

## **USE OF CONTRACEPTIVES FOR FAMILY PLANNING**

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### **ABSTRACT**

*It is now well recognised that having pregnancies too early or too late in mother's life or too many in number or at too close intervals is harmful to the well being of the mother and the child. Unplanned and uncontrolled child birth brings other hardships to the family. Therefore, family welfare planning has to become a way of life. For promoting family planning two major approaches are to be made: (a) to create a favourable atmosphere that would be conducive to adoption of small family norm and would ensure ready acceptance and continued use of effective contraceptives; (b) to make available to prospective users a variety of suitable methods of contraception. For promoting contraceptive practice people have to be educated about the hazards of the unplanned family and the benefits of family planning and the ways and means of achieving it. People have to be educated about the physiological processes which regulate the reproductive functions in the male and female, and how these could be interfered with through the use of various contraceptives, and what are the advantages and disadvantages of various methods of contraception. The acceptance and continued use of contraceptives are influenced by a variety of factors. Some of these important aspects related to the use of modern contraceptives for family planning are incorporated in this presentation.*

*The information on various aspects of contraceptives and their use provided in this document will be valuable to all of those who are concerned with the promotion of contraceptive practice among the population through education, motivation and counselling.*

### **INTRODUCTION**

The need for checking uncontrolled population growth in the country has long been recognised at different levels and forums including that of political leaders and administrators. From the very beginning of the period of planned development in the country, family planning has been accepted as an official programme. Over the past three decades unprecedented infrastructure development has occurred throughout the country, and services are being provided through the health and family welfare services infrastructure. The contraceptive services include the provision of temporary methods like condom (Nirodh), intrauterine contraceptive devices

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(IUCDs), oral contraceptives and spermicides, and the terminal methods like vasectomy and tubectomy. Medical termination of pregnancy (MTP) has also been liberalised as a measure for protecting maternal health, and the pregnancies resulting from contraceptive failure can be terminated.

In the National Health Policy (1983), two major goals have been set - (a) achieving Health for All by the Year 2000 AD through primary health care approach, and (b) achieving a Net Reproduction Rate of Unity (NRR-1) by 2000 AD. In primary health care also family planning forms one of the major components. For achieving NRR-1 by the Year 2000 AD, at least 60 per cent of the eligible couples in the reproductive age group are to be effectively protected by contraceptive practice, and the crude birth rate (CBR) has to be brought down to 21 per 1000 population and crude death rate (CDR) to 9 per 1000 population and the infant mortality rate (IMR) to less than 60 per 1000 live births. Currently, about 35 per cent of eligible couples are being protected by contraception, and about 70 million births are estimated to have so far been prevented since the inception of the family planning programme. Although there has been a significant increase in the couple protection rate (CPR) since 1980, the birth rate has not registered a commensurate fall.

Since independence the country has made a very significant progress in various developmental sectors. In spite of all this, the fruits of development have not reached the common people, the poor and the downtrodden in a significant manner. The gains have been largely neutralized by uncontrolled growth of population. Presently, India's population is about 770 million, and about 15 million people are being added every year to our population. According to the World Bank estimates, our population will cross one billion mark by the end of this century. The socio-economic consequences of such growth of population can be well appreciated. Naturally, uncontrolled population growth has been considered as 'Number one' problem in the country and the family planning programme has been given a top most priority. People in all walks of life have to contribute to the success of this programme, which has to be made a people's movement. Leadership has to be developed at different levels and in different sections of the population, and they have to be oriented and sensitized to develop a sense of commitment for promoting this important cause. General apathy and lack of concern have to be replaced by enthusiastic support for achieving the goals set by the nation.

The poor and the common people have to be told in simple language regarding the hazards of unplanned family and the benefits of family planning. They will appreciate the importance and significance of family planning only when the above mentioned hazards and benefits are explained in terms of how these are going to affect the mother; the child and the family.

#### **HAZARDS OF UNPLANNED FAMILY**

1. It is a common experience that having pregnancies too early or too late in mother's life, or too many in number or at too close intervals is harmful to the well being of the mother as well as the child.

2. Studies carried out in different countries have shown that the optimal reproductive age of the mother for getting best possible pregnancy outcome is between twenties *i.e.* the age between 20 to 29 years. In mothers becoming pregnant below the age of 19 years, the rate of pregnancy wastage in the form of abortion, stillbirth and congenital abnormalities, as well as the maternal morbidity and mortality are high. The incidence of genetic and congenital defects is high among the offsprings born to the mothers aged 33 years and above.
3. If the pregnancies are too many in number or at too close intervals, the mother does not get enough time for replenishing the loss of nutrients etc. occurring during previous pregnancy and lactation. This causes severe physical and mental strain on the mothers. They are also exposed to greater chances of other hazards of pregnancy leading to increased morbidity and mortality.
4. In such situations, the children may not get adequate food, nutrition, clothing and parental attention, love and care, which would also have adverse psychological impact.
5. Nutritional depletion of mothers and children makes them vulnerable to infections, leading to increased chances of morbidity and mortality.
6. Unplanned and uncontrolled child birth in any family may also bring economic hardship which may hinder the education and up-bringing of the children and the development, growth and happiness in the family. This may also adversely affect the social status and self-respect of the family.
7. In an wider context, uncontrolled population growth also brings about undesirable social pressures in the form of scarcity of available resources, lack of employment opportunities, rising discontent, unrest and disharmony etc. These unfavourable conditions in turn affect the well being of the family and the individual.

#### **BENEFITS OF FAMILY PLANNING**

1. Effective family planning can reduce the risks of fetal death, birth defects, infant mortality, child mortality, and nutritional depletion for women and children.
2. The couple can have the following specific benefits:
  - a. they can have more relaxed sex relations without the fear of having unwanted or ill-timed pregnancy;
  - b. postponement of child birth may provide opportunities for completion of their education or vocational training and this freedom may make a significant difference in economic future of the entire family;
  - c. with a job security or sound economic base, the couples can increase its self-respect and satisfaction by being able to provide for their children the

desired type of education and home environment such as shelter, food, clothing, recreation etc. d. such couple may provide positive examples of responsible parenthood for their children to emulate.

The community or the society can have the following benefits:

- a. the health benefits to men, women and children can result in more productive labour force;
- b. the number of abortions arising from unplanned pregnancies can be reduced, thereby decreasing the proportion of hospital supplies and staff time used to treat women with incomplete and septic abortions.
- c. with controlled growth of population balanced with available resources, employment opportunities etc., there would be greater chances of harmony in the society

#### **WHAT IS DESIRABLE AND NEEDED**

In order to avoid the above mentioned adverse situation arising out of unplanned families and to get the benefits of family planning, we must ensure that: (a) each family becomes a planned one; (b) every child born be a desired one; and (c) the family size is limited with proper spacing or intervals between child births. With the advances in scientific knowledge and technology, it is now possible to prevent or postpone child birth deliberately. It is no longer appropriate to make any excuse that the children come at God's will and we have no part to play. If God gives us the children, He has also given us the intelligence and conscience to act rationally. Therefore, we need to develop the concept and attitude for responsible parenthood.

For promoting family planning two major approaches are to be made:

1. To create a favourable atmosphere that would promote adoption of small family norm and ensure ready acceptance and continued use of effective modern contraceptives.
2. To make available to the prospective users a variety of suitable methods of contraceptions.

#### **CURRENT SITUATION, PROBLEMS AND RELATED ISSUES IN INDIA**

For proper appreciation of the environment in which contraceptive acceptance and practice are to be promoted, consideration of some of the problems and relevant issues would be useful. These are highlighted below:

1. As mentioned earlier, the Couple Protection Rate (CPR) as reported from service statistics has increased from 22.7 per cent in 1980-81 to about 35 per cent in

1985-86. The birth rate which showed a declining trend since 1970 decreased from 40 per 1000 population in 1971 to about 34 in 1978. Thereafter, it has shown only a marginal decline to 32.7 per 1000 population in 1985. Obviously, there has not been a commensurate decrease in birth rate even following a very significant increase in the OPR. The reasons for this need to be found out.

2. From the available statistics, it is noted that over these years there has been an undue emphasis on terminal methods of contraception. Out of the current CPR of 35 per cent, only 8 percent had been covered by spacing methods like conventional contraceptives, IUDs, and oral pills, and the remaining couples had accepted the terminal methods. It is further noted that about 75 per cent of the acceptors of vasectomy and 82 per cent of the acceptors of tubectomy had already three or more living children. Obviously, the desired demographic gain may not be expected from such contraceptive programmes.

3. From an All India Survey conducted in 1983, a perusal of the acceptors' profile revealed that among the couples aged between 15-19 years, contraceptive prevalence rate (CPR) was only 5.7 per cent, between 19-24 years, it was 16 per cent and among the 25-29 years group 32 per cent. In this study, the overall CPR was 35.3 per cent, and about 63.5 per cent of these users accepted terminal methods.

4. It is evident from the above that there is substantial scope for increasing contraceptive prevalence rate in the age group of 15-25 years. However, it will be difficult to increase CPR in this group substantially through sterilization, because majority of them will have one or two children, or will be newly married couples. Obviously, the major emphasis for the couples below 25 years of age will be on spacing methods. Continued practice of spacing methods requires sustained motivation.

5. From a closer review of the contraceptive acceptors, it is apparent that due to over-emphasis on terminal methods in the current family planning programme, the most crucial group of couples who are either newly married or have only one child or two children are being largely neglected. Thereby, the opportunities for proper education and motivation for developing the attitude and urge for adopting a small family norm are missed.

6. Experience from some developing countries and the developed countries shows that spacing methods have played a very important role in bringing down the birth rate in the population. In Japan, about 80 per cent of the family planning acceptors use condoms, whereas more than 50 per cent of the acceptors in China use IUCD. It is estimated that more than 50 million women in the world are presently using oral pills. These experiences demonstrate the great potentiality of the spacing methods in controlling population growth.

7. In a recent study by the World Fertility Survey in 29 developing countries, it

has been noted that the infant mortality rate (IMR) was 2-1/2 times higher among the babies born in an interval of less than two years compared to those born after a gap of four years. Similar observations have also been made in a study carried out by the WHO on 6000 women in South India. Reduction in infant mortality through the use of spacing methods is likely to further promote family planning acceptance.

8. In a recent study carried out by World Bank in Kerala State, it has been found that about 20 per cent of the couples who had completed their families and not desiring any more children were not using any contraceptive. Similarly, in a study carried out by the Planning Commission, it was found that there was a large percentage of non-adopters among the eligible couples, inspite of the fact the family planning programme had been operating for more than three decades. The reasons for such undesirable situation are: (a) the couples are not being informed properly about the other options of non-terminal methods and the availability of back-up services of medical termination of pregnancy in case of contraceptive failures; and (b) the lack of enthusiasm of service providers for promoting spacing methods.

9. A study carried out in 1985 by the Market Research Companies on 32,000 respondents from different parts of the country, the following important observations were made:

- a. Awareness of family planning was quite widespread and more than 60 per cent of the respondents were favourable for limiting or spacing their child birth.
- b. The majority wanted to have three or more children, out of which two had to be sons.
- c. The customs and deep-rooted traditions determined the age at marriage, although with education there was favourable trend in increasing the age of marriage.
- d. Literacy was also associated with attitudinal change for accepting small family norm with one son.
- e. The accessibility to the institutions and the contraceptive services were better in the urban areas, although the slums needed greater attention. In rural areas, the accessibility to the institutions and/or to the services was very poor.
- f. The major inhibitions for family planning acceptance were the apathy and lack of concern for the health of the mother and the child, the religious beliefs and illiteracy.

For an overall comprehension, in the subsequent sections the physiological processes regulating reproductive functions in the male and female, the available methods of contraception, their merits and demerits, and the steps needed for effective implementation of contraceptive programme have been briefly described. This is intended to help the readers in the task of educating, motivating and counselling with the ultimate objective of promoting and accelerating the acceptance and practice of contraception. For detailed information on individual contraceptive methods they are to refer to other relevant documents.

## **REPRODUCTIVE PROCESS AND BASIS OF CONTRACEPTION**

For proper understanding of the basis of contraception, it is important to know the processes within the body which regulate the reproductive functions in the male and female, and how could these be deliberately interrupted.

### **Male Reproduction**

The two male sex glands, known as testis, are located within a sac like structure called scrotum. The testis has two major functions: (a) formation of male germ cells or spermatozoa; and (b) production of male sex hormone which stimulates and maintains male characteristics. The spermatozoa are produced within the convoluted tubules inside the testis. Sperm formation is initiated soon after the establishment of puberty and it occurs continuously until the advanced age. Thus, the fertility of the male is continuous and not cyclic like the female. From the testis the spermatozoa are transported through the convoluted tubules to the epididymis where they become mature, and acquire motility and the fertilizing capacity. The sperms are then stored in and transposed through a tube - like structure called the vas deferens; during ejaculation these are suspended in the seminal fluid, which are secreted by the accessory sex organs such as seminal vesicles, prostate and epididymis. In one ejaculate there may be 100 to 300 millions of spermatozoa.

The male sex hormone secreted by the testis is transported to different parts of the body through the blood stream; it stimulates and maintains the accessory sex organs including the phallus or penis, and libido or sex desire.

### **Female Reproduction**

The two female sex glands, known as ovaries, are located on two sides within the pelvic cavity situated in the lower part of the abdomen. Like the testis, the ovary also has two main functions: (a) formation of female germ cells called the ova or eggs and cyclic liberation of one of these; and (b) production of female sex hormones - estrogen and progesterone. The reproductive functions in the female show cyclic activity and the fertility in the female is cyclic, which is unlike that in the male. In normal women, usually 12 to 14 days prior to the onset of next menses one of the developed follicles in the ovary ruptures liberating one ovum or egg; the process is known as ovulation. The number of ova or eggs within the ovaries is fixed at the time of birth of a female child, and these get continuously depleted until the menopause when all the eggs are exhausted. Thus the female, unlike the male, remains fertile only upto a limited period of life span between puberty and menopause.

The female sex hormones give the female the physical characteristics including breast development and feminine distribution of fat. During reproductive life span, these hormones act on genital organs and prepare them optimally for various steps that may lead to successful conception. The lining of uterus of womb,

called endometrium, becomes a rich and nutritious bed in anticipation of a potential pregnancy. If the egg is fertilized by a spermatozoa and the fertilized egg become implanted or embeded into the endometrium a pregnancy develops. On the otherhand, if the egg is not fertilized by a spermatozoa or the fertilized egg is not implanted, then the hormones gradually stop preparing the women's body for pregnancy. In that case the nutritious lining of the womb breaks down and is sheded, and the menstrual bleeding starts. The day on which this bleeding starts is counted as the first day of the new menstrual cycle, which extends to the day prior to the onset of next menstrual bleeding.

After the ovulation the liberated ovum or egg is picked up by the fallopian tube. Its fertilizable life span is 6 to 24 hours in the human. During sexual act if the spermatozoa are deposited into the vagina near about the time of ovulation, they pass through the cervical mucus and the uterine cavity, and some of them reach the fallopian tube where one of them ultimately enters into the egg and fertilizes it to form a zygote. The fertilized egg or zygote then undergoes development and is moved towards the uterine cavity, where it reaches about four days after ovulation and forms a blastocyst.. On the 6th or 7th post-ovulatory day the embryo gets implanted or embeded in the endometrium (inner lining of the womb), which by now has been optimally prepared by the sex hormones, estrogen and progesterone. For onward maintenance of the conceptus and the pregnancy, high levels of estrogen and progesterone are necessary. In a normal menstrual cycle the corpus luteum which is formed by the cells of the ruptured follicle, regresses 12 to 14 day after ovulation. But in case of pregnancy, the regression of corpus luteum is prevented. During the first 6 or 8 weeks of pregnancy, estrogen and progesterone are supplied by the corpus luteum which is stimulated and maintained by the human chorionic gonadotrophin (hCG) secreted by the placenta, the mass of tissue making connection between the foetus and the mother's womb. Therefore, the hormone hCG is very vital for conceptus maintenance.

The anti-fertility measures or the use of contraceptives are intended to interfere with any one or more of the important events in reproductive processes in the male or female as mentioned above and also indicated in Table 1.

#### **AVAILABLE CONTRACEPTIVES**

##### **A. Temporary Methods**

###### ***Traditional Methods***

1. Coitus interruptus or male withdrawal
2. Condom
3. Vaginal diaphragm
4. Spermicides
  - a. Jelly, cream and paste
  - b. Foam tablets

**TABLE 1**  
**INTERFERENCE WITH REPRODUCTIVE PROCESSES BY CONTRACEPTIVE METHODS**

| Major Site(s)<br>Action                                                             | DIFFERENT CONTRACEPTIVE METHOD USED BY |                   |               |                |             |                |               |                                             |      |               |
|-------------------------------------------------------------------------------------|----------------------------------------|-------------------|---------------|----------------|-------------|----------------|---------------|---------------------------------------------|------|---------------|
|                                                                                     | MALE PARTNER                           |                   |               | FEMALE PARTNER |             |                |               |                                             |      |               |
|                                                                                     | Condom                                 | Coitus<br>Intrupt | Vasectom<br>y | Diaphram       | Spermicides | Safe<br>period | Oral<br>pills | Hormona<br>l<br>injections<br>&<br>Implants | IUCD | Tubectom<br>y |
| 1. Prevention of sperm deposition into female genital organ                         | YES                                    | YES               | YES           | -              | -           | -              | -             | -                                           | -    | -             |
| 2. Passage of sperm through cervical canal (mucus)                                  | -                                      | -                 | -             | YES            | YES         | -              | YES           | YES                                         | -    | -             |
| 3. Development and release of egg by the ovary (Ovulation)                          | -                                      | -                 | -             | -              | -           | -              | YES           | YES                                         | -    | -             |
| 4. Prevention of passage of egg through the tube after ovulation                    | -                                      | -                 | -             | -              | -           | -              | -             | -                                           | -    | YES           |
| 5. Prevention of union between sperm and ovum or egg                                | -                                      | -                 | -             | -              | -           | YES            | -             | -                                           | -    | -             |
| 6. Prevention of implantation of fertilised egg in the womb by altering endometrium | -                                      | -                 | -             | -              | -           | -              | YES           | YES                                         | YES  | -             |

- c. Aerosol foam
  - d. Suppositories
5. Safe period or rhythm method

### **Modern Methods**

- 6. Hormonal contraceptives
  - a. Oral pills
  - b. Parenteral hormonal contraceptives
- 7. Intrauterine Contraceptive Device (IUCD)

### **B. Permanent Methods**

Male and female surgical sterilization

#### **1. Coitus Interruptus**

In this method the male partner withdraws the phallus or male organ before the climax is reached and the ejaculate is deposited outside the vagina. It is probably the oldest contraceptive procedure known to men. It has been used quite extensively in some countries. High degree of motivation and perfect understanding between partners are necessary. With the use of this method the pregnancy rate is quite high, as some semen is often ejaculated with the vagina before withdrawal of the penis.

#### **Advantages**

- i. It requires no supplies.
- ii. No specific preparation is needed.
- iii. It costs nothing.

#### **Disadvantages**

- i. The failure rate is quite high.
- ii. It demands self control of the male.
- iii. Women may not get full sexual satisfaction; additional manual stimulation may be necessary for sexual satisfaction.
- iv. It has been reported that tension and neurotic complications may develop in some.
- v. Practice is limited and not advocated.

#### **2. Condom**

It is made of rubber and it is intended to cover the male organ so as to prevent the sperms getting into the vagina. To reduce the risk of bursting during use, it is important to leave half an inch or more at the end free and empty of air at the time of unrolling it on the erected male organ. Soon after the climax in male partner is over,

the male organ gets smaller and the condom becomes loose. It is very important that immediately after the climax; the male organ should be carefully withdrawn holding the condom securely so as to prevent any leakage from the sides. The effectiveness of this method is increased if used along with some contraceptive jelly or cream. It has been used very extensively throughout the world. In Japan, about 80 per cent of the couples practicing family planning have been using condom.

***Advantages***

- i. It provides protection against pregnancy as well as venereal diseases.
- ii. It is one of the most effective methods, if used properly, and it is widely used in all countries.
- iii. It can be made readily available and it is easily used in all situations, and it produces no side effects.
- iv. Finding intact condom after use is reassuring to the couple.

***Disadvantages***

- i. Foreplay before sexual act is interrupted temporarily.
- ii. It may interfere with sex enjoyment in some couples.

**3. Vaginal Diaphragm**

It is made of rubber and has a circular metal rim. It is used by women as a mechanical barrier for the sperms at the entrance to the cervix. Since it may not fit tightly enough to prevent completely the passage of sperms, it should be used with some chemical sperm-killing agent available in the form of jelly, cream or paste. It comes in different sizes and a suitable one should be initially fitted by a doctor or a trained para-medical person. Then the women may be taught how to use it.

***Advantages***

- i. It is a reliable method, particularly when used with other methods.
- ii. No side effects are usually noted.

***Disadvantages***

- i. Women needs physical examination and it should be initially fitted by a doctor or a trained health personnel.
- ii. Privacy is required for fitting.
- iii. Its effectiveness varies in different populations, it is not suitable for poorly motivated people.

**4. Spermicides**

These chemical agents are administered intra-vaginally as jellies, creams

foam tablets or suppositories with the object of killing and/or immobilizing the sperms thus preventing their entrance and passage through the cervix. Since these are relatively less effective these are usually used with other mechanical devices such as diaphragm or condom. These are introduced into the vagina 10 to 15 minutes prior to sexual intercourse.

#### ***Advantages***

- i. These are relatively simple to use; the foam tablets are more effective than others.
- ii. Pelvic examination is not needed.
- iii. These can be used by low socio-economic groups.

#### ***Disadvantages***

- i. When used alone, pregnancy rate is relatively high.
- ii. These may cause excessive lubrication and 'messiness'.
- iii. These require some waiting time.

### **5. Safe Period or Rhythm Method**

This is based on restricting sex act during the infertile period in the menstrual cycle, and avoiding the possible fertile period. The release of the egg usually occurs about 12 to 14 days prior to the onset of next menses, and the egg remains alive for less than 24 hours. The sperms, once deposited into the vagina, may remain alive in the female genital tract for about 2 to 4 days. Taking these facts into consideration calculation of safe period is made in each woman. In a regular menstrual cycle of normal length, usually 7 or 8 days prior to the expected date of menses and 7 or 4 days just after the stoppage of menses may be considered as safe period. However, this method alone has a very high failure rate; therefore, this should be practiced in combination with other methods such as condom.

#### ***Advantages***

- i. This is the only method accepted by Roman Catholics.
- ii. There are no side effects.

#### ***Disadvantages***

- i. When used alone, pregnancy rate is relatively high.
- ii. Opportunity for sex act is reduced.
- iii. This is not suited for women having irregular menses and for uneducated people.

### **6. Hormonal Contraceptives**

#### ***a. Oral Contraceptives***

Commonly used oral pills are various combinations of two types of female sex

hormones *i.e.* synthetic estrogen and progestogen. The pills are to be taken daily, preferably at bedtime in full stomach, in courses of 4 weeks duration - the last week of this regimen having non-hormonal tablets. For any new acceptor the pills are to be started from the fifth day of a menstrual cycle. Withdrawal bleeding occurs 3 to 4 days after the intake of the last hormonal pill taken for the first 21 days; that is, the bleeding occurs during the last week of the 28 day schedule. These oral pills act at multiple sites and suppress ovulation, interfere with sperm passage through the cervical mucus and make the endometrium unsuitable for implantation or embedding of the fertilized egg. It had been used very extensively in different parts of the world. It has been estimated that about 50 million women all over the world use oral contraceptives, out of which about seven million users have been in China.

For the success of the programme, proper selection of the acceptors of oral pills would be important. In the following conditions oral pills are not to be used: (a) cancer of the breast, cervix or uterus; (b) history of thrombo-embolic disorders; (c) liver disease or jaundice; (d) diabetes mellitus; and (e) undiagnosed vaginal bleeding. In another group of conditions stated below there is relative contraindication, and oral pills may be given only after considering the relative risks and benefits. These conditions are: (a) women aged over 35 years and particularly those who smoke; (b) visual disturbances; (c) epilepsy; (d) congestive heart failure; (f) severe allergic conditions; (f) gross malnutrition and vitamin deficiency states; (g) high blood pressure; (h) nursing mothers in the first six months; and (i) toxæmia of pregnancy. In the absence of any doctor, properly trained para-medical health personnel can do the selection, using a simplified check-list prepared for this purpose, and initiate the use of the oral pills; in that case the acceptors is advised to get examined by a doctor within three months. It may be mentioned here that in developed countries as well as in some developing countries oral pills can be obtained by normal healthy women from the drug stores or pharmacists with or without prescriptions.

### ***Advantages***

- i. If properly taken, it is almost 100 per cent effective and its effects are reversible.
- ii. Use is not related to sex act and does not interfere with sex relation. In fact, the couples enjoy a more relaxed sex life.
- iii. In addition, its use provide other health benefits. It corrects menstrual abnormalities such as irregular and excessive bleeding, premenstrual tension and painful menses; it improves general health and protects against pelvic inflammatory disease, ectopic pregnancy and its associated risks, and endometrial, ovarian and breast cancer.

### ***Disadvantages***

- i. It requires regular daily intake of pills, for which sustained motivation is essential.

- ii. Mild side effects such as nausea, malaise and headache may occur and many women may discontinue for this reason, if they are not properly counselled and reassured. These types of complaints are also noted in normal pregnancy, during which period also the blood levels of these two hormones - estrogen and progesterone, are high. In fact, the levels in pregnancy are much higher and these remain elevated for a prolonged period.
- iii. In American and British women, who were aged over 35 years and who smoked, somewhat higher risks of cardiovascular disorders were observed. Among the younger women incidences of these were very few. In the developing countries these risks appear to be still lower.

#### ***b. Parenteral Hormonal Contraceptives***

Long-acting injectables and implants containing contraceptive steroids are in advanced stages of clinical and field trials in the country, and these have not yet been introduced in the National Family Planning Programme. Since this subject has been dealt with in great details in an earlier publication (Roy, 1983), this has not been elaborated in this presentation.

### **7. Intrauterine Contraceptive Device (IUCD)**

Various plastic devices have been extensively used by the women in different countries and the pregnancy rate is very low. About 60 million women throughout the world have been currently using the IUCD, out of which about 40 million women are in China. In fact, about 50 per cent of women practicing family planning in China use IUCD. The device is introduced into the uterus by a doctor or a trained nurse and a periodical follow-up is done. In more than 50 per cent of women, there is no complaint whatsoever. In some, mild and transient side effects like abnormal uterine bleeding and pain in the abdomen or back may occur. But with continued use these disappear or become less with or without treatment. If, however, the side effects are moderate and prolonged some alternative contraceptive may be advised; oral pills may be given to such clients. IUCD prevents implantation of the fertilized egg into the endometrium, the inner lining of the womb.

As in the case of oral pills, for successful IUCD programme proper selection and counselling of the acceptors of IUCD would be very important. The device should not be used in the following conditions: (a) known or suspected pregnancy; (b) acute or chronic pelvic infection; (c) cervical or uterine cancer; (d) congenital uterine abnormality; (e) irregular or abnormal uterine bleeding; (f) severe cervical stenosis; (g) disorders of blood and coagulation defect; and (h) large fibroid distorting the uterine cavity. In a few other conditions listed below the relative risks and benefits are to be judged, before the use of IUCD. These conditions are: (a) nulliparity; (b) dysmenorrhea; (c) severe anaemia with haemoglobin less than 50 per cent; and (d) women on anti-coagulant therapy. Adequately trained para-medical health personnel can do a proper selection of the acceptor using a check-list, and also can

insert the IUCD. Proper psychological preparation of the women and timely counselling and assurance would go a long way in preventing drop-outs and ensuring continued practice.

***Advantages***

- i. It is suitable for large scale programmes.
- ii. It needs one time decision and action; therefore, very convenient to use.
- iii. It is not associated with and does not interfere with sex act.
- iv. It is economical and pregnancy rate is very low.

***Disadvantages***

- i. In some, side effects such as abnormal uterine bleeding, pain etc. may occur; these are mild and transient in most of the cases.
- ii. Many may discontinue because of side effects, unless properly educated, counselled and reassured.

**8. Surgical Sterilization**

In male sterilization or vasectomy and in female sterilization or tubectomy, the continuity of the ducts meant for the transport of the spermatozoa and the egg respectively is interrupted. These operations are carried out in those couples who need family limitation. Although these methods are considered as permanent methods, these operations can be reversed successfully in a proportion of cases. Using micro-surgical techniques success rates have increased considerably. Attempts for development of completely reversible methods for vasocclusion and tubal occlusion have not yet been successful.

***Advantages***

- i. These give maximum protection and the side effects are minimum.
- ii. These need no further action for contraceptive purpose.

***Disadvantages***

- i. The operation may not be reversed successfully in some cases, if and when needed. However, such a necessity arises very rarely, particularly when the children are properly immunized and adequately looked after, and the child survival rate is improved.

**RELATIVE EFFECTIVENESS OF CONTRACEPTIVES**

The effectiveness of various contraceptive methods is indirectly judged by the number of pregnancies or failures occurring in 100 women using the method for one year period. Theoretical effectiveness means that if a particular method is practiced

properly how much protection does it provide. Since the ability to practice contraception properly varies depending upon various factors such as the education, socio-cultural condition and the degree of motivation of the couple, the use-effectiveness of any method may vary from one country to another and from one population group to another. Thus, the use effectiveness may be less than the theoretical effectiveness. The relative effectiveness of various methods as calculated about two decades ago by Garcia is given in Table 2.

More recent surveys carried out in the United States have shown that oral pill is the most effective reversible means of preventing unwanted pregnancy. Compared to the oral pills, the 12-month failure rate with IUDs was two times greater, that with condoms three times, with diaphragm four times and-with other methods more than five times.

### **EFFECTIVE IMPLEMENTATION OF CONTRACEPTIVE PROGRAMME**

For successful implementation of the contraceptive programme, the various factors that influence the acceptance and continued use of contraceptives need to be seriously considered. The main factors include among others: (1) the intrinsic

**TABLE 2**  
**RELATIVE EFFECTIVENESS OF TEMPORARY**  
**METHODS OF CONTRACEPTIVE**

| <b>Method Outcome</b>             | <b>per 1000 Women Using</b>              | <b>for One Year</b>    |
|-----------------------------------|------------------------------------------|------------------------|
|                                   | <b>Average Pregnancy Rate or Failure</b> | <b>Protection Rate</b> |
| Foam tablets                      | 22.0                                     | 78.0                   |
| Jelly alone                       | 20.0                                     | 80.0                   |
| Coitus interruptus or withdrawal  | 16.0                                     | 84.0                   |
| Safe period                       | 14.4                                     | 85.6                   |
| Diaphragm                         | 12.0                                     | 88.0                   |
| Condom                            | 11.9                                     | 88.1                   |
| Intrauterine device (Lippes loop) | 5.0                                      | 95.0                   |
| Copper IUD                        | 1.0 or less                              | 99.0                   |
| Oral pills                        | 0.8                                      | 99.2                   |
| Depo Provera (DMPA)               | 0.7 or less                              | 99.3                   |

(Adapted from Garcia, G.R., Obstetrics and Gynaecology, 253:114 and 714, 1967)

character of the method; (2) individual and social acceptability; (3) service providers' knowledge, skill and attitude, and also their credibility within the community; (4) effective communication and motivation; (5) appropriate delivery system; and (6) the cost.

### **1. *Intrinsic Character of the Method***

The quality of a method in terms of the medical safety, effectiveness, side effects, ease in continuity of use and easy reversibility, does influence the acceptance and continued use of the method. The programme personnel and the health and family planning field staff should be well versed with these aspects for carrying out their functions properly in terms of educating, motivating, guiding, serving and counselling the prospective and current users.

### **2. Individual and Social Acceptability**

- a. These depend upon the socio-economic status; cultural values, perceptions and practices; number and sex of the living children; nature and type of contraceptive needs; accessibility and credibility of service giving agency; past experiences; mode of administration and frequency of use of the method; effectiveness, safety and side effects of the method; need for continued motivation; and the peer approval of the method.
- b. By establishing proper rapport with the community, a proper assessment of these aspects may be made. If necessary, a short diagnostic survey may be helpful. For example, one should find out why in some sections of the population there is low acceptance of family planning.
- c. For promoting acceptability, the leaders in the community may be contacted and be involved in the programme. The objectives and the benefits of the programme are to be explained and their cooperation solicited. If there are existing participatory organisations such as ViJlAge Health Committee, Mothers' Club and Youth Clubs etc., these may be involved. Elected representatives of the area may also be approached.
- d. Providing individual and/or group incentives, wherever appropriate may be thought of.
- e. Satisfied acceptors of family planning may be effectively utilized for promoting social and individual acceptability. It should, however, be remembered that satisfied users would not necessarily disseminate their positive experience, but the dissatisfied acceptors are more likely to spread their adverse reactions. Therefore, it is also very important to make all efforts to reduce the number of dissatisfied users and to take measures to satisfy them.

### **3. Providers' Knowledge, Skill, Attitude and Credibility**

- a. These aspects of service providers - whether they are medical officers or health and family planning field staff, play a very important role in the acceptance and continued use of contraceptives. From the field experience it

is often noted that the doctors and para-medical staff lack proper knowledge, skill and faith or confidence in particular methods. Under the circumstances they would not or could not educate and motivate the couples properly; neither could they allay the fears and doubts, and provide reassurance. This points out the great importance of educating, training and motivating the service providers.

- b. The goal of the field staff would be: (i) to supply necessary information for education and motivation; (ii) to assist the clients to evaluate contraceptive information and services, and to make an informed choice and decision about these; and (iii) to encourage them for continued practice. Use of appropriate visual aids helps the process of communication and other comprehension. They should explain the advantages and disadvantages of all the methods to the prospective clients, and leave the final choice of the method to the clients. If the decision on the choice of method is made by the user, and particularly by the husband and wife together, the possibility of their continuing with the method would be greater.
- c. While appraising the clients about the advantages of particular methods as well as the possible side effects, they should neither build unusually high expectations nor cause undue doubts, fear or apprehensions. They may emphasize that side effects do not occur in all individuals. Further, these are often mild and transient, and these may decrease or disappear with continued use. Nevertheless, they should reassure the clients that in case of any problem they would receive medical attention and care; in rare situations where the method is found to be not suitable for a particular individual, it would be withdrawn and an alternate method will be provided.
- d. The health and family planning workers should develop proper communication skills. While securing effective communication in family planning, they should assure and reassure the clients. They should also be able to recognize signs of various barriers and simultaneously avoid developing barriers. Similarly, they should also be alert to detect rumours and effectively counteract these.
- e. During their training, the health personnel not only must learn the theoretical and practical aspects of all the methods including their relative merits and demerits, the psychological support and follow-care needed by the acceptors, but they should also develop proper attitude and faith and commitment in the family planning programme.
- f. During the training period the field staff should be guided to develop talking points for education, motivation and follow-up of acceptors - both in the clinic and the field. They should be given a simple technical paper prepared in the form of questions and answers related to the use of contraceptives, to help them answer queries in the field.
- g. A practical way of preparing the above mentioned talking points as well as the questions and answers would be to get a feedback from the currently working health and family planning field staff, particularly the health workers (female), on the type of problems they face and the type of the questions they are asked in their family planning work; to analyse these and then prepare a needbased material.

- h. The field staff should be provided with appropriate educational aids and also check lists for selection of acceptors of various methods such as IUCD, oral pills etc.
- i. The health and family planning personnel should develop skills for working with the community, and encouraging their interest, enthusiasm, involvement and participation. They should be able to identify and satisfy some of their perceived needs, which will help in establishing their credibility within the community.

#### **4. Effective Communication and-Motivation**

- a. Education and motivation of the people normally proceed through four phases - (i) Sensitization *i.e.* creating an awareness and interest, (ii) Education *i.e.* further information gathering and evaluation for decision making; (iii) Motivation *i.e.* making decision for adoption and trial or experimentation; and finally; (iv) Practice *i.e.* adoption and continued use.
- b. Mass communication through exhibitions, hoardings, posters, leaflets, newspapers, magazines, films, television programmes and radio talks etc. are very helpful for sensitizing the community and creating an awareness and interest in family planning and contraceptive methods and also for allaying any adverse public opinion. However, communication through these mass media may reach and influence the couples to a limited extent. For further strengthening this education process and ultimately motivating the couples to accept and practice family planning, group communication and interpersonal communication play a most crucial role. It is in these latter types of communication process where the field staff has to carry out a major role. Obviously, therefore, there is an urgent need for strengthening their communication skill.
- c. For educating the community and motivating the individual couples, systematic, coordinated and complementary use of mass media, group orientation and interpersonal communication would be very important. It is also necessary to choose the means of communication appropriate to the local resources and the messages to be delivered.
- d. Except for certain cultural differences, the family planning messages to the clients and to the people in the community are fairly standard from one place to another and from one country to the other. The messages are usually on: What is family planning, why family planning - what are its benefits and what are the hazards of not accepting it; how to achieve family planning, where and when to obtain advice for clinical services or material etc; who is to provide necessary advice and guidance, and what is his/her competence.
- e. The nature of the messages will vary with different target groups and with the different approaches or the media used. Findings of any audience research survey and other relevant research studies will be helpful in constructing specific and effective messages.
- f. Even for the female method, the husbands should be contacted and educated and taken into confidence. Private practitioners and other medical and para-

medical persons of the locality should be oriented and educated. Considering the important role played by the family physicians in the decision making of many families, every opportunity should be taken to supply the necessary literature to them and to create in them a genuine interest,

- g. For carrying out meaningful and effective education and motivation programmes, appropriate educational materials and educational aids are to be prepared.

## 5. Contraceptive Delivery System

- a. Appropriate delivery system will depend upon easy accessibility; logistics of procurement, storage and supply; technical competence of providers; physical and monitoring facilities; and the management capability of the agency.
- b. Effective delivery of contraceptive services at doorsteps of the people is considered to be an important measure for promotion of small family norm. The channels through which the contraceptives are to be made available to the people in the community can be considered under three main groups: (i) through health services infrastructure and health functionaries; (ii) through private agencies, non-governmental organisations including voluntary organisations, and through social marketing; and (iii) through commercial channels.

Lkkjk'k

आज इस बात को अच्छी प्रकार से समझा जाता है कि किसी महिला के लिए बहुत जल्दी अथवा बहुत देर से गर्भधारण करना अथवा बार-बार गर्भ-धारण करना अथवा कम अन्तराल पर गर्भधारण करना, माँ और बच्चे दोनों के लिए खतरनाक है। अनियोजित तथा अनियंत्रित रूप से बच्चों का जन्म होना परिवार के लिए अनेक प्रकार की दूसरी कठिनाइयाँ भी उत्पन्न करता है। इसलिए परिवार कल्याण नियोजन को जीवन के अंग के रूप में धारण करना होगा। परिवार नियोजन को बढ़ावा देने के लिए प्रमुख रूप से दो प्रकार के दृष्टिकोण अपनाने होंगे:

क- एक ऐसा अनुकूल वातावरण तैयार करना, जिसमें लोग छोटे आदर्श परिवार की धारणा को ग्रहण कर सकें तथा यह सुनिश्चित करना कि वह प्रभावकारी गर्भ-निरोधकों का निरन्तर प्रयोग करते रहें,

ख- भावी गर्भनिरोध प्रयोगकर्ताओं को गर्भनिरोध के विभिन्न प्रकार के उपयुक्त तरीके उपलब्ध कराना।

गर्भ-निरोधकों के प्रयोग को बढ़ावा देने के लिए लोगों को शिक्षित करना होगा कि अनियोजित परिवार से किस-किस प्रकार की समस्याएं हो सकती हैं और नियोजित परिवार के क्या-क्या लाभ हैं तथा परिवार नियोजित रखने के लिए कौन-कौन से तरीके हैं। लोगों को उन कार्यात्मक प्रक्रियाओं के संबंध में शिक्षित करना होगा जो पुरुषों तथा महिलाओं में उनकी जनन प्रक्रियाओं को नियमित करते हैं, उन्हें यह बताना कि विभिन्न प्रकार के गर्भ-निरोधकों के प्रयोग के माध्यम से जनन क्रियाओं से किसी प्रकार हस्तक्षेप किया जा सकता है, और गर्भ-निरोध के विभिन्न तरीकों से क्या-क्या लाभ और हानियां हैं। जहां तक गर्भ-निरोधक विधियों को स्वीकार करने तथा उनको निरन्तर प्रयोग में लाये रखने का प्रश्न है, इस प्रक्रिया को अनेक पक्ष प्रभावित करते हैं। परिवार नियोजन के लिए आधुनिक गर्भ-निरोधकों के प्रयोग संबंधी इस प्रकार के कुछ महत्वपूर्ण पक्षों का इस लेख में समावेश किया गया है।

गर्भ-निरोधकों संबंधी विभिन्न पक्षों के बारे तथा उनके प्रयोग के बारे में इस लेख में दी गई सूचनाएं, उन सभी लोगों के लिए बहुत ही महत्वपूर्ण होंगी जो शिक्षा, प्रेरणा तथा परामर्श के माध्यम से गर्भ-निरोधकों के प्रयोग को बढ़ावा देने के लिए जनता में कार्य कर रहे हैं।

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## **A STUDY ON PREGNANCY WASTAGE IN RURAL AREA OF HARYANA**

**G.V.S. Murthy\*, S.K. Kapoor\*\*, V.P. Reddaiah\*\*\* and L.M. Nath\*\*\*\***

### **ABSTRACT**

*The proportion of pregnancy wastage occurring in a village of the Comprehensive Rural Health Services Project of All India Institute of Medical Sciences in the Ballabgarh block of Haryana was estimated. Total pregnancies as well as live births were analysed. Pregnancy wastage was higher when the recall period was limited to 'one' pregnancy cycle as compared to the total reproductive period. Pregnancy wastage was also studied in relation to caste, socio-economic status, parity, birth order and maternal age of the respondents under study.*

Rapidly improving standards of obstetric care have effectively reduced the common causes of maternal mortality and morbidity. The improved pregnancy outcomes can be contrasted with pregnancy wastage which is rapidly emerging as a major cause of maternal ill health. Data available from the Union Ministry of Health and Family Welfare, Government of India, reveal that abortions are responsible for 13.7 per cent of maternal deaths in rural India<sup>1</sup>. Estimates of pregnancy wastage have varied considerably. It is reported that about 4 million induced and 2 million spontaneous abortions occur every year in India<sup>2</sup>. However, no basis for this was suggested. Most of the other studies have also indicated a higher incidence of spontaneous abortions. A WHO Scientific Committee estimated total pregnancy wastage at 15-20 per cent of all pregnancies<sup>3</sup>. Available data are very limited and hospital based. A few community studies have been done in India. Because of these reasons the present study has been undertaken to estimate the prevalence of pregnancy wastage in rural areas and find out the relationship of pregnancy wastage with certain selected socio-biological correlates.

### **MATERIALS AND METHODS**

The study population comprised married women, 15-45 years of age residing in the village of Chhaiftsa, in the Ballabgarh block of Haryana. This village forms a part of the Intensive Field Practice Area of the Comprehensive Rural Health Services Project of the All India Institute of Medical Sciences, New Delhi. The population of the village in 1982 was 5632.

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The present study was conducted over a period of one year from June 1983 to May 1984. Information was collected by using a semi-structured, precoded, pretested and semi-open ended schedule which was administered to all the eligible women. There were 900 eligible women in this village and efforts were made to contact all the women and further at least two visits were made to all the women who were not available during the first visit. In spite of these efforts only 816 women could be contacted.

The schedule consisted of two different sections. The first section contained identification data and the obstetric history while the second section contained data on pregnancy losses. The obstetric history was gathered for the entire reproductive period and was arranged in chronological order. The first section was administered to all the eligible women while the second was administered only to women reporting a pregnancy loss in the preceding three years. Data on the type of loss, type of attendant, ensuing complications etc. were also collected. All the interviews were conducted by one of the investigators and a female health worker or a trained dai who assisted the investigator in conducting the interviews.

The definitions used for the study are as follows:

***Spontaneous abortion:*** Defined as the loss of the fetus at or before 28 weeks of gestation.

***Induced abortion:*** Defined as the deliberate termination of the pregnancy by any method.

***A still birth:*** The fetus was born dead, after 28 weeks of gestation, showing no signs of life.

***Birth order:*** Defined as the rank of an index live birth, among other live births for each woman.

***Parity:*** Defined as the number of children, ever born alive to a woman (number of live births per woman).

A scale was used to assess the socio-economic status of the women. The information thus gathered was then analysed for both the total reproductive span as well as for a three year period, preceding the study.

## RESULTS

Of a total of 900 women, who were eligible for the study, 816 could be contacted (90.6 per cent). An analysis of the literacy, socio-economic and demographic characteristics of the women who could not be contacted showed that they did not differ in any way from the women who were interviewed for this study. This comparison was made from the family demographic records maintained at the PHC.

The various socio-biological correlates of pregnancy wastage studied provided the following data. About 45.8 per cent of the women were 20-29 years of age, 73.9 per cent of them were involved in agricultural work and 70.2 per cent of the respondents were belonged to either the middle or lower middle socio-economic strata.

The proportion of pregnancy wastage was found to be 10.83 per 100 pregnancies and 12.14 per 100 live births, when the total reproductive span was considered as shown in Table 1. Analysis of pregnancy wastage during a three-year period preceding the study showed the proportion of pregnancy wastage to be 16.96 per 100 pregnancies and 20.42 per 100 live births which are given in Table 2.

Analysis of pregnancy wastage by caste showed a greater wastage occurring in the higher castes as compared to the lower castes as given in Table 3. Similarly, pregnancy wastage was higher in the upper socio-economic strata and lower in the lower socio-economic strata as shown in Table 4.

The age of the mother at the time of a given pregnancy was also analysed and it was seen that pregnancy wastage was high both below the age of 19 years and above the age of 30 years while the least wastage was in the age group of 20-29 years as given in Table 5.

Parity showed an inverse relationship with pregnancy wastage as described in Table 6. Birth order analysis showed least wastage. Induced abortions showed a linear trend with low wastage at early birth orders and highest at later birth orders with no termination at first birth order as shown in Table 7.

## DISCUSSION

Based on the data collected, an analysis was done for the total reproductive period, as well as for a three-year period prior to the study. As per results of the study, proportion of wastage was found to be higher when a three-year recall period was considered, indicating a definite recall bias. Thus, studies limiting the recall period to 'one' pregnancy cycle (usually 2-3 years) or prospective studies may give better estimates of the magnitude of pregnancy wastage. However, to draw conclusions ;on gravidity, parity, birth order and pregnancy order correlations with pregnancy wastage, based on a single pregnancy cycle, a very large sample of women would be required.

Though many studies have been conducted all over the world for estimating pregnancy wastage, most of these studies have been hospital based. From a retrospective study in Ghana, a wastage was reported of 10.2 per 100 pregnancies. Another study from Bangladesh reported a wastage of 10 per 100 pregnancies. From a sample of Taiwanese women, a loss of 12 per 100 pregnancies was reported. WHO collaborative studies in various parts of the world found an incidence of 12.5 per 100 pregnancies in Iran, 8.9 per 100 pregnancies in Philippines

**TABLE 1**  
**DISTRIBUTION OF PREGNANCY OUTCOMES IN THE TOTAL**  
**REPRODUCTIVE PERIOD**

| <b>Pregnancy outcome</b> | <b>No. of pregnancies</b> | <b>Outcome/100<br/>live births</b> | <b>Outcome/100<br/>pregnancies</b> |
|--------------------------|---------------------------|------------------------------------|------------------------------------|
| 1. Live births           | 2,988                     | -                                  | 89.17                              |
| 2. Still births          | 70                        | 2.34                               | 2.09                               |
| 3. Spontaneous abortions | 272                       | 9.10                               | 8.12                               |
| 4. Induced abortions     | 21                        | 0.70                               | 0.62                               |
| Total                    | 3,351                     | -                                  | 100.00                             |

**TABLE 2**  
**DISTRIBUTION OF PREGNANCY OUTCOMES IN A 3 YEAR PERIOD PRIOR**  
**TO THE STUDY**

| <b>Pregnancy outcome</b> | <b>No. of events</b> | <b>Outcome/100<br/>live births</b> | <b>Outcome/100<br/>pregnancies</b> |
|--------------------------|----------------------|------------------------------------|------------------------------------|
| 1. Live births           | 573                  | -                                  | 83.04                              |
| 2. Still births          | 8                    | 1.4                                | 1.16                               |
| 3. Spontaneous abortions | 92                   | 16.05                              | 13.34                              |
| 4. Induced abortions     | 17                   | 2.97                               | 2.46                               |
| Total                    | 690                  | -                                  | 100.00                             |

**TABLE 3**  
**DISTRIBUTION OF PREGNANCY OUTCOMES BY CASTE**

| <b>Caste</b>                                         | <b>Pregnancy outcomes per 100 total pregnancies</b> |                         |                                 |                             |                                        |
|------------------------------------------------------|-----------------------------------------------------|-------------------------|---------------------------------|-----------------------------|----------------------------------------|
|                                                      | <b>Live<br/>births</b>                              | <b>Still<br/>births</b> | <b>Spontaneous<br/>abortion</b> | <b>Induced<br/>abortion</b> | <b>Total<br/>pregnancy<br/>wastage</b> |
| 1. Higher Castes<br>(Rajputs etc.)<br>(469)          | 87.67<br>(1728)                                     | 2.28<br>(45)            | 9.23<br>(182)                   | 0.8<br>(16)                 | 12.33<br>(243)                         |
| 2. Lower Castes<br>(S.C. etc.;<br>(175)              | 91.9<br>(647)                                       | 1.56<br>(11)            | 6.53<br>(46)                    | -<br>(0)                    | 8.09<br>(57)                           |
| 3. Other Backward Castes<br>(Artisans etc.)<br>(172) | 90.68<br>(613)                                      | 2.07<br>(14)            | 6.51<br>(44)                    | 0.74<br>(5)                 | 9.32<br>(63)                           |
| Total<br>(816)                                       | 89.17<br>(2988)                                     | 2.09<br>(70)            | 8.12<br>(272)                   | 0.62<br>(21)                | 10.84<br>(363)                         |

Figures in brackets indicate absolute numbers.

**TABLE 4**  
**DISTRIBUTION OF PREGNANCY OUTCOMES BY SOCIO-ECONOMIC STATUS**

| Socio-economic status | Pregnancy outcomes per 100 total pregnancies |              |                      |                  |                         |
|-----------------------|----------------------------------------------|--------------|----------------------|------------------|-------------------------|
|                       | Live births                                  | Still births | Spontaneous abortion | Induced abortion | Total pregnancy wastage |
| 1. Lower (169)        | 92.5<br>(580)                                | 1.59 (10)    | 5.9<br>(37)          | -                | 7.49<br>(47)            |
| 2. Lower Middle (301) | 89.41<br>(114)                               | 2.25 (28)    | 7.25<br>(94)         | 0.8<br>(10)      | 10.59<br>(132)          |
| 3. Middle (272)       | 87.49<br>(2063)                              | 2.47 (30)    | 9.30<br>(113)        | 0.74<br>(9)      | 12.51<br>(152)          |
| 4. Upper Middle       | 87.89<br>(225)                               | 0.78<br>(2)  | 10.55<br>(27)        | 0.78<br>(2)      | 12.11<br>(31)           |
| 5. Upper (2)          | 85.71<br>(6)                                 | -            | 14.29<br>(1)         | -<br>(1)         | 14.29<br>(1)            |
| Total (816)           | 89.17<br>(2988)                              | 2.09<br>(70) | 8.12<br>(272)        | 0.62<br>(21)     | 10.84<br>(363)          |

Figures in brackets indicate total (absolute) numbers.

**TABLE 5**  
**DISTRIBUTION OF PREGNANCY OUTCOMES BY MATERNAL AGE**

| Maternal age at time of pregnancy (in years) | Pregnancy outcomes per 100 total pregnancies |              |                      |                  |                         |
|----------------------------------------------|----------------------------------------------|--------------|----------------------|------------------|-------------------------|
|                                              | Live births                                  | Still births | Spontaneous abortion | Induced abortion | Total pregnancy wastage |
| 1. ≤ 19 (131)                                | 84.93<br>(654)                               | 2.47<br>(19) | 12.21<br>(94)        | 0.39<br>(3)      | 15.07<br>(116)          |
| 2. 20-24 (197)                               | 91.62<br>(1137)                              | 1.45<br>(18) | 6.77<br>(84)         | 0.16<br>(2)      | 8.38<br>(104)           |
| 3. 25-29 (180)                               | 90.91<br>(720)                               | 2.40<br>(19) | 5.81<br>(46)         | 0.88<br>(7)      | 9.09<br>(72)            |
| 4. 30-34 (106)                               | 87.93<br>(357)                               | 2.22<br>(9)  | 8.13<br>(33)         | 1.72<br>(7)      | 12.07<br>(49)           |
| 5. 35-39 (109)                               | 86.92<br>(113)                               | 1.54<br>(2)  | 10.77<br>(14)        | 0.77<br>(1)      | 13.08<br>(17)           |
| 6. 40-44 (93)                                | 58.33<br>(7)                                 | 25.0<br>(3)  | 8.33<br>(1)          | 8.33<br>(1)      | 41.66<br>(5)            |
| Total (816)                                  | 89.17<br>(2988)                              | 2.09<br>(70) | 8.12<br>(272)        | 0.62<br>(21)     | 10.84<br>(363)          |

Figures in brackets indicate absolute numbers.

**TABLE 6**  
**DISTRIBUTION OF PREGNANCY OUTCOMES BY PARITY**

| Parity      | Pregnancy outcomes per 100 total pregnancies |              |                      |                  |                         |
|-------------|----------------------------------------------|--------------|----------------------|------------------|-------------------------|
|             | Live births                                  | Still births | Spontaneous abortion | Induced abortion | Total pregnancy wastage |
| 0           |                                              | 12(3)        | 38(22)               | -                | 100(25)                 |
| 1           | 78.45 (91)                                   | 1.72 (2)     | 18.86 (22)           | 0.87 (1)         | 21.55(25)               |
| 2           | 85.42(211)                                   | 2.83 (7)     | 11.34 (28)           | 0.41 (1)         | 14.58(36)               |
| 3           | 82.70(263)                                   | 2.20 (7)     | 14.78 (47)           | 0.31 (1)         | 17.29(55)               |
| 4           | 88.92(353)                                   | 2.27 (9)     | 7.81 (31)            | 1.0 (4)          | 11.08(44)               |
| 5           | 89.31(468)                                   | 3.24 (17)    | 6.49 (34)            | 0.95 (5)         | 11.08(56)               |
| 6           | 93.37(366)                                   | 1.27 (5)     | 4.60 (18)            | 0.76 (3)         | 10.68(26)               |
| 7           | 91.97(424)                                   | 2.17 (10)    | 4.99 (23)            | 0.87 (4)         | 8.03(37)                |
| 8           | 92.72(395)                                   | 0.170 (3)    | 6.34 (27)            | 0.24 (1)         | 7.28(31)                |
| 9 and above | 93.71(417)                                   | 1.57 (7)     | 4.49 (20)            | 0.23 (1)         | 6.29(28)                |
| Total (816) | 89.17(2988)                                  | 2.09 (70)    | 8.12 (272)           | 0.62 (21)        | 10.84(363)              |

Figures in brackets indicate absolute numbers.

**TABLE 7**  
**DISTRIBUTION OF PREGNANCY OUTCOMES BY BIRTH ORDER**

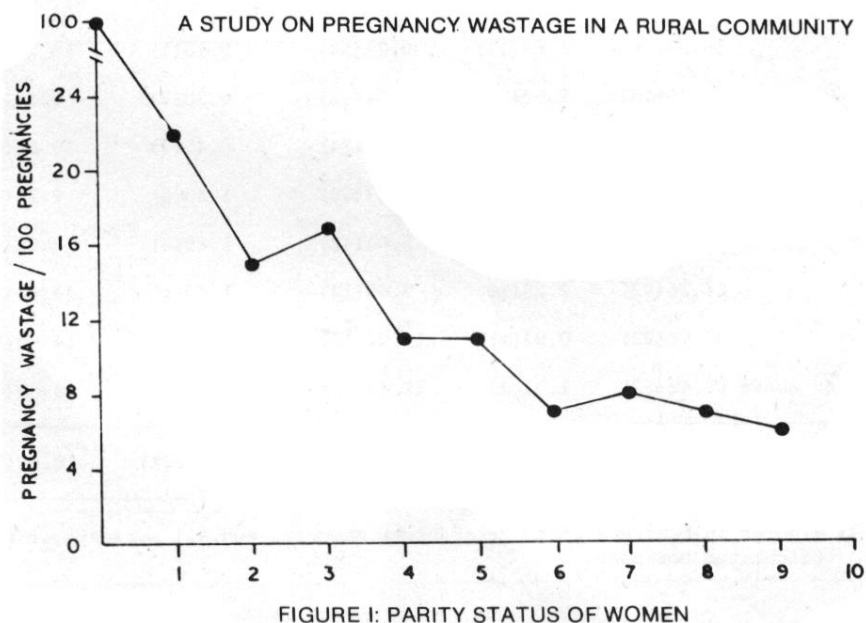
| Birth order | Pregnancy outcomes per 100 total pregnancies |             |              |            |               |
|-------------|----------------------------------------------|-------------|--------------|------------|---------------|
|             | Live birth                                   | Still birth | Spont. abort | Ind. abor. | Total wastage |
| 1           | 87.27(679)                                   | 2.83(22)    | 9.9(77)      | -          | 12.73(99)     |
| 2           | 89.89(587)                                   | 1.68(11)    | 8.27(54)     | 0.16( 1)   | 10.11(66)     |
| 3           | 91.46(482)                                   | 1.52(8)     | 6.64(35)     | 0.38(2)    | 8.54(45)      |
| 4           | 89.12(393)                                   | 2.72(12)    | 7.71(34)     | 0.45(2)    | 10.88(48)     |
| 5           | 90.75(304)                                   | 1.79(6)     | 5.97(20)     | 1.49(5)    | 9.25(31)      |
| 6           | 91.18(217)                                   | 2.10(5)     | 5.04(12)     | 1.68(4)    | 8.82(21)      |
| 7           | 86.36(92)                                    | 2.28(1)     | 9.66(12)     | 1.70(4)    | 13.64(17)     |
| 8           | 85.98(92)                                    | 0.93(1)     | 11.22(12)    | 1.87(2)    | 14.02(15)     |
| 9 and above | 85.42(82)                                    | 1.04(1)     | 11.46(11)    | 2.08(2)    | 14.58(14)     |
| Total (816) | 89.17(2988)                                  | 2.09(70)    | 8.12(272)    | 0.62( 21)  | 10.84(363)    |

Figures in brackets indicate absolute numbers, and all percentages are calculated horizontally.

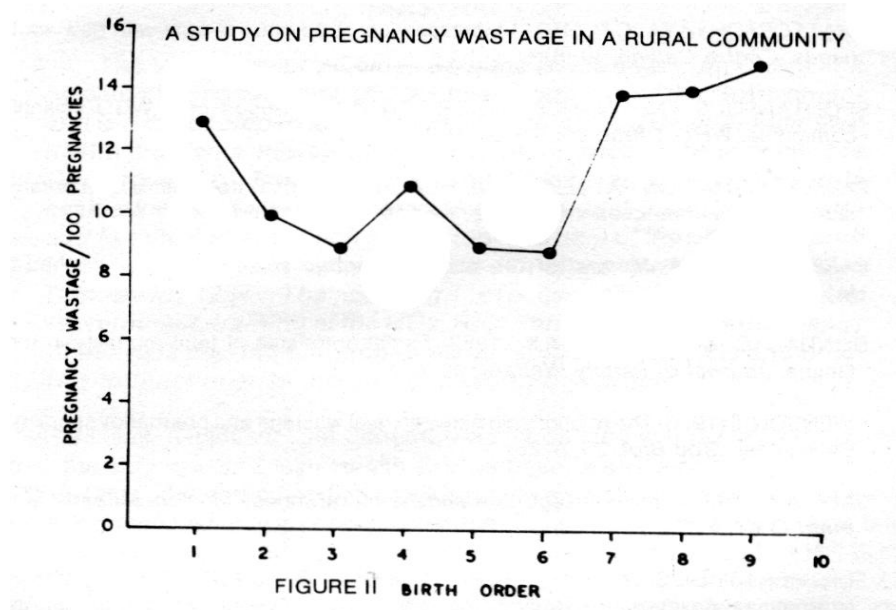
10.19 per 100 pregnancies in Egypt and 11.7 per 100 pregnancies in Pakistan. The WHO collaborative study from Gandhigram gave a very low estimate of 3.6 per 100 pregnancies while a prospective study from Punjab estimated the wastage to be 13.6 per 100 pregnancies. Another study from Rajasthan also reported a very low estimate of 40.4 abortions and 6.4 still births for every 1000 live births as against 121.4 wasted pregnancies for every 1000 live births in the present study. A WHO Scientific Committee had estimated the wastage at 15-20 per cent of all pregnancies. A number of factors may affect the data on spontaneous abortions. Failure to recognise an abortion when it occurs, lack of recall and inadequate rapport between the woman and the interviewer will lead to an understatement of the true magnitude. Other less confounding factors are the misreporting of temporary amenorrhoea, and induced abortions as spontaneous abortions. The reporting of induced abortions as spontaneous abortions may be prevalent in many places due to the stigma still attached to this procedure.

A higher wastage was reported by the higher caste groups as well as women belonging to better socio-economic strata. Similar findings have been reported by other investigators. This may be because women of higher castes and better socio-economic strata, may be less inhibited, in response to personal queries of this nature. It is also true that their recognition of abortion as a health hazard is better.

The relationship between maternal age and pregnancy wastage was in the form of a J-shaped curve. This pattern has been reported in other studies also. Data from the present study indicate that the least pregnancy wastage occurs at 20-24 years of age while the maximum wastage occurs at a maternal age of 40-45 years. Other studies have reported a high wastage below 20 years. Other studies have also reported a high wastage below 20 years and the least wastage at 20-29 years. Yet, in another study a high wastage below 20 years was also reported and minimal wastage at 20-34 years and a very high wastage thereafter.



An inverse relationship was found between parity and pregnancy wastage (Fig. I). With higher parity, pregnancy wastage was less, meaning that a woman with a greater number of live births had a lesser number of wasted pregnancies and *vice versa*. Similar findings have been reported by WHO collaborative studies. As per findings of the studies the present study has also found that increasing birth order had a higher pregnancy wastage as shown in (Fig. II). A high loss at the first birth order was found with the maximum incidence of spontaneous abortions occurring at birth orders three to five. It was also commented that pregnancies of advanced birth orders were at greater risk of aborting spontaneously.



The present study has generated data on pregnancy outcomes and wasted pregnancies and the association of pregnancy wastage with many socio-biological correlates at community level. It was strongly felt that a regular recording of menstrual histories by the female health workers during the course of their routine beat schedule would go a long way in providing data on a national scale.

#### सारांश

हरियाणा के बल्लभगढ़ ब्लॉक के एक ग्राम में अखिल भारतीय आयुर्विज्ञान संस्थान की विस्तृत स्वास्थ्य सेवाओं परियोजना में गर्भ क्षति के अनुपात का अनुमान लगाया गया। कुल गर्भ और जीवित जन्मों का विप्लेषण किया गया। यह देखा गया कि कुल प्रजनन काल की अपेक्षा गर्भ क्षति उस समय अपेक्षाकृत अधिक थी जब यह समय एक गर्भ चक्र तक सीमित था। अध्ययन में उत्तरदाताओं की गर्भ क्षति का उनकी जाति, सामाजिक-आर्थिक स्तर, समानता, जन्म कम और माता की आयु के सम्बन्ध में अध्ययन किया गया।

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## **VILLAGE HEALTH GUIDES IN MAHARASHTRA**

**J.S. Sodhi\***

### **ABSTRACT**

*The Village Health Guides Scheme forms a very important link between the community and the health officials of the Government and is a major step to activate the community to look after their own health problems. In view of the great importance of the scheme, the Government of India assigned the task of another nation-wide evaluation of the HGs Scheme to the National Institute of Health and Family Welfare which in turn took the help of the other research institutes. This study was conducted in Maharashtra by Shri Ram Centre in 1984. The selection process of the HGs by the Government, training of the HGs, Role Perception and Performance of the HGs and the functional relationship between HGs and other health functionaries are summarized in this article.*

The Health Guides (HGs) Scheme was introduced in India in October, 1977. Under the scheme, 3.72 lakh Health Guides have been trained and positioned in 4170 PHCs till the end of 1985 to provide health care at the grass root level. Every village or community with a population of one-thousand selects one representative, who is willing to serve the community and enjoys its confidence. The HG is then given extensive training by the health department of the Government. After completion of the training, the HG is posted in the village and is given medicines, kit and an honorarium of Rs.50 per month. The HG is expected to provide treatment for minor ailments, educate the community about health related issues and bridge the communication gaps, as a representative of the community, between the community and the health officials of the Government.

The scheme has been comprehensively evaluated more than once. The first evaluation was conducted in 1977, by the National Institute of Health and Family Welfare in collaboration with other institutes in different parts of the country and covered aspects like the acceptability of the scheme, perception of objectives and responsibilities of HGs, their selection process, training, administration and logistics.

The performance evaluation was undertaken in a very preliminary way, since the scheme had been on the ground only for a few months at the time of the survey. The study revealed that there was a massive support to the scheme, particularly from the community. There were also variations in the degree of understanding of objectives of the Community Health Volunteers (CHVs) [as the HGs were known then] and responsibilities of various officials and functions. Certain

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recommendations were made with regard to criteria of selection, training of HGs and the trainers.

A repeat evaluation was also taken up by NIHFW in 1979 in collaboration with the research institutes. This evaluation was more comprehensive covering all aspects of the qualitative aspects of the scheme and included both old (covered in October, 1977) as well as the new areas under purview of the scheme. This repeat evaluation focussed on the level of knowledge and job performance of CHVs, the degree of acceptability of the scheme by the community and identified problems and difficulties experienced in the implementation of the scheme.

This evaluation also brought out a massive support to the scheme by the community. About 92 per cent of the community members stated that the CHVs provided services to all people irrespective of castes and economic status. About 90 per cent of them also stated that they were fully satisfied with the services of CHV and 80 per cent felt that the CHVs felt responsible for the health problems of the community. An overwhelmingly large percentage of community members and leaders also agreed that the CHVs scheme ensured a continuous service of health care in the villages and is an answer to the health problems of the rural areas.

The study followed a very rigorous sampling design covering ten districts and twenty PHCs in the State of Maharashtra. A multi-stage stratified sampling design was adopted in selecting the PHCs, community members and leaders. The PHCs of the State were serially listed and one PHC was randomly selected from the list. The corresponding district of the PHC was then identified and another PHC from the same district was randomly selected. In this manner, two PHCs from each districts *i.e.* a total of 20 PHCs were selected. Most of the officials of the selected PHCs were interviewed. These were: Medical Officer In-charge, the Medical Officer, Health Guides and Supervisors *i.e.* the Block Extension Educator, Lady Health Visitor, Sanitary/Health Inspector. Four HGs, a total of 80, keeping 3:1 male female ratio, were randomly selected from each PHC. In the villages where the randomly selected HGs worked, eight households (community members), a total of 640, were selected.

While selecting the community members, care was taken to include two members belonging to Scheduled Castes/Tribes in each village. In addition to community members, two community leaders from each village, a total of 160, were also selected. In selected villages, on the basis of the availability, 47 trained dais were selected. Separate questionnaires were prepared for each one of the above mentioned categories of respondents and information was obtained by a set of trained investigators.

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\* PHCs name in the parentheses are: Nasik (Tribak and Ghoto), Satara (Parli and Nagthana), Dhule (Barkund and Nardhana), Akola (Mahari and Nagrulpur), Wardha (Anji and Bhidi), Bhandara (Dhargaon and Mohadi), Amravati (Toesa and Nimboli), Ratnagiri (Kotawade and Sangameshwar), Nanded (Loha and Mudkher) and Thane (Kesara and Khardi).

## **FINDINGS**

### ***Selection Process***

The Government of India had issued revised guidelines in 1981 for the selection of HGs. These related to the role of Village Health Committees (VHCs) and their involvement, the age, education, sex, social-orientation of the HGs and the involvement of Medical Officer In-charge of the PHCs. Normally, Medical Officer, In-charge (MO I/C) or Medical Officer, Health Guide (HG) is supposed to play the key role in the selection of HGs. The evaluation brought out that 36 per cent of Medical Officer In-charge or Medical Officer (Health Guide) stated to have played no role in the selection of HGs.

The new guidelines in 1981 had suggested that formation of Village Health Committees (VHCs), would help in selection of the HGs. The results show that there were no records at the PHC and the district level to show the exact number of villages where VHCs had been formed, although the official records at the State level show that such committees had been formed in about two-third of the surveyed villages. The implementation of the guidelines in respect of the formation of the VHCs has, therefore, been tardy. Besides, contrary to the guidelines issued by the Government of India, VHCs were not always involved in the selection of HGs. Even where VHCs had been formed, activities of HGs, Trained Dais (TDs) and other health staff were not generally discussed in the meetings of such committees. The concept of community involvement in terms of supervision of HG by the VHCs was not, therefore, being implemented.

The guidelines stipulated that the HG should belong to the age group of 30-40 years. The study reveals that about one-fourth of HGs were of less than thirty years of age. According to Medical Officer In-charges, they had deviated from the norm because of the selection of the females, who were not available in the specified age group.

The desired educational standards for HGs were expected to be at least the sixth standard. The educational level of sample HGs shows that 82 per cent had better qualifications and the remaining 18 per cent had studied upto the primary level. The Medical Officer In-charges stated that this was because they could not get enough HGs who were educated upto the sixth standard.

### ***Supply of Inputs***

For effective functioning of the scheme, it is important that the Health Guide is provided with a manual (preferably translated in the regional language), medicines, blood slides, etc. The results show that more than half of the HGs had not been supplied with the manual at all and one-third of those who had received, had been supplied after six months of training. It is encouraging to note that the HGs, who had been supplied with the manual, were referring to it as and when required.

As regards the supply of kits to the HGs, three-fifth had not received them at all. Most of the others had received the kits much after the training. The Medical Officer In-charge explained that several items were in short supply and, therefore, the kits could not be supplied.

The Government guidelines were neglected to some extent as far as the periodicity of the supply of medicines to the HGs concerned. Along with this, the drugs (APC and anti-diarrhoeal tablets) and the dressing material were in short supply. A large percentage of HGs laid stress on increased and regular supply of medicines. The complaint about shortage of medicines and their irregular supply was reinforced by the community members and leaders. The latter felt that Panchayats could perhaps provide help to the HGs particularly by keeping a buffer stock of medicines.

About four-tenth of the HGs also complained of irregular supply of blood slides, diaries etc. The supply of diary to the HGs is essential because in its absence it is not possible for them to keep records.

### ***Honorarium***

Although the HGs are not considered an arm of the Government, they are given a token honorarium of Fts.50 per month. In a situation when the HGs have no office and they work away from the regular PHC set up, it is essential that a system for payment is devised. In the present set up, the only way for the HGs to collect the honorarium is to go to the PHC Headquarters, otherwise, it was seen that there were delays in getting the honorarium. About 38 per cent of HGs stated to have received the honorarium irregularly and 90 per cent of the HGs had to collect their honorarium during their personal visits to the Primary Health Centres.

In view of the small amount of honorarium, it was expected that the HGs would complain about it. However, the actual responses show that only 30 per cent of them were of the view that the amount was inadequate. Also, an increase in the honorarium amount was suggested by as many as 56 per cent of the community members and 81 per cent of the community leaders with the objective of improving the working of the scheme. This suggestion implies that the community felt satisfied with the services of HGs and desired that the HGs should be suitably rewarded. Therefore, increased honorarium, together with its regular payment, could go a long way in improving the working of the HG Scheme.

### ***Training***

**Trainers:** At the State level, the Officer In-charge of the HGs scheme had not received any formal training with regard to HG scheme. He had, however, organised orientation training/seminars/workshops and refresher courses for district level officers in-charge of the scheme. The duration of orientation training was 2-5 days and of refresher courses, three days each. At the PHC level. 52 Der cent of the MOs

and 81 per cent of the supervisors had received training in the implementation of the HG scheme. The period of training for about one-third of the MOs and half of the supervisors was more than 15 days and for other supervisors less than 15 days. Most of the trained MOs and supervisors were of the view that the training given to them was adequate because nine-tenth of them felt confident in providing training to HGs. However, about 26 per cent of MOs and 15 per cent of supervisors stated that the training imparted by them to HGs was not adequate. It is a healthy sign that they were aware of the inadequacy of the training imparted by them. There is, thus, a need for refresher courses for the MOs and supervisors to equip them with greater training capacities.

Most of the HGs felt that they were given adequate training. However, a large percentage of them could not recall the training received in areas of mental health, nutrition and communication. They, therefore, felt a need for continuous refresher courses. A large number of MOs and supervisors and some more community leaders and members also emphasised the need for continuous reorientation training to the HGs. The topics suggested were maternal and child health, health education, family welfare, immunization and first aid in emergencies. These should be specific to job functions of the HGs. Moreover, the training should lay emphasis on promotive and preventive aspects of health care. It will also be advantageous if the training could be provided in the villages too and not always at the PHC.

The drop-out rate during the period of training was low. A few HGs were also rejected for absenting themselves from training, not being serious about training, excessive involvement in village politics, etc. In most of the cases, new HGs were selected in place of rejected ones.

### ***Medical Officer (HG)***

In order to strengthen the administrative structure of the scheme, an additional post of MO(HG) has been created in the PHC. This was considered useful both by State and district level officers. The Medical Officer In-charge, however, felt that roles actually performed by MO(HG) were less than those expected of them. They expected MO(HG) to play a role in selection, training and supervision of the HGs, distribution of stipends, looking after the HGs problems and should also be involved in family planning motivation and MCH services.

### ***Role Perception of the Health Guides***

Most of the officers at the State, district and PHC level were satisfied with the role of Health Guides as a useful communicator and a link between the community and health service provider. The specific roles of the HGs as perceived by the MOs and supervisors were: (i) treatment of minor ailments; (ii) providing assistance and advice related to control of communicable diseases and nutritious diet; (iii) first aid during emergency; and (iv) educating pregnant mothers regarding immunization of mothers and children and advice regarding environmental sanitation and hygiene.

They also opined that the scheme was useful to the community as it provided services at the door steps, free and continuous health care, as and when needed and health education through the communities' own representative.

The HGs own response on their role perception shows that all of them had taken up this responsibility with the intention of serving the community. This was common, both among the male and female HGs. They also welcomed the scheme whereby the community could participate in health related problems. In addition, it was felt that the scheme provides employment to rural youth as well as an opportunity to get engaged in social work.

The community leaders, both formal and informal, had a fairly good perception of the role of HGs in respect of curative services as well as the preventive and promotive aspects, i hey, however, feu that curative and family welfare services had been delivered by the HGs more satisfactorily as a major responsibility while the preventive and promotive aspects of health like the mother and child health, health education and environmental sanitation had been given secondary importance.

### ***Performance of Health Guides***

The performance of the HGs as seen by the community members assumes great importance, since all the other efforts converge on it. The HGs are not provided any office and are also not supposed to have any fixed or minimum hours of work. These aspects have been left at the discretion of the HGs to adjust in accordance with the needs of the community. The data in this regard show that about half of the HGs were spending 2-3 hours per day on-the-job in their respective villages, a little less than one-third were spending 4-5 hours per day and one-tenth more than five hours per day. Most of the female HGs were also spending between 2-5 hours per day. To the overwhelming majority of the users, the HGs gave medicines for two to four days. Most of the patients also aot relief during this period. Most of them were suffering from dehydration, diarrhoea and malaria fever. Trie patients were also referred, both to the female health workers and the PHCs.

Most of the HGs (90 per cent) were providing services in their own houses and the rest in the houses of other villagers. During the month prior to the survey, about two-third of the community members had availed of HG's services. The HGs had treated, on an average, about six patients per day during the week prior to the survey. The HGs were also available to the community any time during the day and only a small percentage (5 per cent) of the community members felt that the HG had fixed working hours.

The community members felt that the most important activities actually performed by HGs, in order of importance were; the malaria work, family planning, maternal and child health, environmental sanitation and personal hygiene and immunization. A large percentage of community members felt that certain other responsibilities such as involvement of community, treatment of minor ailments,

infant and maternal care and control of communicable diseases were not being performed by the HGs. Thus, it is, in conformity with the findings of earlier evaluations, the HGs were still mainly involved in activities of curative nature. However, about 55 per cent of the community members had also sought some non-curative services and 88 per cent of them were also satisfied by the services. The community members approaching the HG with any complaint had received the services and almost all of them were given medicines. A negligible proportion of the community members, treated by the HG, did not get full relief but they were referred to the PHC.

Most of the community members were emphatic that the HGs did not show any bias against weaker sections in providing services to the community. About 95 per cent of the members had no complaint against the work of the HG in the village and the remaining 5 per cent had complaints which related to HGs asking for something in return for the services rendered, attending to work only during fixed hours, not residing in the village, not available all the time, non-cooperation etc. Nearly three-fifths of members who had any complaint against the HGs had informed the community leader or the VHC member about it. In addition, some of the community members reported that they had paid some money to HGs for his/her services. The community members, however, were overwhelmingly (98 per cent) in favour of continuing the HG Scheme.

Although a large majority of members were satisfied, among the HGs, one-fourth were not satisfied with their job. Shortage of medicines and lack of cooperation were the major reasons for not being able to perform their duties satisfactorily.

Most of the HGs were maintaining a diary or keeping the record relating to supplies of medicines received from PHC and their consumption, nirodh distribution, cases referred, cases needing follow-up and meetings with health staff. Only 45 per cent were maintaining records of vital statistics, IUD cases, etc. Very few were keeping record of mothers needing ANC and children needing immunization.

Most of the community leaders were also felt that HGs were performing their responsibilities of treating minor ailments and providing first aid in emergencies satisfactorily but the preventive and promotive aspects of health care were given secondary importance by the HGs. Some of the community leaders, however, felt that activities like education about nutritious diet, keeping the village and home clean, personal hygiene and advice to pregnant women were not being performed satisfactorily. Relatively, more of Scheduled Caste/Scheduled Tribe leaders felt dissatisfied with some of the activities of HGs.

A little more than two-third of leaders had consulted the HGs and among them a higher proportion was of the Scheduled Caste and Tribe leaders. The consultation was for minor ailments, advice on family planning and some emergency treatments. Majority of those consulting for minor ailments were also provided the services. The duration of treatment varied from one to four days for most of them and a majority of

them also recovered fully. The rest of the cases were referred to the PHC or the health workers. Only one community leader could recall an occasion when the HG did not perform his duty properly and two more had minor complaints against HGs. The work of the HGs was being supervised by the community leaders and about two-third of them were in constant touch with the HGs to supervise their work and render help. About 19 per cent of leaders mentioned rendering help to HGs in procuring the kit and thus, giving a boost to the family welfare programme.

Nearly 35 per cent of the leaders felt that Panchayats could provide help to HGs through building a buffer stock of medicines, or raising funds to face epidemics etc. Almost all leaders felt that HGs were providing equal services to all villagers including those belonging to Scheduled Caste/Scheduled Tribe. They felt that the scheme could be further strengthened by regular supply of medicines, emphasis on health education, continuous supervision, additional training and honorarium.

### ***Functional Relationship with Other Health Functionaries***

The Health Guide is expected to work in close cooperation with other health functionaries. This is, in fact, a crucial aspect of the programme. The results of the study showed that the HGs were seeking and giving help to the Health Workers, trained dais and others at the PHC. The interaction with health functionaries which enhances the utilization of PHC services, takes place when they seek each other's help or in meetings where exchange of ideas takes place. The purpose of the last visit of the Health Worker (HW) to the HGs was for seeking advice on immunization or getting help in family planning work. Similarly; HGs had contacted HWs to seek their help for immunization, family planning, preparation in slides and family welfare work. They had also referred about five cases per HG to HW during the last one month.

The TDs had contacted the HGs (48 per cent) during the last one month for the supply of medicines, nirodh/oral pill, care during delivery, conveying information about pregnant women and seeking help for taking emergency cases to PHC. The HGs had contacted TDs for taking care during delivery, supply of nirodh/oral pill, conveying information about pregnant women and immunization of pregnant women. According to TDs, collaboration with HGs could be intensified for educating mothers about nutritious diet for children, supply of nirodh/oral pill, care during delivery, supply of medicines for minor ailments, immunization of pregnant mothers and motivating cases for family planning.

Meetings between the HGs and health functionaries generally take place at the PHC level. During the last six months, all HGs had attended more than one monthly meeting at the PHC. In fact, about 91 per cent of them had attended five or more such meetings. The subjects discussed relates to educational aspects, review of targets and achievements of family planning and other administrative matters like stipend distribution, monthly report of health staff, etc.

The MOs were also contacting the HGs for coordinating their

activities. About half of them contacted HGs once a month and another one-third once a fortnight. The MOs (71 per cent) also provided technical assistance to HGs although some of them conceded that other health functionaries were also doing so simultaneously. The assistance by MOs were provided mainly in the areas of minor ailments, maternal and child health, family planning, immunization, hygiene, sanitation and collection of vital statistics.

In conclusion, it may be stated that the community members, the actual users for whom the HG's- Scheme has been started, were highly satisfied with the performance of Health Guides in Maharashtra. The HGs were devoting enough time, treating patients, supplying medicines and referring patients. Those who could not be treated by them were referred to other suitable places. The HGs also did not show any bias against the weaker sections in providing services to the community. Therefore, 98 per cent of the community members were in favour of continuing the scheme. The most important services provided by the HGs were related to malaria work, family planning, maternal and child health and immunization. Responsibilities of involvement of the community, control of communicable diseases, health education and education about nutritious diet were, however, not imparted by them. Thus, it is in conformity with the findings of the earlier evaluations, the HGs were still more actively involved in activities of curative nature and were giving secondary importance to those of the preventive and promotive nature.

In actual situation, the HGs responded to the job demands of the community and to that extent did their job satisfactorily. Since, the community did not put forth demands on activities of preventive and promotive nature, these functions were completely overlooked. This, however, does not justify the lack of interest of the HGs in these activities. The study also shows that the logistic of providing the manual, medicines, other items of the medicine kit and honorarium should be looked into more carefully. Moreover, refresher courses, both for the trainers and the HGs, should be made a regular feature of training of the Health Guides under the Scheme.

#### Ukjk'k

ग्राम स्वास्थ्य रक्षक योजना समुदाय और सरकार के स्वास्थ्य कार्यकर्ताओं के मध्य तक महत्वपूर्ण संपर्क-सूत्र और समुदाय को उनकी अपनी स्वास्थ्य समस्याओं की देखभाल करने के लिए सक्रिय करने की दिशा में एक कदम है। इस योजना की अधिक महत्ता के कारण भारत सरकार के स्वास्थ्य रक्षक योजना के दूसरे राष्ट्रव्यापी मूल्यांकन की जिम्मेदारी राष्ट्रीय स्वास्थ्य एवं परिवार कल्याण संस्थान को सौंपी जिसने इस कार्य के लिए अन्य शोध संस्थानों की मदद ली। यह अध्ययन महाराष्ट्र में सन 1984 में श्री राम केन्द्र द्वारा किया गया था। इस लेख में स्वास्थ्य रक्षकों के सरकार द्वारा चयन, उनके

प्रशिक्षण कार्यअपेक्षाएं और निष्पादन और स्वास्थ्य रक्षकों तथा अन्य स्वास्थ्य कार्यकर्ताओं के बीच कार्यकारी संबंधों का संक्षिप्त विवरण दिया गया है।

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## HEALTH TEAM DEVELOPMENT IN A PRIMARY HEALTH CENTRE AN EXPERIMENT

Bir Singh\*, V.P. Reddaiah\*\* and S.K. Kapoor\*\*\*

### ABSTRACT

*This article highlights the importance of team work in smooth functioning of a Primary Health Centre, nerve centre of health services in rural India. The authors share their experiences of an experiment on Health Team Development in a Primary Health Centre in rural field practice area of All India Institute of Medical Sciences, New Delhi.*

*The findings suggest that the health team development can be effective for ensuring good team work, implementation of health services in rural areas etc.*

Whether it is a football match or delivery of health services to the community through a health centre, the importance of team work cannot be emphasised more. A team is defined as a group of individuals having varied skills but working together for a common goal. In the context of health services, there is a great deal of emphasis on the concept of comprehensive health services.

In rural areas, the comprehensive health services are delivered through Primary Health Centres (PHCs). Though the idea of PHCs was put forth by Lord Dawson in as early as 1920 in India, the PHCs were established during the First Five Year Plan only (1951-56) after the recommendations of the Bhore Committee'. Presently, there are more than 11,000 PHCs and subsidiary Health Centres functioning in our country and an operational PHC has a team of about 450 community based medical and paramedical personnel catering to 80000-100000 population. This requires a high degree of team work to achieve the objectives of the PHC.

It has been noted that practically no significant attempts were made to assess the functional efficiency of the PHC team. More often than not, the administration of a PHC is based on *ad hocism*

Hence, an attempt has been made to assess the functional efficiency of the health team in a PHC keeping in view the objectives such as: (i) to assess the level of

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functional efficiency of the health team at PHC, Dayal Pur, using vital signs module; (ii) to identify the factors, if any, which may have been affecting the functioning of the health team adversely; and (iii) to re-assess the level of functional efficiency after controlling these factors.

## **MATERIALS AND METHODS**

**The Area:** Primary Health Centre, Dayal Pur was established in 1970-71 and is one of the two PHCs of Comprehensive Rural Health Services Project (CRHSP), Ballabgarh (Haryana) which is the rural field practice area of All India Institute of Medical Sciences (AIIMS), New Delhi.

This PHC caters to about 52,000 population distributed over 25 villages and divided into six sub-centres. Each sub-centre covers a population of approximately 8,500. The Health Team at the PHC consists of one Medical Officer, one Male Health Supervisor, and one Female Health Supervisor, one Male and one Female Multipurpose Worker (MPW) for each of the six sub-centres, a Laboratory Technician, a Trained Birth Attendant and a Female MPW stationed at PHC.

The Medical Officer is a Senior Resident of the Community Medicine posted for about one and a half to two years in the PHC. The remaining members of the team are permanent employees of AIIMS. The Medical Officer-in-Charge and the Male Health Supervisor are First and Second leaders of the Health Team respectively.

In addition to these team members, there are four or five interns posted at the PHC for a month during their rural training at CRHSP, Ballabgarh. The Village Health Guide Scheme and the Trained Dais Scheme were not introduced in the PHCs jurisdiction at the time of the study.

## **METHODOLOGY**

The first author of this article took over the charge of Medical Officer-in-Charge (MO I/C) in July 1984. After six months of functioning at the PHC, it was decided to assess the level of functioning of the health team objectively.

The method used was Vital Signs module developed as shown in Fig. 1. This method consists of interviewing each member of the health team separately by an independent observer. The questions are related to nine items. Each item carries a maximum score of four and a minimum of zero on the scale.

The responses of the team members were noted and scored for each item. All the expected answers against each item were marked and depending upon the number of correct responses obtained from the concerned worker, the score was marked against each item on the scale.

All the 18 members of the PHC, Dayal Pur, team were interviewed by an

### THE SCALE (VITAL SIGNS)

|                              |                               |                 |                               |
|------------------------------|-------------------------------|-----------------|-------------------------------|
| 1. Goal clarity and conflict | Low clarity and high conflict | <hr/> 0 1 2 3 4 | High clarity and low conflict |
| 2. Role clarity              | Roles unclear                 | <hr/> 0 1 2 3 4 | Roles clear                   |
| 3. Role conflict             | High role conflict            | <hr/> 0 1 2 3 4 | Low role conflict             |
| 4. Participation/Influence   | Few people participate        | <hr/> 0 1 2 3 4 | Everyone Participates         |
| 5. Commitment/Understanding  | Low commitment to decisions   | <hr/> 0 1 2 3 4 | High commitment to decision   |
| 6. Conflict management       | Avoid conflict                | <hr/> 0 1 2 3 4 | Confront conflict directly    |
| 7. Recognition/Involvement   | Low recognition               | <hr/> 0 1 2 3 4 | High Recognition              |
| 8. Support/<br>Cohesiveness  | Low cohesiveness              | <hr/> 0 1 2 3 4 | High Cohesiveness             |
| 9. Energy                    | Low energy and enthusiasm     | <hr/> 0 1 2 3 4 | High energy and enthusiasm    |

Fig. 1

independent member who was not a member of the team using this method. The data thus collected were analysed and the findings were conveyed to the health team in a meeting of the PHC staff.

Based on these findings, active efforts were made to remove the adverse factors by all the team members. All the team members were interviewed again by the same investigator, using the same technique.

For the purpose of analysis of scores, the following system was worked out:

**Score  
Performance**

|         |           |
|---------|-----------|
| Upto 18 | Poor      |
| 19-36   | Fair      |
| 37-54   | Good      |
| 55-72   | Excellent |

## RESULTS

Scores of health team members in nine items of the module used, before and after the intervention have been shown in Table 1.

The functional efficiency of the health team as reflected in performance of the team (in terms of various health indices) in the years 1984 and 1985 has been given in Table 2.

It was observed that initially the health team members had "Poor" or "Fair" scores in most of the items.

**Goal Clarity and Conflict:** By "Goal Clarity" is meant clarity of thoughts about the aims and objectives towards which a health team functions in a PHC. The aim is to improve the health status of the people in the jurisdiction of the PHC. This aim is achieved through some specific activities carried out by the health team.

It was found that Goal was not clear to most of the team members even though many of them were working in the organisation for the last 15 to 20 years. The score of 35 put the team in "Fair" category.

However after intervention, the team attained a score of 52 "Good".

**Role Clarity:** It means whether the team members were clear about the role which each of them was supposed to play.

It was observed that the team had a score of 30 only, thus putting it in the category of "Fair" performance. After the intervention, the score rose to 61 "Excellent" performance.

**TABLE 1**  
**SCORE OF HEALTH TEAM MEMBERS IN NINE ITEMS OF THE**  
**MODULE USED**

| <b>Item</b><br><b>After</b>  | <b>Before Intervention</b> | <b>Intervention</b> |
|------------------------------|----------------------------|---------------------|
| 1. Goal Clarity and Conflict | 35                         | 52                  |
| 2. Role Clarity              | 30                         | 61                  |
| 3. Role Conflict             | 21                         | 44                  |
| 4. Participation             | 30                         | 54                  |
| 5. Commitment/Understanding  | 30                         | 58                  |
| 6. Conflict Management:      |                            |                     |
| a. FS                        | 20                         | 37                  |
| b. MO I/C                    | 14                         | 47                  |
| 7. Recognition by:           |                            |                     |
| a. FS                        | 21                         | 32                  |
| b. MO I/C                    | 30                         | 57                  |
| 8. Support/Cohesiveness:     |                            |                     |
| a. FS                        | 20                         | 39                  |
| b. MO I/C                    | 36                         | 60                  |
| 9. Energy/Enthusiasm         | 32                         | 51                  |

**SOME OF THE**  
**HEALTH**

**TABLE 2**  
**INDICES IN PHC DAYAL**  
**PUR**

| <b>Indices</b>                          | <b>1984</b>              | <b>1985</b>           |
|-----------------------------------------|--------------------------|-----------------------|
| <u>Percentage Immunization Coverage</u> |                          |                       |
| In children upto 3 years:               |                          |                       |
| BCG                                     | 57                       | 91                    |
| DPT (3 doses)                           | 56                       | 81                    |
| OPV (3 doses)                           | 62                       | 91                    |
| Measles Vaccination                     | Not provided             | 81                    |
| In expectant mothers:                   |                          |                       |
| TT (2 doses)                            | 90                       | 95.4                  |
| Infant Mortality Rate                   | 71.4/1000<br>live births | 64/1000<br>live birth |
| Effective Couple<br>Protection Rate     | 30                       | 34                    |

**Role Conflicts:** Though the roles were clear to some extent, in their working there were coronets due to overlapping in some of the functions which were common to male and female MPWs.

On this item, the scores were 21 "Fair" and 44 "Good" before and after the intervention respectively.

**Participation and Commitment:** Though the team members' participation in planning of various programmes and the commitment to decisions taken was "Fair", it improved considerably after the intervention measures, the performance becoming "Excellent" on this item.

**Conflict Management:** In the functioning of any team, many conflicts arise due to many factors, *e.g.* incompatibility, lack of role clarity, etc. It was noted that conflict management by the Male Health Supervisor and Medical Officer-in-Charge was "Fair", *i.e.* conflicts were not confronted and solved. Hence, lot of discontentment by the subordinate staff in the team was present.

After intervention, conflict management by the Medical Officer-in-Charge became "Good" (Score 52). However, this remained "Fair" on the part of the Male Health Supervisor (Score 32).

**Recognition:** For proper functioning of a health team, the recognition of the work done by team members is an essential pre-requisite.

It was observed that recognition of the health worker's work was just "Fair" on the part of the Male Health supervisor and the Medical Officer-in-Uharge.

Necessary steps were taken in this regard, and the recognition improved. Improvement was much more on the part of the Medical Officer-in-Charge.

**Support and Cohesiveness:** The supervisors of the team are supposed to provide supportive supervision to the workers. Before the intervention, it was noted that performance of the leaders of the team was "Fair". The Medical Officer-in-charge source owner. After tne intervention, the performance of the Male Health Supervisor was "Good" and that of the Medical Officer-in-Charge became "Excellent".

**Energy and Enthusiasm:** The performance of the team was "Fair" on this item. However, it was obvious that after the intervention, the enthusiasm of the team enhanced very significantly and the team members were energetically carrying out their respective functions.

## DISCUSSION

After having assessed the team functioning level, plans were made to tackle the

adverse factors identified to be affecting the functioning of the team. The routine monthly meetings of the PHC were utilized to discuss and plan for improving the team functioning. Apart from this, a special method of "In-service" training was devised and implemented to improve the skills of the health workers<sup>3</sup>. The system is still in use and involves every member of the team actively. There was a marked improvement in skills and knowledge of health workers regarding various aspects of community health.

In the monthly meetings, the goals of the CRHS Project and the PHC were explained. The roles of various health workers were re-defined clearly after having detailed discussions with the team members. In areas where joint work was required, responsibilities were fixed specifically for each worker. There was no ambiguity and accountability introduced in specific terms.

The participation in work planning was improved by allowing the workers to plan for their activities. In this, supervisors provided only the necessary guidance. Since the plans for work were made and implemented by the workers themselves, their participation in the activities improved automatically.

The conflicts were confronted directly and managed to a satisfactory level. Delays in routine office dealings were shortened to a minimum possible by prompt action by the Medical Officer-in-Charge. This apparently instilled faith amongst the team members towards the team leaders.

The work of various sub-centres was assessed from time to time in these meetings. The workers performing well were acclaimed for their achievements in these meetings.

The Panchayat in village Dayai Pur was also involved and it instituted two annual awards - one for Best Male Health Worker and the other for Best Female Health Worker. Later, the work of various health workers was assessed objectively in terms of achievement in various fields and the best male and female health workers were awarded in a ceremony attended by all the team members and a large number of villagers.

Supervision, as discussed earlier was largely supportive in nature so that the lacunae in functioning of various team members could be identified and solved.

If any body was found to be ignoring the assigned work or faltering in any manner repeatedly, it was discussed in the PHC meetings. Action to be taken was discussed by all other members. However, instances of this type became fewer and fewer with the passage of time.

Groupism, so common in such settings, was discouraged. Every complaint by any team member was discussed openly in the PHC gathering as soon as possible. Dealing with every team member was uniform and fair.

Idea of these intervention activities was to inculcate a feeling of importance and equality amongst all team members to resolve the conflicts as fast as possible in a fair manner and thus bring in a great deal of cohesion amongst the team members.

These intervention activities were coupled with social activities also, a feature so conspicuously missing earlier. These included celebrating various festivals together, some special occasions like births, marriages in the families of team members, etc. The team members also visited each other's house in case of grief.

All these intervention measures initially undertaken, finally led to a spontaneous chain reactions of good team spirit and better work.

This was reflected in the performance of various activities of the team for the year 1985. There was a significant improvement in Immunization Coverage, Infant Mortality Rate, performance in the field of family planning etc.

As per findings of this study, it is suggested that this particular technique should be used at each PHC to improve the performance of the team in achieving the goal of Health for All by 2000 AD.

Lkkjk'k

इस लेख में ग्रामीण भारत की मेरुदण्ड अर्थात् प्राथमिक स्वास्थ्य केन्द्र के सुचारु रूप से कार्य करने में टीम कार्य की महत्ता के विषय में बताया गया है। लेखकों ने अखिल भारतीय आयुर्विज्ञान संस्थान, नई दिल्ली के ग्रामीण क्षेत्र में एक प्राथमिक स्वास्थ्य केन्द्र में स्वास्थ्य टीम विकास के एक प्रयोग पर अपने अनुभवों के विषय में बताया है।

निष्कर्ष में सुझाया गया है कि बेहतर टीम कार्य लेने के लिए और ग्रामीण क्षेत्रों में स्वास्थ्य सेवाओं के कार्यान्वयन के लिए स्वास्थ्य टीम विकास प्रभावी हो सकता है।

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## **HEALTH AND FAMILY WELFARE: MATERNITY BENEFIT FOR EMPLOYED WOMEN**

**N.N. Sarkar\***

### **ABSTRACT**

*The characteristics of maternity benefit, its ambit and scope of implementation are elaborately elucidated in this article. The constructive interpretation and critical comments alongwith the allusion of various legal provisions to awake its beneficiaries tor availing of the benefit sanctioned under the Maternity Benefit Act are highlighted.*

In the recent past, Maternal and Child Health (MCH) care programme has got wide recognition. International organizations like WHO, UNESCO and UNICEF etc. have already worked out various projects in this field. India also, is not lagging behind in this aspect. MCH programme has been integrated with the family welfare services and thus its network has spread all over rural India. Besides these, there are certain areas which require special attention, for instance, health care of the employed women who are on their family way. Although with the rise of educational status, more women are seeking employment and are thus emerging out in the various competitive fields against men folks, yet it is felt that special care is needed for the health of employed women before and after childbirth. Keeping in view our broad outlook and aspiration for better and prosperous social life, the Government of India has introduced the Maternity Benefit Act (No. 53 of 1961), hereinafter termed as Act, to provide such care to employed women.

### **SALIENT PROVISIONS OF THE ACT**

This is 'an Act to regulate the employment of women in certain establishments for certain periods before and after child-birth and to provide maternity benefit and certain other benefits' (preamble). It extends to the whole of India and has come into force on November 1, 1963 (Gazette of India, October 5, 1963). It applies, in the first instance, to every establishment being a factory, mine or plantation including any such establishments belonging to the Government and to every other establishment wherein persons are employed for the exhibition of equestrian, acrobatic and other performance such as dance, drama, etc.

No employer shall knowingly employ a woman, or no woman shall work in any establishment during the six weeks immediately following the day of her delivery or her miscarriage. No pregnant woman shall, on request being made by her in this regard, be required by her employer to do work during the period (mentioned below),

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any work which is of an arduous nature or which involves long hours of standing or which in any way is likely to interfere with the pregnancy or the normal development of the foetus, or is likely to cause her miscarriage or otherwise to adversely affect her health. The period referred to above shall be (a) the period of one month immediately preceding the period of six weeks, before the date of her expected delivery; (b) any period during the said period of six weeks for which the pregnant woman does not avail of leave of absence (Section 4).

Subject to the other provisions of this Act, every woman shall be entitled to and her employer shall be liable for, the payment of maternity benefit at the rate of the average daily wage for the period of her actual absence immediately preceding the day of her delivery and for the six weeks following that day. The aforesaid average daily wage means the average of the woman's wages payable to her for the days on which she has worked during the period of three calendar months immediately preceding the date from which she absents herself on account of maternity. Woman shall not be entitled to this benefit unless she has actually worked for a period of not less than one hundred and sixty days in the twelve months immediately preceding the date of her expected delivery, including the days for which she has been 'lay off during this twelve months.

The maximum maternity benefit which woman is entitled to shall be twelve weeks, that is to say, six weeks upto and including the day of her delivery and six weeks immediately following that day. In case of her death during this period, maternity benefit shall be payable only for the days upto and including the day of her death, but if a child is left behind, the employer shall be liable for the maternity benefit for the entire period of six weeks immediately following the day of her delivery (Section 5). In this situation, such benefit or amount shall be paid to the nominee or her legal representative (Section 7). In addition, every woman entitled to maternity benefit under this Act shall also be entitled to receive from her employer a medical bonus of twentyfive rupees, if no pre-natal confinement and post-natal care is provided for by the employer free of charge (Section 8).

Wage, as defined under Section 3(n), means all remunerations paid or payable in cash to a woman, if the terms of the contract of employment, express or implied, were fulfilled and includes: (1) such cash allowance (including dearness and house rent allowance) as woman is for the time being entitled to; (2) incentive bonus; and (3) the money value of the concessional supply of foodgrains and other articles but does not include: (i) any bonus other than incentive bonus; (ii) overtime earnings and any deduction or payment made on account of fine; (iii) any contribution paid or payable by the employer to any pension fund or provident fund or for the benefit of woman under any law for the time being in force; and (iv) any gratuity payable on the termination of service. 'Lay off, in short, means inability of employer due to shortage of material, break down of machinery or natural calamity etc. to give employment to a worker whose name is borne on the master rolls of his industrial establishment and who has not been retrenched'.

Woman entitled to maternity benefit may give notice to her

employer to that effect stating the date from which she will be absent from work and the name of the nominee to whom the benefit or amount may be given. Failure to give such prior notice shall not disentitle her of this benefit. The amount of maternity benefit for the period preceding the date of her expected delivery shall be paid in advance by the employer to the woman on production of the proof of her pregnancy and the amount for subsequent period shall be paid to her within forty eight hours of the production of proof of her delivery of a child (Section 6). In addition, woman shall also be entitled to leave alongwith wages for a maximum period of one month in case of her suffering out of pregnancy, delivery or miscarriage (Section 10). On being deprived of these benefits, woman may appeal to the prescribed authority or Inspector appointed by the Government for this purpose within sixty days from the date on which the order of such deprivation is communicated to her (Section 12). No prosecution for an offence punishable under this Act shall be instituted after the expiry of one year from the date of the commission of alleged offence (Section 23).

## **MISCARRIAGE**

Benefit in the case of miscarriage has also been provided under the Section 9 which states that, in case of miscarriage, a woman shall, on production of such proof as may be prescribed, be entitled to leave alongwith wages at the rate of maternity benefit, for a period of six weeks immediately following the day of her miscarriage.

'Miscarriage', as defined under Section 3(j), means expulsion of the contents of a pregnant uterus at any period prior to or during the twenty-sixth week of pregnancy but does not include any 'miscarriage, the causing of which is punishable under the Indian Penal Code (IPC). Although spontaneous abortion is usually termed as miscarriage, yet the word, 'abortion' is, at present, used as synonym with miscarriage. What has been described as miscarriage in the IPC is, in fact, induced abortion. Abortion which is not induced is called spontaneous, even if an external cause such as trauma or disease is involved<sup>3</sup>. The induced abortion means deliberate interference with the pregnancy, with an intention of terminating it, by the pregnant woman herself or by any other person<sup>4</sup>. The causing of such an induced miscarriage or abortion is punishable under the IPC except the medical termination of pregnancy (MTP) under the MTP Act (No. 34 of 1971) which provides for the termination of certain pregnancies by the registered medical practitioners and for matters connected therewith or incidental thereto. Since, the termination of pregnancy under the MTP Act is not punishable under the IPC, it falls under the definition of miscarriage given in Section 3(j) of this Act, because 'expulsion of the contents of pregnant uterus' in Section 3(j) does not exclude induced expulsion, the causing of which is not punishable under the IPC. Therefore, the employed woman otherwise entitled to the maternity benefit, will also be entitled to the benefit under Section 9 of this Act, in case she opts for MTP under the MTP Act.

## **MARITAL STATUS OF WOMAN**

While going through the material provisions of this Act, one may

raise a question whether the maternity benefit will also be given to the unmarried woman who becomes pregnant during her employment in an establishment, because the 'employed woman', not 'married woman', is used throughout this Act. This question is very relevant in the present context because there may be a woman who may challenge to be a unmarried mother for upholding the so-called "woman's lib" or there may be a case like that due to certain unfortunate adverse situation in life.

There seems to be two pronged arguments behind the raising of such a question: (i) since, ordinarily woman achieves the legitimate social status to become mother only by lawful marriage in our country, it may be said that 'employed woman' entitled to the maternity benefit under this Act ordinarily means employed (married) woman. Although the word, 'married' is not actually used in between the words 'employed' and 'woman' in the material provisions of this Act, yet its meaning could be read there and the qualifying word 'employed' has only selected out a section of married women for maternity and other benefits under this Act; and (ii) it is argued that the pregnancy of unwed woman is generally occurred due to illicit relation with man, which has no legal sanction in our society and the child thus born is termed as illegitimate one. The episode of such pregnancy and child-birth is condemned by our society as immoral and unethical. Since there is no specific mention about the 'unwed' in this Act, it could not be imported that the legal sanction for maternity and other related benefits under this Act is also meant for unwed woman for her such prohibited conduct in the society.

On considering the aforesaid arguments and the provisions of the Act, it may be said that this is a piece of social legislation and our legislature has wisely devised it considering, *pros* and *cons* of the various aspects of the society. Although, in our country, the social norms and ethics neither encourages premarital sex relation nor welcomes unwed mother, yet this legislation remains silent about the marital status of woman referred in the provisions. In fact, the wisdom of the legislature probably did intend that there must not be any question regarding the marital status of woman availing of maternity and other benefits under the Act. Thus, any question regarding the marriage or husband - such as social or legal marriage, staying together or separate, salary or status of the husband etc. cannot also be asked to woman by her employer while sanctioning the benefit under this Act.

Thus, the Act, it seems to protect the employed women from deprivation of their due benefit from the employers on the pretext of any such queries and covers not only the case of employed married woman but also the isolated case of the employed, unwed, divorcee or widow as well.

This Act actually aims at providing both physical and economic relief to the employed woman in certain vulnerable situation such as occurrence of pregnancy or its related events, which is physiological and natural outcome of the female life. Every woman derives her right to bloom through her womanhood and motherhood from 'life' and 'personal liberty' guaranteed under the Article 21 of the Constitution of India. Therefore, to become pregnant is a natural or fundamental right of woman.

Moreover, when an employed woman becomes infirm due to pregnancy, her meagre claim for such physical and economic relief at this critical juncture of her life cannot be denied because of her remaining unmarried. To become an unwed mother is a very unfortunate situation for an Indian woman and for this, she may have to face a lot of difficulties; but then her legal right to this meagre benefit cannot be throttled down by the morality and ethics. After all, we, both male and female, are human beings; we have imposed the value of morality and ethics and accepted natural or fundamental rights for a happy and prosperous social life.

In fact, this Act has upheld the essence of humanity which must prevail over morality and ethics. Although there might be a conflict between law and morality, yet the function of the society could be smoothly conducted if those be flanked by humanity.

## REMARKS

Since, this Act has been introduced to achieve a specific objective in the society, that is why 'shall' is used in its various provisions. The word, 'shall', imports mandatory force in those provisions.

The prescribed form or authority as mentioned in certain provisions means the proforma given or the authority described under the rules and regulations which may be subsequently made by the Government for the purpose under Section 28 of this Act. In absence of such rules, as in the present case, one may resort to the authority and the procedure already prescribed under labour laws, particularly the Industrial Dispute Act of 1947.

A certificate stating relevant facts and dates issued by a qualified medical officer or by a registered medical practitioner may suffice to serve as a proof for pregnancy, delivery of child or miscarriage as required under Section 6 and Section 9 of this Act, respectively. A certificate affirming the medical termination of pregnancy may be issued by the medical officer of any Government Hospital where the facilities for MTP exist or by qualified registered medical practitioners performing MTP in private clinics, approved by the authority under the MTP Act.

The tint of confusion, if any still persisted, about the meaning of miscarriage and abortion may be resolved with the help of chronology of the use of those words. This Act has inherited the word 'miscarriage' from the Indian Penal Code of 1860. The MTP Act of 1971 does not contain any of those words. 'Termination of pregnancy' is used there in the relevant provisions. Therefore, it seems that at the time of drafting this Act, the word 'miscarriage' was simply picked up from the IPC to denote the fact of both spontaneous and induced abortion. The word, 'abortion', in fact, does not exist in any of the three legislations cited above.

Lkkjk'k

इस लेख में मातृत्व लाभ के लक्षण, इसका विस्तार और कार्यान्वयन

के क्षेत्र को बताया गया है। मातृत्व लाभ अधिनियम के अंतर्गत लाभकारी महिलाओं के लिए स्वीकृत विभिन्न लाभों की जानकारी के लिए विभिन्न कानूनी प्रावधानों का विवरण और रचनात्मक व्याख्या की गई है।

#### REFERENCES

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2. THE INDIAN PENAL CODE (ACT OF 1860) Sections 312 to 316.
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5. THE GAZETTE OF INDIA (1975) Ministry of Health and Family Planning, Part II. Section 3, Sub-section (i), p. 2908-2915, October 18, 1975.