Final Version, 15 October 2001

KAROLINSKA INSTITUTET
Division of International Health (IHCAR)

Paper for the conference "Expanding Access; Advancing the Roles of Midlevel Providers in Menstrual Regulation and Elective Abortion Care" South Africa 2 – 6 December 2001.

Midwives' role in management of medical abortion

Swedish Country Report

Ing-Marie Jonsson
Catharina Zätterström
Kajsa Sundström

Table of contents

1. Country profile on abortion services

Sweden has a population of 8,86 million people, 83 percent living in urban and 17 percent in rural areas. Nearly half of the urban population is concentrated in and around a few large cities. People living in middle-sized or small urban localities or in rural areas are spread sparsely throughout the country, resulting in an average population density of 56 people per square mile (1).

Life expectancy at birth (in 1999) is 82 years for women, 77 for men. Total fertility rate has fluctuated with periods of just over 2 children per women followed by fall to 1.5. The annual number of births has varied from 90 to 120 thousand in the past two decades (2). The mortality has been more stable, between 92,000 and 95,000 annual deaths in the 1990s (1).

Swedish Gross Domestic Product (GDP) is $24,730 per capita (1). Public responsibility for social and health services for the entire population on equal conditions has been a long-standing priority in Sweden. The county councils are responsible for financing and operating health and medical care, levying taxes for the required resources. Health insurance coverage is universal and people across all income levels use public health services. Reproductive health services, including antenatal care, contraceptive services, pre- and post-abortion counseling, and STD-prevention, are provided at public health centers at primary level. Delivery care and surgical or medical management of abortion are provided at maternity hospitals and out-patient gynecological clinics.

1.1 Laws and policies

According to the Swedish 1974 abortion Act, a woman requiring abortion is entitled to have it performed by the public health service until the end of the 18th week of pregnancy. After that abortion is allowed only after application and approval of the National Board of Health and Welfare and only for special reasons. These are fetal injuries or serious maternal physical and mental health problems. The ability of the fetus to survive outside of the womb constitutes the upper limit for abortions. According to current practice elective abortions are not approved after the 22nd week of pregnancy (3).

The law subscribes that abortions have to be performed at general hospitals by a qualified medical doctor. According to the law only Swedish citizens or women living permanently in Sweden are eligible. The National Board of Health and Welfare issues Guide lines for abortion policies and practices (4). They include where and by whom abortion can be performed, pre- and post-abortion care, what line to take towards foreign women and minors, the service providers' attitude, and management of second trimester abortion.

Attitudes and perception of abortion
There is in the Swedish society a notably open attitude to sexual matters. Sexuality, personal relationships, contraceptives and abortion are regularly discussed in radio and television programs as well as in newspapers, magazines and books.

Sex education has been compulsory in Swedish schools since 1955 and all children and adolescents receive sex education in school. The education includes facts about contraception, abortions, STD and information on where to obtain services. However, focus is on sexuality, interpersonal relations and gender equality.

Today the 1974 Abortion Act about abortion on request is well known and generally supported in the population. All political parties stand by the current legislation. Small groups, inspired as a rule by similar movements in the United States, represent opponents to abortion and free choice (5).

1.2 Reproductive health and abortion statistics

In the 1990s the annual number of births in Sweden has decreased from 123,000 in the first years of the decade to about 90.000 in the last. The total fertility rate has declined continuously from 2.1 in 1991 to 1.5 in 1999, the lowest figure ever noticed.

Maternal mortality, since the 1970s, has been less than 5 per 100,000 live births. In 1997, when the number of birth was 91,000, three women died in connection with pregnancy and childbirth. Also child mortality is very low. Perinatal mortality has decreased from just under 10 per thousand in the 1970s to about 5 per thousand in the 1990s. Infant mortality (deaths of children under one year of age) is 4 infants per thousand (2).

Abortion
The annual number of abortions has varied between 30 000 and 38 000 since the mid 1970s, which is a variation in rate between 18.1 and 21.5 per 1000 women age 15-44. Through the years, roughly every fourth pregnancy is terminated by an abortion. Since the early 1970s there are virtually no illegal abortions in Sweden.

In 1999 the number of induced abortion was 30,700 and the abortion rate 18.1. The number of abortions per 100 pregnancies was 25.8. Distribution by age see table 1. (6)

Table 1. Number of abortions and abortion rate by age, Sweden 1999

Age	number of abortions	abortion/1,000 women, 15 - 44
– 19	4,673	19,0
20 – 24	6,788	26.6
25 – 29	6,573	22.5
30 – 34	6,393	20.4
35 – 39	4,438	14.9
40 –	1,847	6.4
15 – 44	30,712	18.1

Most induced abortions, 93 percent, are first trimester abortions, performed within the first 12 weeks of gestation. About six percent of abortions are between 13 and 18 weeks and less than one percent after the 18th week of pregnancy.

Of first trimester abortions in 1999, 36 percent were pharmacologically induced, the rest performed by vacuum aspiration. The methods used after 12 weeks of gestation, are dilatation and evacuation either by vacuum aspiration (in 40 percent) or induction with prostaglandin followed by curettage with blunt instruments.

1.3 Provider profile

Historical background
In Sweden midwives have by tradition conducted the healthy woman's delivery and pre- and postpartum care. Education for midwives started in the 16th century. As a solution for the high mortality in relation to childbirth, the Swedish Parliament, in 1751, decided that each parish should have a trained midwife to assist women in childbirth. This mark the beginning of the midwifery system, but it should take more than hundred years before there was a midwife in every commune, ready to attend women at home deliveries. In the mid-nineteenth century, maternal mortality rate was as high as in many developing countries today. A common cause of maternal death was complications from abortions. Improved obstetric care in rural areas

led to a steady decrease in childbirth related mortality from the mid-nineteenth century on. However, there was an increase in mortality from illegal abortions, lasting into the first half of the twentieth century (7).

In the last fifty years the health of the mother and the newborn has improved dramatically. Maternal mortality decreased from about 350/100,000 live birth in the 1930s to less than five annually a few decades later. General education, better health in the population, improved obstetric care and maternal and child health care for all are behind this development. A shift to hospital deliveries took place in the 1950s and ever since, virtually all mothers are delivering at hospitals, attended by midwives. Not until the 1970s, however, with the liberalization of the abortion law the final reduction in maternal mortality and morbidity occurred (8).

Providers of reproductive health services
The main caregivers of reproductive health services are physicians, specialized in obstetrics and gynecology and registered nurse/midwives. The professional training to become an ob-gyn specialist includes five years and a half in medical school and 18 months of practical, clinical training (internship), followed by five year postgraduate training in obstetrics and gynecology. Training in provision of abortion care services is part of the postgraduate program.

The current education for midwives was introduced in the 1960s. All midwives go through a three years education to become a qualified nurse. Thereafter they have to work as a nurse for at least six months before being allowed to apply to the school of midwifery. The education to become a midwife takes additionally 18 months (9).

Table 1.3 Providers of abortion services

Type of provider	Total years of pre-professional education	Duration of professional medical training	Duration of pre-service training in abortion service delivery		Duration of in-service training in abortion	Duration of apprenticeship / on the job training
			Training in clinical abortion procedures	Training in abortion counseling	Training in abortion counseling and clinical abortion procedures	Training in abortion counseling and clinical abortion procedures
physi-cian	12	7 years + 5 years ob/gyn training	Inte-grated	–	Integrated in general ob/gyn training	Integrated in post-specialist on the job training
mid-wife	12	5 years	none	2 weeks	2 weeks	2 weeks

Midwives working in primary health care and at maternity hospitals are responsible for a wide range of reproductive health services, including antenatal and postpartum care, contraceptive services, abortion counseling, and hospital deliveries. In all these activities midwives are working independently with a specialist in ob/gyn as consultant. Usually the specialist visits the ante-natal center a couple of hours a week for supervision, staff meetings and consultations with patients in need of special attention or treatment. Likewise midwives at maternity hospitals attend normal deliveries, while the obstetricians take care of complicated cases, and procedures such as epidural anesthesia and Caesarian sections (10).

In Sweden there are 1,216 specialists in obstetrics and gynaecology, 51 percent of them are women. In the whole country there are 55 hospitals with maternity wards and departments of gynecology and obstetrics. At these clinics quite a few specialists and a number of gynecologists under training are working (11).

In the country there are 6,400 midwives, working professionally. Of them 75 percent are working with reproductive health services either with delivery care in hospitals or providing antenatal and care and contraceptive services at primary health centers. The remaining 25 percent, about 1,600 midwives, are working as nurses either in other specialties, or in post partum and gynecological wards.

Abortion care
According to the law only physicians are allowed to perform abortion. It is required that abortions are provided by a specialist in gynecology or a doctor under training to become a gynecologist/obstetrician. Surgical procedures, mainly vacuum-aspiration used to be the method for elective abortion. Registered nurses or nurse-midwives are assisting the doctor in the care of elective surgical abortion, like in treatment of complications or evacuation of incomplete abortion. When pharmacologically induced abortion was introduced in 1992, this method was also provided by ob/gyn specialists. Eventually, midwives have been engaged in management of medical abortions, providing services on doctors' delegation. This will be further developed in Section 2.

Professional associations
All physicians are organized in the Swedish Medical Association. It's not compulsory to be a member but since the security insurance system only is available to members, all doctors are. Most midwives are members of the Nursing Union as well as the Association for Midwives, even though it's not compulsory.

1. 4 Organization of abortion care

Primary health services are accessible all over the country. Access to services for e.g. contraception or abortion is unrestricted in terms of age or marital status. Services are free of charges and confidentiality is ensured. Women in all ages can turn to the local health center for pregnancy test, abortion counseling and contraceptive services.

The law statues that the abortion should be performed in a public hospital or another establishment for medical services approved by the National Board of Health and Welfare. All services are supervised by the National Board of Health and Welfare regarding supply, equipment, methods, record keeping, rates of complications etc. (4).

Surgical and pharmaceutical management of induced abortion are provided at the out-patient department of public hospitals. Less than five percent are in private clinics, primarily in larger cities. Both private and public care is covered by the general health insurance and the county councils set the fees for consultation and treatment. The patient fee for out patient abortion care varies between SEK 60 and 270 (US$ 6-30), the highest in private practice.

Table 1.4 a Organization of abortion care

Level of Health Care System	Provider types	Type of services/ bortion methods provided	Maximum gestation for abortion	Management of complications		Monetary cost of specific services provided	
				Treatment	Referral	To individual (specify amount)	To health care system (specify amount if data available)
Community	district nurse	Information and referral			x	0	

Primary	ob-gyns, GPs midwives	Information, Counseling			x	0	
District/First Referral	ob-gyns midwives	VA, medical abortion	22 weeks	x		$ 6 - 30	n.a.
Secondary and Tertiary	ob-gyn specialists	VA, second trimester ab	22 weeks	x		$ 6 - 30	n.a.

Record keeping, health statistics
Record keeping has to be done on every person given health service according to Swedish law. The record has to be kept in the hospital and is classified as confidential. Health statistics are conducted by a central authority, Official Statistics Sweden, and are considered as highly reliable.

All abortions are reported to the National Board of Health and Welfare, Center of Epidemiology. From this unit, the national figures are reported annually and published as part of Official Statistics Sweden (6). The information reported to the National Board includes age, parity and home county of the woman. Type of procedure and gestational age are reported. Whether it is out-patient or hospital care is recorded and so is the name of the hospital/clinic, but not the name of the provider (Table 1.4 b). Apart from some few reporting errors, the general abortion statistics, according to validation tests, show only marginal inaccuracies (6).

Table 1.4 b Availability of abortion service delivery records

Level of Health Care System/ Type of provider	Number of qualified abortion providers	Number of abortions provided				Number of complications	Monetary cost of specific services provided	
		Total	By type of provider	By method	By gestation		To individual	To health care system
Ob-gyn specialist	yes	yes	yes	yes	yes	no	no	no
Nurse-Midwives	no	no	no	no	no	no	no	no
District/First Referral	yes	yes	yes	no	yes	yes	yes	no
Secondary and Tertiary	yes	yes	yes	no	yes	yes	yes	no

1.5 Knowledge and perception of abortion services
It is well known where to go for reproductive health services including abortion counseling and care. All medical staff is under the law of confidentiality, and is not allowed to say anything that can reveal a patient's identity.

Youth clinics
Young people can also find reproductive health services including abortion counseling at youth clinics. About 200 youth clinics are located in primary health over the country, offering various types of counseling and health services. The youth clinics are staffed by midwives, social workers and doctors and mainly situated in main cities and towns, while there are very few in less urbanized or rural areas. Where available, the youth clinics are the most popular sites for young girls and boys to go for advice or services on contraceptives and STD. In areas without special clinics, youth friendly services are provided as part of the regular maternal health services in primary health care.

The age of consent for sexual intercourse is 15 years. However, if a girl under 15 ask for contraceptive or abortion services, the midwife is not allowed to tell her parents. All minors (under the age of 18) who seek for abortion are referred to a social worker for support. They are recommended to talk to their parents, or in case this is not feasible, to contact and seek support from a relative or an adult they trust. If the minor has serious social problems, the social worker is obliged to refer the girl to the social services.

2. Midwives' role in abortion services

2.1 Midwives in Sweden – duties and qualifications

History of midwives' role in abortion care
By tradition midwives in Sweden are responsible for the healthy woman's care during pregnancy, delivery and post-partum period. All midwives educated since the late 1960s are qualified nurses with an additional 18 months training in obstetrics and gynecology.

In the 1970s the midwife got a new task. To make contraceptives easily accessible, midwives, working in antenatal care where trained to provide contraceptive services. Soon, these services were expanded and part of maternal health services throughout the country. In addition a number of youth clinics where opened where midwives gave information and counseling on contraceptives for young people. Eventually training in counseling and contraceptive services was included in the basic training for midwives (7). After additional 30-hours in service training supervised by a midwife with at least two years experience in contraceptive counseling, midwives are entitled to provide services on all contraceptive services, including prescription of the pill and insertion of IUD.

This was start of the process to place the main responsibility for contraceptive services by midwives within the primary health services. Today midwives in primary health services including youth clinics account for 80 percent of contraceptive services.

Apart from basic services during pregnancy and post partum-period midwives in primary care provide health education and preparation for childbirth in group-sessions with expectant mothers and fathers. In the 1980s midwives at youth clinics and health centers became involved in the prevention of STD, including hiv/aids. They offer testing, treatment and counseling, including partner tracing and notification, which is part of the national surveillance program for STDs such as gonorrhea, syphilis, chlamydia and hiv/aids (9). Currently about 4,800 registered nurse midwives with 4.5 years training are working professionally in the country, either in primary health care or in maternity hospitals.

Although midwives are responsible for and the main care givers of reproductive health services including contraceptive services and pre-abortion counseling it was not until lately they became more actively involved in post abortion and elective abortion care. First trimester medical abortion is the only type of induced abortion services provided by midwives in Sweden.

2.2 Medical abortion in Sweden

First trimester pharmacologically induced abortion has been available in Sweden since 1992 when the antiprogesteron drug mifeprostone was registered and approved for use in medical practice. In combination with prostaglandine, gemeprost or misopristol, it offered a method for elective abortion within the first 9 weeks of pregnancy (12, 13). The drugs are to be prescribed by a medical doctor and to start with physicians provided the services including counseling, monitoring and follow-up. The management also included assistance from social workers, nurses and/or midwives.

Midwives as providers of medical abortion
When the number of medical abortions increased, midwives took over some of the duties from the doctors in terms of counseling and care of the woman during the procedure. In some areas they gave the information about available methods or were delegated the right to administer the drugs to women who choose pharmaceutical abortion. Programs for management of medical abortion were developed and in most areas the care has gradually been converted from doctors to mid-level providers. Midwives providing elective abortion services must have a doctor's delegation, though.

Table 2.4 Public sector abortion care. Midwives scope of practice

Type of procedure		Offered by midwives (Y/N)? If "yes" specify method.	Method(s) of pain management used	Type of supervision required when performing the procedure	
				On-site	Remote
MR		no			
Medical abortion (specify different regimens used)		Yes: Mifepristone + prostaglandin	yeas, inj.+tablets against pain and nauses	ob-gyn specialist (delegation required)	ob-gyn specialist (delegation required)
1st trimester surgical		no			
2nd trimester surgical		no			
Emergency treatment of abortion complication	Stabilization	no			
	Uterine evacuation	no			
Management of spontaneous abortion	Stabilization	no			
	Uterine evacuation	no			
Postabortion contraception	Counseling on contraception	yes		no	ob-gyn specialist
	Contraceptive services	yes			

Post-abortion care, including pelvic examination and contraceptive counseling, can be given by a doctor or a midwife provided she is qualified and have worked independently with contraceptive services. Before a midwife with these qualifications is allowed to provide post abortion care, she must go through two weeks in-service training, supervised by an experienced midwife or in rare cases a gynecologist.

Qualified for conducting medical abortions are midwives who already have worked with contraceptive services and/or post abortion care and thereafter have got two weeks on-the-job guidance by an experienced midwife. Midwives who work with medical abortions or post abortion care are mostly posted at gynecological out-patient clinics. Of about 5,000 midwives in maternal health or delivery care, an estimated number of between 200 and 300 midwives are today providing medical abortion and/or post abortion care.

The setting
The usual setting is the out-patient and day-care unit at the gynecological department at public hospitals, staffed by gynecologists, nurses, midwives, and social workers. In addition to assisting the doctors at gynecological consultations, the midwives have their own hours for providing counseling and services according to their qualifications, mainly contraceptive services, post abortion counseling and elective abortion care.

There are, primarily in metropolitan areas, special units for prevention and health promotion on sexuality and birth control, staffed by gynecologists, venerologists midwives, social workers, nursing and secretarial staff. The aim is to provide integrated services education and communication on sexuality and reproduction to reduce the number of STD and of unwanted pregnancies leading to abortion. In some of these sites, e.g. SESAM at the Karolinska Hospital, Stockholm, midwives provide counseling and care for elective medical abortion.

Frequency of medical abortions
In 1998 about one third of first trimester abortions were pharmacologically induced. The proportion varies considerably in the country. From about 60 percent in some hospitals to less than 20 percent in others. These variations are mainly due to different policy at the gynecological departments (14). It depends on the interest of the head of department, the attitudes and resistance among the staff to change routines or to try new methods and also the capacity and resources in terms of trained personnel, hospital beds and surgical equipment and localities.

Economy
The cost for a surgical procedure including surgical theater, equipment, drugs, anesthesia, time for consultations, post-abortion counseling is estimated to be somewhat higher than medical abortion, including drugs for abortion, pain relief, and provider's salaries. In a Stockholm clinic, a woman from abroad who has to pay full price , is charged SEK 6,000 (US$ 600) whereas vacuum aspiration costs about SEK 7,000 ($ 700).

In a given setting, however, it can be more or less cost-effective to change from one method to the other depending on the existing capacity, dimension of hospital beds or trained personnel, leading to under-utilization of resources or demand for additional training.

2.3 Medical abortion by midwives - service delivery
Most women suspecting a pregnancy want to have it verified by a pregnancy test. Approximately 50% of them turn to an antenatal clinic or youth clinic for pregnancy test. They are attended by a midwife who will tell the woman personally about the result. If the woman consider an abortion the midwife refers her to the hospital for counseling and abortion care. Pregnancy tests can also be bought over the counter in a pharmacy. The test kit includes information on where to go for antenatal as well as abortion services. Private doctors, school nurses, GP, emergency wards etc can also refer women to abortion counseling and services.

The procedure
A woman who considers an abortion turns for an appointment to the gynecological out patient clinic of the nearest hospital.

She will be examined by a doctor, who estimate the length of the pregnancy by ultra-sound. If she is within the first nine weeks of a pregnancy (78 percent of all women seeking abortion) she can choose between vacuum aspiration under local or general anesthesia and pharmaceutical abortion. She is also offered a contact with a social worker if she so wish. Those who choose a medical abortion are given information about the procedure and a time for the first visit a few days later.

The routines may differ but in principle the woman after the first consultation is attended during the process by midlevel providers, either social workers or nurse/midwives. In about half of the clinics in the country the woman will meet a social worker at the first visit, in the rest she will be attended by a midwife or a

nurse. They will inform her about the procedure, administer a dose of 600 mg mifepristone (prescribed by the doctor) to be taken orally, and make an appointment for next visit two days later.

At next occasion the woman is invited to the day-care ward. She is given a bed and (as a rule) her partner or someone else she wants as a company is allowed to join her. She will stay at the ward for four to six hours, attended by the midwife for information support and pain relief. The prostaglandin (Gemeprost or Misoprostol) is administered vaginally to stimulate uterine contractions. This starts the labor followed by abortion, a process similar to a miscarriage. The women is given tablets or injections against pain and also anti emetics. In about 70% the abortion is complete within the four hours at the hospital, or it will follow soon after. A moderate bleeding may continue about two weeks.

A follow-up visit is scheduled after three to four weeks to make sure that the abortion is complete. This post-abortion visit is either to the same midwife at the clinic or to the primary health midwife, the latter usually in areas outside the big cities with less public communications. At this visit a pregnancy test is taken, the midwife checks the size of uterus and provides contraceptive services, e.g. prescribes pill or inserts an IUD.

2.4 Complications and outcome

The over all complication rate of abortion procedures is about 5 percent, including infections, bleedings, incomplete evacuation and perforations. The mortality rate in relation to elective abortion is zero. The complication rate is the same for medical as for surgical abortion. Both methods are seen as equally safe and effective (14).

Medical abortion is accompanied with pain and nausea, that have to be relieved by drugs or injections. According to a small Swedish study (15), about one third of the women had no or only slight pain, 40 percent had moderate pain and the rest severe pain. 98 percent said that the pain relief they got had been effective.

Conducting a medical abortion is a team work where many categories of health workers are involved, including midwives, nurses, social workers and doctors, the latter mainly as consultants or supervisors. Therefore studies about complication rates in relation to providers have no relevance in Sweden.

A number of studies in recent years have compared early elective abortions by vacuum exaereses with mifepristone-misoprostol induced abortions and found them equally medically safe (12, 16, 17). Clinical regimes and midwives´role as providers are also discussed (18, 19). The significance of side-effects such as pain or prolonged bleeding or draw-backs such as higher cost or more travelling for follow-up and consultations have to be investigated in different contexts. (20, 21, 22, 23).

Women’s perceptions and preferences must also be investigated. A study from Sweden (24) explored three groups of women who had chosen different methods for early abortion. The majority of women were content with the particular method they had chosen. More important than the type of procedure or the side effects in terms of pain and bleeding was the possibility to choose, to be treated without delay, and to be addressed with compassion and respect by the service providers.

2.5 Incentives and barriers

Laws and regulations
One obstacle has been Swedish legislation from 1974, stating that only medical doctors are entitled to perform abortions. This applies also for medical abortions and midwives are not allowed to prescribe the drugs, but to administer them on a doctor’s delegation.

Resistance from physicians
To change the pharmaceutical ordinance and convert specific doctor's assignments to midwives usually meet opposition from the medical profession through the Swedish Medical Association. When midwives got the right to prescribe contraceptive pills in the 1970-s they met resistance from most of the medical

specialties. The exception was the gynecologists and obstetricians, who knew the midwives capacity and had seen then provide services. In other situations, however, even the gynecologists have been reluctant to midwives taking over tasks such as screening for ovarian cancer or determining the gestational age by ultrasound. Very often it is related to the doctors' working situation. Shortness of doctors is a main reason for allowing mid-levels to take over, while in times with less working opportunities or even threat of unemployment, the Medical Association becomes more restrictive.

It should be mentioned that since abortion care is part of public health, there is no economic advantage for doctors to keep these services for themselves. Today midwives are not allowed to run private practice for contraception or abortion care. If the professional organization for midwives is able to negotiate these regulations, it may change the situation. The doctors who have delegated abortion care to midwives in public health may not be willing to compete with them in private practice.

3. Lessons learned

In Sweden it has taken nearly ten years to take on board mifepristone/misoprostol induction as an alternative to surgical procedure for early abortions, and to trust mid-level providers to gradually take on some of the management of elective abortion care from the physicians.

The conditions were favorable in that well educated and trained midwives since long had been the main provider of reproductive health care, including ante-natal care, contraceptive services and pre and post abortion counseling. Midwives in these capacities are respected by the public. They are used to work independently and there has been a good working climate between doctors and midwives.

Quality of care

Abortion services offered by midwives have been of high quality and have been well received by women. Midwives are trusted by women, they are willing to listen and easy to reach in case of complications.

Information/education to the public on where to find services

Midwives have since long been involved in IEC (information, education, communication) to prevent unwanted pregnancy and spread of STD. Adolescents have been a target group for these activities and at youth clinics they have received counseling and services from midwives. Women above the age of 24 are more difficult to reach concerning new contraceptive and abortion methods, especially women from ethnic minorities. Midwives can reach these groups and give information on available methods and where to find services.

Midwives provide information on abortion and offer the methods according to woman's own choice and motivation. When medical abortion was introduced in 1992 there were some hesitation about offering young women this method, because the pain and bleeding might be frightening for them. However when given adequate information before and friendly care during the procedure many young women choose and prefer this method. They appreciate being present and active in the process.

Working conditions, salary

In recent years quite a few midwives have taken on to work with medical abortion and post abortion care. It is often a deliberate choice. It is an independent work, demanding but also rewarding. It implies working daytime only which is highly appreciated among midwives who have perhaps worked for many years in obstetric care. Midwives working daytime only have a schedule of 40h/week, those working with delivery care 38,25 h/week. The salary varies between US$ 1.800 a month up to US$ 2.100 a month.

4. Conclusion

Based on the above lessons learned in Sweden where midwives are providing medical abortion care, we want to raise the following issues.

Medical abortion is a safe, simple and inexpensive technology for safe abortion that can be provided at primary level in the health care system by adequately trained mid-level health workers, offering confidentiality and respectful treatment.

Access to safe abortion is a reproductive right for women. Involving midwives in abortion counseling and care is a way to enable women to exercise this right and secure easy access and quality of care.
Our long-term goal is to see this technology developed into a women-administered procedure.

References

1. Official Statistics Sweden, SCB. *Statistical Yearbook of Sweden. 2001.* Statistics Sweden 2001 (in Swedish)

2. Official Statistic Sweden, SCB. *Women and men in Sweden; Facts and Figures 2000.* Statistics Sweden, 2000.

3. Swedish Institue. *Family planning in Sweden.* Fact Sheets on Sweden, Svenska Institutet June 1997

4. National Board of Health and Welfare, SoS. *Allmänna råd om tillämpningen av abortlagen.* SoSFS 1989:6 .(In Swedish).

5. Sundström K, *Birth Control, - contraception and abortion,* In: Sundström K, ed., *What do others do? Sexuality and interpersonal relationships in the 1990s.* Stockholm: National Institute for Public Health, 2001, pp. 114-122

6. Official Statistics Sweden, *Abortion 1999,* National Board of Health and Welfare, Statistics – Health and Diseases, 2000:6

7. Sundström K, *Reproductive health from an individual and a global perspective,* In: Ostlin P et al, eds., *Gender Inequalities in Health: A Swedish Perspective.* Cambridge, MA: Harvard University Press, 2001, pp 67-97

8. Högberg U. *Maternal mortlity in Sweden.* Umeå, Umeå University Medical Dissertations. New Series No 156, 1985.

9. Faxelid E et al. (eds), *Läkarbok för barnmorskor,* Chapter 1 – 3, Lund, Studentlitteratur 2001 (in Swedish)

10. Ransjö Arvidson A-B, *Childbirth Care in Affluence and Poverty. Maternity care routines in Sweden and Zambia. Dissertation,* Stockholm, Karolinska Institute, 1998

11. Swedish Medical Association. *Läkarfakta 2001.* Stockholm, Sveriges Läkarförbund, 2001 (in Swedish).

12. Cabezas E. *Medical versus surgical abortion.* Int J Gynaecol Obstet 1998; 63 Suppl 1:S141-146.

13. Creinin MD. *Medical abortion regimens: historical context and overview.* Am J Obstet Gynecol 2000;183:S3-9.

14. Löfgren M, Eriksson L, Ildgruben A, Damber M-G. *Medicinsk abort lika bra som kirurgisk.* Läkartidningen 1997; 94: 3257-60. (In Swedish)

15. Arnesson A-M. *Mifegyne-abort – 62 kvinnors upplevelser. En studie gjord på Ljungby lasarett,* Landstinget Kronoberg, 1995. (In Swedish)

16. Winikoff B, Ellertson C, Elul B, Sivin I. *Acceptability and feasibility of early pregnancy termination by mifepristone-misoprostol. Results of a large multicenter trial in the United States.* Mifepristone Clinical Trials Group. Archives of Family Medicine 1998;**7**:360-6.

17. Elul B, Ellertson C, Winikoff B, Coyaji K. *Side effects of mifepristone-misoprostol abortion versus surgical abortion. Data from a trial in China, Cuba, and India*. Contraception 1999;59:107-14.

18. Newhall EP, Winikoff B. *Abortion with mifepristone and misoprostol: regimens, efficacy, acceptability and future directions.* Am J Obstet Gynecol 2000;183:S44-53.

19. Narrigan D. *Early abortion. Update and implications for midwifery practice.* J Nurse Midwifery 1998;43:492-501

20. Winikoff B, Sivin I, Coyaji KJ, Cabezas E, Xiao B, Gu S, et al. *Safety, efficacy, and acceptability of medical abortion in China, Cuba, and India: a comparative trial of mifepristone-misoprostol versus surgical abortion.* Am J Obstet Gynecol 1997;176:431-7.

21. Harper C, Winikoff B, Ellertson C, Coyaji K. *Blood loss with mifepristone--misoprostol abortion: measures from a trial in China, Cuba and India*. Int J Gynaecol Obstet 1998;63:39-49.

22. Coyaji K. *Early medical abortion in India: three studies and their implications for abortion services.* J Am Med Wom Assoc 2000;55:191-4.

23. Wu S. *Medical abortion in China*. J Am Med Wom Assoc 2000;55:197-9 204.

24. Holmgren K. *Women's evaluation of three early abortion methods.* Acta Obstet Gynecol Scand 1992;71:616-23.