

**Policy Barriers Preventing Access to  
Emergency Obstetric Care in Rural India**

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**W.P.No. 2001-11-02**

**November 2001 / 1679**

WP1679



WP

2001-11-02  
(1679)

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**Abstract:**

India with its one billion people contributes to about 20% of all maternal deaths in the world. Even though infant mortality has declined in India maternal mortality has remained high at about 540 per 100,000 live births. Recent scientific evidence shows that access and use of high quality emergency obstetric care is the key to reducing maternal mortality and that high risk approach in ante natal care do not help in reducing maternal mortality significantly. This paper analyzes the policy level barriers, which restrict access of rural women to life saving emergency obstetric care in rural India. The paper is based on study of policies, research reports and experience of working in the area of maternal health over last several years. The paper describes how policies restrict basic doctors<sup>1</sup> from performing obstetric surgical procedures including cesarean section even in remote areas where there is no specialist obstetrician available. The para-medical staff such as the Auxiliary Nurse Midwife is also not allowed to manage obstetric emergencies in rural areas. The policy also does not allow nurses or basic doctors to give anesthesia. As there is limited number of anesthetists in rural areas, this further reduces access to life saving emergency surgery. New blood banking rules are very utopian, requiring many unnecessary things for licensing of a blood bank. Due to this, already limited access to blood transfusion in rural area has further reduced. Thus many restrictive policies of the government have made emergency obstetric care inaccessible in rural areas leading to continued higher maternal mortality in India.

***Key Words: Maternal Mortality, Policies, India, Emergency Obstetric Care, Anesthesia, Blood***

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<sup>1</sup> Basic Doctor in India has five and half year of medical training after high school graduation. This training includes one year of practical internship. The basic medical degree is called Bachelor of Medicines and Bachelor of Surgery (MBBS). This is equivalent to MD in USA.

# Policy Barriers Preventing Access to Emergency Obstetric Care in Rural India<sup>2</sup>

## **Background:**

India has over one billion people with per capita gross national income of only \$ 460. About 35% of the population lives below poverty line and 86% has incomes below 2 \$ per day.

India has one of the highest maternal mortality ratio in the world. The two national health surveys, done in 1992-3 and 1998-9 showed that the maternal mortality ratio (MMR) was 437 and 540 per 100,000 live births respectively (1, 2). Other smaller studies also report somewhat similar high rates of maternal mortality (3, 4). At this MMR it is estimated that about 100,000 – 120,000 women dies every year in India, which is about 20-24 % of all maternal deaths in the world. The key question is why maternal mortality so high in India while infant mortality has gone down from about 146 in 1951s to about 72 per 1000 live births in 1998 (5). There have been some studies trying to measure maternal mortality levels, but fewer researchers have focused on analysis of reasons for high maternal mortality (6).

Since late 1950s government of India has been developing network of Primary Health Care (PHC) centers and Sub- health centers staffed by doctors and Auxiliary Nurse Midwives (ANM)<sup>3</sup> respectively to provide MCH services. The major focus of the PHC system has shifted from basic MCH care in the 1950-60s to family planning, ANC with high risk approach, training of TBA in 1970-1980s and immunization program in 1980-1990s with resultant neglect of intra-natal care. This has happened under influence of various international health initiatives supported by donor funds.

Pioneering research done at Columbia University, school of public health over the last 15 years has conclusively shown that the best and most cost effective strategy for reduction in maternal mortality is to provide Emergency Obstetric Care (EmOC) services within the reach of all pregnant women. This is because it is not possible to predict or prevent complications of pregnancy and childbirth but there is generally time of several hours before a woman dies, so she can be saved by effective EmOC services (7). WHO, UNFPA and UNICEF have also now accepted this strategy of promoting EmOC and recommend to measure the availability and use of EmOC as process indicators for measuring progress towards reducing maternal mortality (8).

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<sup>2</sup> The author acknowledges the interactions and inputs of Mr. Hemant Dwivedi, Project Officer, IPD project, UNFPA Rajasthan, Dr. Venkatesh Srinivasan, UNFPA, India, Dr. Deborah Maine and Ms. Kavita Bali of AMDD project, which enriched this paper. Acknowledgements are also due to International Health Policy Program, which partly funded the work on blood bank policy and the Ford Foundation, which supported a project on Reproductive Health, which also contributed to some of the issues presented in this paper.

<sup>3</sup> ANM is trained for one and half year and learns nursing and midwifery. She is posted in rural area after training to serve a population of 5000.

There has been some research and analysis on level of maternal mortality and its causes (9, 10, 11, 12), but there has been scant attention paid to analysis of access and use of EmOC. There is only one study in India which shows that in most of the 10 districts studied only a small proportion of expected obstetric complications reached first referral hospitals (13). In India and globally also there is not much focus on how medical care policies limit access to EmOC (14, 15). Here we examine how policies related to practice of obstetrics, anesthesia, and blood transfusion affect access to life saving EmOC services in rural areas. Even though the paper focuses on India, such policy barriers may well be existing in many other developing countries as well as some remote and poor parts of developed world.

The information presented in this study is collected by review past research, policy and program documents, documents of international agencies and work experience as research adviser and consultant to national and international agencies in the area of maternal health over last 5 years in India.

### **Medical care policies & their impact on access to care:**

Given the new knowledge in the area of prevention of maternal mortality the critical variable is access to, and use of high quality EmOC by pregnant women with complications. Unfortunately this new scientific knowledge has not been well communicated in India to the policy makers and program implementers. The recently developed new Population policy and draft Health Policy of government of India does not fully recognize importance of EmOC in reducing maternal mortality (1, 16). Due to this the government program focus is still on ANC and high risk approach, training of TBA, neglecting delivery care and provision of EmOC.

### **Obstetrics only by obstetricians:**

The current government policy allows only a postgraduate qualified obstetrician to do Cesarean Section operation or any abdominal surgery. Basic doctors are not allowed to do this even in emergency. In contrast to this, some countries in Africa and Latin America allow basic doctors to do Cesarean Section after some practical training. In a poor country like India, where 70 % of the people lives in 550,000 villages, it not possible to provide obstetricians to do Cesarean Section every where. In many districts there are only one or two government obstetricians for an average of 2 million people! On the other hand each district already has about 60-70 basic doctors in various government hospitals in and health centers. But the policies restrict these basic doctors from doing Cesarean Section. In theory basic doctors can do some EmOC procedures like manual removal of placenta, suturing tears, assisted vaginal delivery etc. But they have never been asked to do it nor their performance in EmOC monitored.

ANMs, who are the lowest level of government health workers and their supervisors - the Lady Health Visitors<sup>4</sup>, are not allowed to do many of the emergency obstetric procedures such as treating infection with antibiotics, stabilizing a case of eclampsia and manual removal of placenta. All such cases are referred up.

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<sup>4</sup> A Lady Health Visitor is also trained for one and half year and supervises four ANMs. Some LHV's are promoted from ANMs after 10-15 years of experience and have to under go 6 months training.

Due to these restrictive government policies women who need Cesarean Section or other emergency obstetric procedures in rural and remote area have to travel for hours to the district hospital where obstetrician is available. Referral to higher level increases the overall cost of the treatment which many poor families cannot afford. Recent cost-recovery policies at district levels government hospitals have further increased the expenditure of the referred patients. Such policies restrict access to emergency care by the poor and delays treatment. Due to all this many women hesitate to seek care and die at home or in transit. Studies done in states of Andhra Pradesh, Maharashtra, and Rajasthan showed that 52%, 47%, 42% of maternal deaths happened in the home or in transit to a hospital respectively (12, 17, 18).

### **Anesthesia only by Anesthetists:**

There are very few anesthetists in rural areas of India. National data are not available but limited data indicate that each district has only 1-6 qualified anesthetists and most of whom are attached to the district hospital. At the sub-district level hardly any anesthetists are available. This is because only a few positions are available for postgraduate training in anesthesia and of the small number who become anesthetists the majority enter into private practice in urban areas due to much higher earnings and comfortable city life.

In India, as a policy anesthesia training is only given to doctors – nurses cannot become anesthetists, even though in USA, and some countries in Africa there is training for Nurse Anesthetists. In rural areas it is not uncommon to find obstetrician or surgeon working in the sub-district hospitals but generally there is no anesthetist. Hence patients needing major surgery have to be referred to higher level where anesthetist is available. Thus very restrictive policies about anesthesia, intended to provide very safe anesthesia, make access to it very much limited.

The curriculum prescribed by Medical Council of India (MCI)<sup>5</sup> for basic doctor includes that each doctor during internship will acquire skills of spinal anesthesia, local anesthesia, and will provide general anesthesia under supervision (19). But government policy does not allow basic doctor to give spinal or general anesthesia.

At some rural hospitals obstetricians and surgeons do give anesthesia and then operate while a medical officer or a nurse maintains anesthesia. But this is not accepted as a regular policy by government. Some state governments have trained basic doctors in anesthesia for 3 months for providing some kind of back up anesthesia if needed during abdominal sterilization operations for family planning program. Some of these 3-month anesthesia trained medical officers have been giving anesthesia on regular basis for many years and are quite proficient. But government does not recognize them as anesthetists even though WHO and World Federation of Societies of Anesthesiologists recommend, in their joint publication "Anesthesia at District Hospital" that doctors trained for one or two years in anesthesia can give safe anesthesia (20).

To provide quick redress to consumer complaints the government passed a new act called Consumer Protection Act, under which semi-judicial process was developed for providing fast justice. The recent inclusion of doctors under the purview of Consumer Protection Act, has made

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<sup>5</sup> MCI is an autonomous body created by act of parliament to decide standards of medical education and practice. It registers all the doctors in India and gives them license to practice.

is much easy to sue a doctor in event of an adverse outcome. The fear of this act has made doctors practice more defensive medicine where more patients are referred to higher levels to avoid risk to the doctors (21).

### **Recognition of qualifications and postings of specialists:**

In some states of India, doctors with post-graduate qualification in anesthesia or obstetrics have to join as a general duty medical officer and work in that position for 5-10 years before they can be promoted as specialists. Due to this policy doctors with specialist qualification are posted at a Primary Health Care Center or a urban clinic as a medical officer where there is no scope for any anesthesia or surgery. For example in two districts where data was collected 7 out of 12 doctors having postgraduate qualification in Anesthesia were posted in PHC centers or urban clinics. Whereas in those districts none of the sub-district hospitals where obstetricians or surgeons are posted, had any anesthetist. Thus local policies of recruitment and postings are also responsible for improper distribution of the anesthetist leading to further decrease in access to critical services needed for emergency obstetric care. Such policies also waste very scarce technical resources in a poor country like India.

### **Access to blood:**

In India, Anemia among women is very common. Recent national survey showed that 52 % women have anemia and 17 % have moderate or severe anemia (2). Data collected on causes of maternal mortality by Registrar General of India shows that anemia is responsible for 14-24% of the maternal death, while bleeding during pregnancy is responsible for 16-26% of maternal deaths (3). Access to blood is very important to treat maternal complications, but more so in a country like India where anemia is common.

Access to blood in rural areas of India is very difficult due to continued neglect of the blood banking services by the government in the past. Secondly due to high level of illiteracy, poverty and superstition, very few people are ready to donate blood in rural India.

Not understanding these ground realities, and not realizing the dangers of restricting access to blood the government of India made very utopian rules regarding licensing and control of blood banks in 1999 (22). This was done in response to Public Interest Litigation in the supreme court of India, by consumer groups pointing out that there was lack of safety in blood banks in India.

These rules for blood banks stipulate some good conditions such as all blood banks must be licensed and that they must test all blood for HIV and Hepatitis. But the rules also stipulate many conditions which are unnecessary for ensuring safety of the blood, such as blood bank must have 8 rooms, 3 of which must be air conditioned. The rules also have some conditions which are useful for large blood banks in urban areas which are collecting thousands of units of blood each month, but not cost effective realistic or essential for the safety of the blood in a small blood bank in rural area which only needs few hundred blood units per month. These conditions are that blood bank must have minimum staff of 3 full time people including a pathologist (or a medical officer with one year training in blood banking), a blood bank technician and a nurse. Due to such excessive requirements laid down by government for blood banks the costs have



gone up and some blood banks had to be closed down. Many African countries where HIV rates are very high as compared to India, they do not have such utopian rules for blood banking.

In many states in India, there is only one blood bank in each district which has a population of about 2 million people and has about 800 -1500 villages. In some districts there are no blood banks at all. Some hospitals in remote areas were collecting relative's blood when needed, test it and transfuse it to the patient without storage. This is called un-banked direct blood transfusion. This life saving practice had to be stopped after the new regulations.

Blood is not free. Even in the government hospitals in many states there is charge of about \$ 5-10 per unit of blood for testing and materials used. This charge can be waived if patient can produce a certificate that she is poor, which many poor cannot.

Thus utopian policies have made blood even more difficult to get in rural areas. If we assume even a conservative figure of 25% of maternal death due to non-availability of blood, then the 25,000 - 30,000 maternal deaths in India every year would be due to lack of access to blood.

### **Why do such policies exist?**

It is important to understand why such restrictive policies are present in poor countries like India.

Firstly, doctors, their associations and councils are politically strong, have heavy urban bias and want to protect earnings in the private sector, especially for specialists. They have little social concern or public health perspective. Hence they want to restrict provision of care only by the fully qualified members of the profession and specialty.

Secondly, the central government's policy-making wing is largely composed of non-technical people. The ministers of health at state and national level are politicians and need no qualification. The health and family welfare secretaries are career bureaucrats from the Indian Administrative Services (IAS). The technical officers in health department have much less power than the secretaries. The technical officers at the national level are most of the times clinicians without any public health, health management or public policy training. Only the officers from the Central Government Health Service, which are mainly in the urban areas, are eligible for these posts in the central government and hence they have no direct experience of working in rural areas. Thus no one in the policy-making circles is trained to take public health view balancing technical needs and rural situation.

Thirdly the public health professionals, the international agencies and academics have focused mainly on the Primary Health care development, but neglected secondary health care and the areas of health policy and management. Thus their inputs in policy making for secondary level care are limited.

Feminist organizations are powerful in India. They have been active in blocking certain policies such as introduction of injectable contraceptives in India. But they have not taken any cognizance of these restrictive medical care policies, which limit access to life saving technology for rural women. This may be due to their urban and anti-technology bias.

Local press and judicial and administrative processes have also contributed to this situation. The press does not take note of thousands of deaths happening at home of poor mothers due to obstetric complications, but if a single death happens in a small hospital there will be much adverse publicity in the local newspapers. Relatives of the woman may also bring in a law suite against the doctors and the hospital. This leads to further defensive practice and more referrals.

The government's administrative process also tries to find faults with the doctors if a patient dies in the hospital, but does not bother if the mother dies at home or while being referred.

### **The way out:**

The national and state governments have to actively change the policies that constrain access to EmOC in rural areas in India. Government must strive for the best possible services, but when they are not feasible to achieve in near future, it must establish simple but safe standards of services which can be provided by basic doctors and nurses, and not insist on services to be provided only by specialists at even at rural and remote hospitals.

Basic doctors must be trained for 9-12 months to provide anesthesia in rural hospitals. In remote areas where even such doctors are not available, then nurses and technicians should be trained for anesthesia. Such training should be of good quality and authorized by law. In very remote areas basic doctors should be trained for 1-2 years to do all basic surgical functions needed in a rural areas including Cesarean Section, and even other emergency abdominal surgery. Such doctors should be posted at sub-district level hospitals where there is no specialists and should be legally allowed to do surgery.

Blood banking regulation should focus on essential minimum safety requirements rather than desirable, but non-essential and expensive things. Un-banked, but properly tested blood transfusion should be allowed at sub-district level towns where there is no blood bank. District level blood banks should be strengthened and basic blood banks should be started at all sub-district hospitals.

### **Conclusions:**

In India maternal mortality has remained high, due to various policies, which have limited access to life-saving technology to women in rural areas. In trying to promote Primary Health Care and Family Planning, secondary level hospital based health care is neglected. Health policies should be in line with realities of rural India and be based on latest scientific understanding about maternal mortality. Uniform policies at all places (cities and rural areas) which restrict access to life saving technology, are very unjust to the people living in rural and remote places, and violate their fundamental human rights to life and liberty which is enshrined in Indian constitution.

Government, the donors and academics need to focus action at policy level barriers that restrict access to care. Government will have to adopt a public health approach and counter powerful lobbies of doctors and specialist in urban areas and in private practice, to ensure availability of appropriate and scientifically sound emergency care to the rural and remote populations, if

maternal mortality reduction is to be achieved in India. This need clear policy, proper strategy and political courage and commitment.

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