 2:

Describe a family, or mother and baby you have been involved with personally where there was no history of HIV/AIDS:

1 Background information - Give the ages, number of children, general health of those concerned;

2 The clinical situation which first brought the family, or mother and baby to your attention and care, and describe briefly the course of the care you or others provided;

3 What sexual health problems, if any, did the mother or her husband/partner have?

4 Did the mother, the baby, or any other member of the family die?

5 Was the mother or any member of her family left with any health problems?

Preparation of a case study for group work on Objective 2

The socio-cultural-economic realities which impact on the lives of women and their families relating to STDs/HIV/AIDS

Objective 2: To explore the **socio-cultural-economic realities** which impact on the lives of women and their families, and midwives, with relation to STDs/HIV/AIDS.

STD/HIV/AIDS are sensitive clinical conditions whose management is often affected by social, cultural and economic factors. From your recent experience describe the case of one woman you have been involved with as factually, personally and briefly as possible using the following questions:

1 Background information

- Age of the mother and number and age of her children;
- The health of the mother or whether the mother died from an HIV/AIDS associated condition;
- The health of her husband/partner and children, or whether any of them died from an illness associated with HIV/AIDS.

2 What was the clinical problem which first brought the woman to your notice?

3 How did social, cultural and/or economic factors affect her and her care of which you became aware?

4 What was the effect which those factors had on the care the woman received (or that you were able to give).

5 What were your feelings and attitude to the woman, and what feelings and attitudes towards her did you find in others providing her care? How did you feel about providing care to her?

Finally, you may want to add a word of explanation about how these factors work in your society to help those coming from different cultures understand the problem.

Preparation of material for group work on Objective 4

Development of a strategy, policy or protocol at regional or local level

Objective 4: To identify strategies, policies and protocols to combat STDs/HIV/AIDS at national and local level

In the course of your work have you been involved at any time in the development of a strategy, policy or protocol? If >yes=, please use the following questions to describe as clearly and briefly as you can the **process** which was used. In this instance the subject matter can be anything to do with maternal and newborn health since it is the **process** rather than the **content** which is of interest in the session.

1 Please say whether you are describing a **strategy**, a **policy** or a **protocol** (see Leaflet 5 - Development of policies and protocols)

2 What was the **subject matter**?

3 At what **level** did it apply (local labour ward, local hospital/community, region etc.)

4 Why did it become **necessary** (if you know)?

5 What were the **objectives**?

6 **Who** was involved in the process of development, and why were these people involved?

7 **How** did they go about it?

- What meetings took place?
- Was there consensus building?
- What evidence was gathered?
- Who was it discussed with?
- What advocacy was needed?

8 What **"outside" factors** had to be considered (e.g. legislation to permit drug administration, etc.)?

9 Describe the **steps taken to implement** it and educate those who used it?

• Please use the three sections in this leaflet to prepare and bring with you case studies, and material for the group work on Objectives 1, 2 and 4.

• Please keep your work brief and confine your responses for each Objective to no more than **one (1) side of A4 paper**.

Leaflet 7

Glossary of terms

The following is a check list of words which appear in the background material for ICM Pre-Congress Collaborative Workshop on STDs/HIV/AIDS:

Retrovirus:

HIV is a member of a class of viruses known as retroviruses. These viruses store their genetic material as ribonucleic acid (RNA) unlike most viruses, which store their genetic material as deoxyribonucleic acid (DNA). Before replication can occur, the RNA must be converted back to DNA, hence the Latin term *Retro*, meaning turning back.

Antiretroviral drugs:

Drugs or medications that are used in HIV infection as they act against the replication of retroviruses like HIV.

Chlamydial infection:

Sexually transmitted disease caused by the organism *chlamydia trachomatis.*

Chlorhexidine:

Antiseptic solution commonly used in hospitals.

Cryptosporidia:

An enteric pathogen that causes a diarrhoeal illness.

Dermatitis:

Skin inflammation.

Dry sex:

Sexual intercourse where vaginal lubrication is absent or removed.

Epidemiology:

The study of epidemics.

Gonorrhoea:

Sexually transmitted disease caused by the organism *Neisseria gonorrhoea.*

Herpes simplex:

Viral infection that commonly causes skin lesions. The lesions are usually on the face and/or genitals and are transmitted from person to person.

Immunodeficiency:

Reduction or faltering of the normal immune system. Generally, once a person is infected with HIV the immune system gradually loses its ability to function normally and this is when infections and malignancies occur.

□ Mycobacterium avium complex:

An infection caused by *Mycobacterium avium intracellulare*. Symptoms are generally non-specific and include fever, weight loss, anaemia, enlarged liver and chronic diarrhoea.

□ Non-percutaneous:

Does not penetrate skin or mucus membranes.

□ Parenteral transmission:

Transmission through contact with blood, for example, blood transfusion, needle stick injury.

□ Paronychia:

Inflammation of cuticles.

□ Percutaneous:

Penetrates skin or mucus membranes.

□ Pneumocystis *carnii* pneumonia:

Pneumonia caused by the organism *Pneumocystis carnii* which is common in people with HIV infection and reduced immunity.

□ Seroprevalence:

Amount of people with HIV infection.

□ Syphilis:

Sexually transmitted disease caused by the bacteria *Treponema pallidum.*

□ Toxoplasmosis:

An infection in the brain caused by a protozoal parasite called *Toxoplasma gondii*.

□ Trichomoniasis:

Sexually transmitted disease caused by the protozoan *Trichomonas vaginalis.*

□ Universal precautions:

Precautions taken by health care workers on all patients to prevent transmission of infection via blood or other body fluids to or from carers and those they care for.

□ Urethritis:

Inflammation of the urethra commonly causing pain and/or discharge.

□ Vaginal lavage:

Washing of the vagina using a solution like chlorohexidine.

□ Widow cleansing:

Cultural practice in some regions where a widow is married to (or has a sexual relationship with) her late husband's brother.

Additional words:

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Abbreviations appearing in the documentation:

ARV	Antiretroviral drugs
ELISA	Enzyme-linked immuno-absorbent assay (that is, a simple test for HIV antibodies)
IDU	Injecting drug users
STDs	Sexually transmitted diseases
UNAIDS	United Nations Program in HIV/AIDS
UNICEF	United Nations Children=s Fund
VCT	Voluntary counselling and testing
WHO	World Health Organization
ZDV	Zidovudine, the most commonly used antiretroviral drug

(Content of leaflets prepared by Caroline Homer for use at the ICM Pre-Congress Collaborative Workshop, Manila, Philippines, May 1999)

APPENDIX E: WORKSHOP PROGRAM

ICM Pre-Congress Collaborative Safe Motherhood Workshop

Frontiers of Midwifery Care:
STDs, HIV and AIDS in Safe Motherhood

Aim and Objectives

Aim: To strengthen midwives= contribution to the care of women and babies through the prevention and treatment of STDs/HIV/AIDS

Objectives:

1 To identify sexual health problems, particularly related to STDs/HIV/AIDS, which increase the risk of maternal and neonatal mortality and morbidity at global, national, community and individual level.

2 To explore the socio-cultural-economic realities which impact on the lives of women and their families, and midwives, with relation to STDs/HIV/AIDS.

3 To review the knowledge skills and attitudes required by midwives in practice:

- To discuss current basic areas of practice
- To examine the range of emergent responses to STDs/HIV/AIDS:
    - client friendly services
    - prevention of mother-to-child transmission
    - prevention of occupational infection.

4 To identify strategies, policies and protocols to combat STDs/HIV/AIDS at national and local level.

5 To explore innovative approaches to care that midwives use to protect themselves from infection and to promote safe practices.

6 To seek the means of educating women to protect themselves and their families.

7 To formulate action plans which will:

- strengthen midwifery input into national Safe Motherhood and STDs/HIV/AIDS strategies for the management of infectious disease;
- improve local practice with regard to infection prevention and management.

PROGRAMME	
	Wednesday 19 May
7 pm:	Opening ceremony
7.30 pm:	Reception for participants and guests
8.15 pm:	Introductions and group meetings
9 pm:	Close
	Thursday 20 May
9 am:	Review Wednesday and troubleshooting
Objective 1:	To identify sexual health problems, particularly related to STDs/HIV/AIDS, which increase the risk of maternal and neonatal mortality and morbidity at global, national, community and individual level.
	Speaker and session facilitator: Sandra Anderson
9.15 am:	Plenary:
10.15 am:	Coffee Break
10.45 am:	Workgroups and feedback using case studies prepared by participants prior to the workshop
12.30 pm	Lunch
Objective 2:	To explore the socio-cultural-economic realities which impact on the lives of women and their families, and midwives with relation to STDs/HIV/AIDS.
	Speaker and session facilitator: Dorothy Namate
1.30 pm:	Plenary:
	Workgroups and feedback using case studies prepared by participants prior to the workshop
4.15 pm:	Display/Poster session of material such as posters, protocols, education leaflets and other audio visual education material brought by participants
4.40 pm:	Individual work on action plans with facilitation available

	Friday 21 May
8.30 am:	Review of Thursday and troubleshooting
Objective 3:	To review the knowledge skills and attitudes required by midwives in practice:
Objective 5:	To explore innovative approaches to care that midwives use to protect themselves from infection and to promote safe practices
	Facilitator: Caroline Homer
8.50 am:	Session/group work to discuss the current basic areas of practice
10 am:	Coffee
10.30 am to 12.30 pm & 1.30 pm to 2.45 pm (Lunch at 12.30pm)	3 separate Workshops to examine the range of emergent responses to STDs/HIV/AIDS • Client friendly services: Leaders: Anne Thompson & France Donnay • Prevention of mother-to-child transmission: Leaders: James McIntyre & Evelyn Keswa • Prevention of occupational infection Leaders: Sandra Anderson & Caroline Homer
Objective 4:	To identify strategies, policies and protocols to combat STDs/HIV/AIDS at national and local level • Principles of strategy and protocol development • Examples of the development of strategies and protocols to cover international to local and individual.
	Speaker and session facilitator: France Donnay, supported by Anne Thompson and Duanvadee Sungobol
2.45 pm:	Plenary
	Group work: Development of srategies/ protocols to address identified issues (2-3 in each group)
4.30 pm:	Individual work on action plans with facilitation available

	Saturday 22 May
8.30 am:	Review of Friday and troubleshooting
Objective 6:	To seek the means of educating women to protect themselves and their families.
9 am	Round table discussion conducted by participants
10.30 am:	Coffee
Objective 7:	Finalising action plans
11am:	Participants will bring together work on their individual/country plans and hand the plans in for photocopying
11.45 am:	Feedback: Report back from the group work
12.30 am:	Closing remarks and return of action plans to participants.
1 pm	Lunch

APPENDIX F: MAPPING EXERCISE PROFORMA

United Nations Children's Fund

UNFPA

International Confederation of Midwives

World Health Organization

UNAIDS

ICM/UNFPA/WHO/UNICEF/UNAIDS pre-Congress workshop

Frontiers of midwifery care: STDs, HIV and AIDS in Safe Motherhood

Manila, Philippines, 19-22 May 1999

DATA SHEET FOR MAPPING COUNTRY PROFILES REGARDING STDs/HIV/AIDS

Country Data for:

Information sought	**Data**	**Source**
1. Population size		
2. Crude Birth Rate		
3. Total Fertility Rate		
4. Maternal Mortality Ratio (per 100 000 live births)		
5. Neonatal Mortality Rate		
6. Average age at marriage		
7. Contraceptive prevalence rate		
8. % women seen at least once by trained staff during pregnancy		
9. % births attended by trained staff		
10. % Caesarean section per total births		
11. Number of centres providing integrated MCH/FP/RTI/HIV services per 500 000 population		
12. Number of qualified midwives practising		
13. Incidence of syphilis		
14. Incidence of Hepatitis B and C		
15. Incidence of HIV		
16. Number of AIDS deaths in the population last year		
17. What % of pregnant women are tested for syphilis?		
18. Do you have written protocols for management of RTIs, HIV/AIDS?		
19. What % facilities have VCT (voluntary counselling and testing) available for HIV status?		
20. Is there a national policy on the reduction of MTCT (mother-to-child transmission) of HIV?		
21. What is the female national literacy rate?		

APPENDIX G: CASE STUDY EXAMPLES FROM PARTICIPANTS

1. Mrs X, 20 years old (gravida 2 para 1), came to Mulago Hospital (Uganda) to attend antenatal clinic. She was tested for HIV at 34 weeks and her results were positive. She had dropped out of school due to lack of money, her father died and she married early at 16 for financial support. Her husband died of HIV/AIDS when she was 18 years and she remarried one year later. Her general health was good. She was asked to bring her husband for counselling, treatment and blood testing and he also tested HIV positive. The baby was HIV positive and is still alive at two and a half years of age although his developmental milestones are delayed and has chronic ear infections. He has completed all his immunizations. Both parents are well and keep coming to the clinic to ask if they can try and have another baby who could be HIV negative.

2. Mrs Z came to us at Mulago Hospital (Uganda) pregnant at 17 years old. She was a primgravida, married in a polygamous relationship (wife 3) and worked as a house girl. Her general health was good, except that she has had trichomonas. Her sister had died of AIDS. She came to us after hearing about the research study from a friend. She was HIV negative, and when she found this out she was very excited. She received antenatal care, health education and she was acquainted with methods for the prevention of HIV/AIDS/STDs. We asked this woman to bring her husband for testing. He refused to come and beat her up and wanted to throw her out.

3. Mrs A is 26 years old (gravida 4, para 3), 38 weeks pregnant and unemployed. Only one child is still alive. The first child had diarrhoea and failed to thrive and died at 4 months. The second child had recurrent fevers and diarrhoea and died at six months. The third child is alive and was found to be HIV negative. Her husband had AIDS and was sent away from his place of work due to his illness. Their neighbours and husbands relatives knew about their status and therefore, they had to move house. Mrs A presented to Mulago Hospital (Uganda) unwell, with weight loss and a six month history of cough and recurrent fevers. Examination and investigation revealed pulmonary tuberculosis. She was worried that when her husband died, his relatives would take all the property and chase her away, leaving her no support, especially for her children.

4. BN was a young woman aged 34 years, married to a local secondary school teacher in Dar-es Salaam in Tanzania. She had three children aged 7 years, 4 years and 1 month. BN was also a teacher of biology in the same school as her husband. BN's general health was good although she periodically complained of chest pain and coughing. After the birth of her last child the cough became worse and was accompanied by fever and she developed a swollen leg. She was admitted to hospital and tested positive for HIV antibodies. BN's husband was an alcoholic who was known to have affairs with other women who were known to be HIV positive. BN was discharged from hospital and died a month later. Her baby also died shortly after and her husband had by now become unwell. The older children were taken by their aunt.

5. A taxi driver (from Romania) 28 years of age had been infected with HIV through heterosexual transmission. He divorced in 1994 and remarried a 22 year old women, whom he did not tell of his infection. She became pregnant and was found to be HIV positive. Their baby also contracted the infection. In 1996, the baby and mother were brought to the attention of the health clinic. The baby had recurrent fevers, chronic diarrhoea and was not thriving. The baby died before he was four years old.

6. In Romania in 1993, a 5 year old boy was involved in a car accident and required a blood transfusion. He became infected with HIV due to contaminated needles. This boy

developed skin problems, pneumonia and behavioural problems. He refused to go to school. Recently he has started on antiretroviral treatment (ZDV and ddI).

7. In Kenya, there are people who still do not believe in the existence of AIDS. When someone is suffering from AIDS they consider it a curse or witchcraft. This case is about a women aged 30 years who is a teacher by profession although she has been unable to work for the past 6 months due to ill health. The whereabouts of her partner are unknown as he left when the woman became sick. Their child is 5 years old and quite healthy. The woman believes her illness is because she has been bewitched and so seeks traditional treatments as well as treatment from hospitals. She is socially withdrawn, depressed and has no means of supporting herself and her child.

8. This is the case of a 35 year old women in The Philippines. This woman is a commercial sex worker who was diagnosed with HIV after a routine health check. Her 10 year old son is healthy and lives with his mother. They have moved to accommodation that the government provides for HIV positive people and their dependants. Living here helps the woman comply with treatment and she is learning new skills that may enable her to set up a small business in the future.

9. This Tanzanian woman is 24 years old with four children. Her husband died in 1998 from tuberculosis and AIDS. She has been attending the STD clinic at the local hospital for treatment for syphilis and acute pelvic inflammatory disease. Her youngest child is 2 years old and currently has extensive herpes zoster. All her older children are in good health. She had pretest counselling and is currently being tested for HIV.

10. Ester is a 34 year old Tanzanian women with two children aged 5 and 10 years. She came to the attention of health workers when she presented with herpes zoster and lymphadenopathy. After some time she agreed to have counselling and testing for HIV and she and her youngest child were found to be positive. She then became involved in a project which helps women with income generating activities and she was able to continue her business. In 1998, her youngest child became ill and died. Ester is still alive although she suffers from intermittent fevers.

APPENDIX H: ACTION PLAN PROFORMA

ICM/WHO/UNICEF PRE-CONGRESS COLLABORATIVE WORKSHOP
Manila May 1999

Frontiers of Midwifery care: STDs and HIV/AIDS in Safe Motherhood

PERSONAL ACTION PLAN

NAME/S.....

COUNTRY.....

OBJECTIVE (What needs to be done)	ACTIVITIES PLANNED	WHO AND WITH WHOM	WHEN		RESOURCES			
					AVAILABLE		SUPPLEMENTARY	
			BEGIN	END	HUMAN	FINANCE	HUMAN	FINANCE

APPENDIX I: EVALUATION FORMS

INTERNATIONAL CONFEDERATION OF MIDWIVES
10 Barley Mow Passage, Chiswick, London W4 4PH, UK

EVALUATION OF PRE-CONGRESS COLLABORATIVE SAFE MOTHERHOOD WORKSHOP

"Frontiers of Midwifery Care: STDs/HIV/AIDS in Safe Motherhood"

Manila, PHILIPPINES, 19 – 22 May 1999

Please rate on scale:

	Strongly Agree	**Agree**	**Disagree**	**Strongly Disagree**
The pre workshop packages made the intention of the workshop clear				
The pre workshop packages enabled me to easily prepare the: i) case studies				
ii) material for the display/poster session				
The introduction made the objectives of the workshop clear				
Session for Objective 1 i) The Speaker covered the subject area well				
iii) The Speaker facilitated the session well				
ii) The case studies assisted me in achieving objective 1				
Session for Objective 2 i) The Speaker covered the subject area well				
ii) The Speaker facilitated the session well				
iii) The workgroups assisted me in achieving objective 2				
Session for Objectives 3 & 5 – Part 1 i) The Speaker covered the subject area well				
ii) The Speaker facilitated the session well				
iii) The session work assisted me in achieving objective 3 & 5				
Session for Objectives 3 & 5 – Part 2 ***Workshop 1 – Client-Friendly services*** i) The workshop leaders facilitated the session well				

Workshop 2 – Prevention of mother-to-child transmission i) The workshop leaders facilitated the session well				
Workshop 1 – Prevention of occupational infection i) The workshop leaders facilitated the session well				
Session for Objective 4 i) The Speaker covered the subject area well				
ii) The Speaker facilitated the session well				
iii) The group work assisted me in achieving objective 4				
Session for Objective 6 i) The round table discussion assisted me in achieving objective 6				
ii) I was encouraged to speak				
iii) I felt my contribution was valued by the group				
Session for Objective 7 i) The action plans will help me towards achieving objective 7				
ii) The Speaker facilitated the session well				
I will be returning home with definite plans to i) Strengthen midwifery input into national Safe Motherhood and STD/HIV/AIDS strategies				
ii) improve local practice in relation to infection prevention and management				
The workshop was well organized				

General Comments re the Workshop:

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Name/ Signature: Please return by 22nd May 1999

INTERNATIONAL CONFEDERATION OF MIDWIVES
10 Barley Mow Passage, Chiswick, London W4 4PH, UK

FACILITATORS AND RAPPORTEURS EVALUATION OF PRE-CONGRESS COLLABORATIVE SAFE MOTHERHOOD WORKSHOP

"Frontiers of Midwifery Care: STDs/HIV/AIDS in Safe Motherhood"

Manila, PHILIPPINES, 19 – 22 May 1999

The collaborative partners very much appreciate your input into the workshop. To help us improve the workshops in the future we would appreciate some feedback on the workshop from your point of view

Please rate on scale:

	Strongly Agree	**Agree**	**Disagree**	**Strongly Disagree**
I was clearly informed of my role at the workshop				
The workshop was well organized				
The workshop was organized in a logical order				
The content of the workshop was relevant to the objectives				

Any other comments re the workshop:

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Name/ Signature: Please return by 22nd May 1999

INTERNATIONAL CONFEDERATION OF MIDWIVES

10 Barley Mow Passage, Chiswick, London W4 4PH, UK

SPEAKERS EVALUATION OF PRE-CONGRESS COLLABORATIVE SAFE MOTHERHOOD WORKSHOP

"Frontiers of Midwifery Care: STDs/HIV/AIDS in Safe Motherhood"

Manila, PHILIPPINES, 19 – 22 May 1999

The collaborative partners very much appreciate your input into the workshop. To help us improve the workshops in the future we would appreciate some feedback on the workshop from your point of view.

Please rate on scale:

	Strongly Agree	**Agree**	**Disagree**	**Strongly Disagree**
The pre workshop package provided sufficient information for me to prepare my session				
The workshop was well organized				
The workshop was organized in a logical order				
The content of the workshop was relevant to the objectives				

Any other comments re the workshop:

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Name/ Signature: Please return by 22nd May 1999

APPENDIX J: WORKSHOP SPONSORS

The International Confederation of Midwives wishes to acknowledge with gratitude the generous sponsorship of the following organizations, without which the workshop would not have been possible:

Janssen Cilag

Johnson and Johnson

Ministerie van Buitenlandse Zaken - the Netherlands

UBS AG

UNFPA

UNICEF

World Bank

World Health Organization

APPENDIX K: REFERENCE LIST

ICM/WHO/UNICEF (1987) Women's health and the midwife - a global perspective: Report of a collaborative pre-Congress workshop, The Hague, Netherlands, 21-22 Aug 1987. WHO/MCH/87.5.

ICM/WHO/UNICEF (1990) Midwifery Education - Action for Safe Motherhood: Report of a pre-Congress Workshop, Kobe, Japan, 5-6 Oct 1990. WHO/MCH/91.3.

ICM/WHO/UNICEF (1994) Midwifery Practice: Measuring. Developing and Mobilising Quality Care: Report of a collaborative pre-Congress Workshop, Vancouver, Canada, 7-8 May 1993. WHO/FHE/MSM/94.12.

ICM/WHO/UNICEF (1997) Strengthening Midwifery within Safe Motherhood: Report of a collaborative pre-Congress workshop, Oslo, Norway, 23-26 May 1996. WHO/RHT/MSM/97.3.

WHO (1996) Midwifery Education for Safe Motherhood: Education materials for teachers of midwifery. Modules 1-5. Geneva: WHO/FRH/MSM/96.1-5.