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**Promotion and protection of all human rights, civil,  
political, economic, social and cultural rights,  
including the right to development**

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## Addendum

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## Summary

The Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health visited India from 22 November to 3 December 2007 to examine maternal mortality through the lens of the right to health.

While the report gives particular attention to maternal mortality in Rajasthan and Maharashtra, the analysis and recommendations are relevant to all states in India. They are also relevant to countries in every region of the world.

Because of space constraints, the report focuses on (a) the health workforce and (b) accountability. The Special Rapporteur warmly commends the Government for a number of impressive initiatives, such as the National Rural Health Mission, and its policy of task-sharing in relation to providers of EmOC and anaesthesia. However, on applying a right-to-health approach to maternal mortality, he identifies a number of weaknesses. For example, the country is not training a sufficient number of skilled birth attendants and technical senior managers. The report includes a number of recommendations, for example, regarding maternal death reviews and EmOC indicators.

For a middle-income country of its stature and level of development, the rate of maternal deaths in India is shocking. Comparable middle-income countries have significantly lower rates of maternal deaths. The country is most unlikely to reach its relevant Millennium Development Goal targets. Although the problem is not simply a matter of funding, public spending on health remains among the lowest in the world. There is a yawning gulf between India's commendable maternal mortality policies and their urgent, focused, sustained, systematic and effective implementation. For the most part, maternal mortality reduction is still not a priority in India and, in the report, the Special Rapporteur suggests why this is the case.

## Annex

**Report of the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of health, Paul Hunt****Mission to India (22 November to 3 December 2007)**

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## I. Introduction

- At the invitation of the Government, the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health visited India from 22 November to 3 December 2007.
- In India there are numerous grave right-to-health issues, including mental health, tuberculosis, malaria, HIV/AIDS, water and sanitation and palliative care. This report, however, focuses on just one very serious right-to-health problem: maternal mortality.
- In the context of the right to health, the mission looked at maternal mortality with a view to understanding the steps taken by India to address this serious issue. Considering the size and complexity of the country, it was agreed with the Government of India that the Special Rapporteur would focus on, and visit, Rajasthan and Maharashtra. While there are deep differences across India, the present report has relevance beyond these two states. Moreover, much of the report's right-to-health analysis and many of the recommendations apply to maternal mortality in countries from every region of the world.
- The agenda for the visit of the Special Rapporteur was prepared in close cooperation with the Ministry of External Affairs, Government of India and the Office of the United Nations Resident Coordinator. During the mission, the Special Rapporteur met with then Minister of Health and Family Welfare, Dr. Anbumani Ramdoss; then Minister of State for Women and Child Development, Renuka Chowdhury; then Minister of State for External Affairs, Anand Sharma; then Chairperson of the National Human Rights Commission, Rajendra Babu; and Chairperson of the National Commission for Women, Girja Vayas, as well as with senior officials in Rajasthan and Maharashtra and the United Nations Country Team. The Special Rapporteur also met with judges and senior lawyers.
- During his visit the Special Rapporteur went to numerous clinics and hospitals in rural and urban areas in Rajasthan and Maharashtra, and made some unannounced visits to health centres, such as in the slums of Jaipur, Rajasthan, and to a district hospital in Pune, Maharashtra. He also had the opportunity to meet with representatives of numerous civil society organizations, including national medical associations.
- The Special Rapporteur is grateful to the Government of India, the state governments of Rajasthan and Maharashtra, the Office of the United Nations Resident Coordinator and the United Nations Population Fund (UNFPA) for their constructive cooperation, assistance and support. He is also grateful to civil society organizations, health workers, patients and their families for their critically important information and insights.

## II. Global and Indian contexts

- The main purpose of the present report is to examine maternal mortality in Rajasthan and Maharashtra through the lens of the right to the highest attainable standard of health; for this reason the bulk of the report is found in chapter IV. However, because this report cannot exceed 10,700 words, a supplementary note has been prepared which provides some additional information about the relevant global and Indian contexts.[1]
- The supplementary note briefly introduces some of the features of global maternal mortality, such as the biological, social and structural causes of maternal deaths. It also provides some additional contextual information about India, Rajasthan and Maharashtra. The supplementary note explains that India is one of the world's oldest civilizations, enjoying a rich, deep, cultural heritage. With a population of over 1 billion people, it is the world's largest democracy and second most populous country. In recent years, economic reforms have turned India into one of the world's fastest growing economies. Nonetheless, the country still suffers from high levels of poverty, illiteracy, malnutrition and widening inequality.
- The supplementary note also signals India's constitutional arrangements, international human rights commitments, national human rights institutions and recent substantial progress in the field of health. For example, longevity has doubled from 32 years in 1947 to 66 years in 2004. However, enormous health challenges remain. In the period 2001–2003 there was an average of 301 maternal deaths for every 100,000 live births in India.[2] While it represents a decrease since the 1997 estimate of 398,[3] this figure is higher than in many other middle-income and some low-income countries.
- The supplementary note briefly sets out some of the Government's health policies and initiatives, such as the highly commendable National Rural Health Mission (2005–2012) (NRHM), and includes a few remarks about Rajasthan, with a maternal mortality rate of 445,[4] and Maharashtra, with a maternal mortality rate of 149, i.e. approximately half the national average.[5]
- A number of especially important contextual issues are not confined to the supplementary note; they are also set out in some detail in chapters IV and V below. For example, those chapters discuss the impressive NRHM, the private health sector in India, the

constitutional division of responsibilities for health, and comparative maternal mortality data, as well as specific health initiatives, such as Janani Suraksha Yojana, Chiranjeevi Yojana, and a possible role for the National Human Rights Commission.

### **III. A right-to-health approach to maternal mortality**

12. In collaboration with colleagues, the Special Rapporteur has developed a right-to-health approach to maternal mortality that derives from international human rights law. This approach is not specific to India but applies to all countries. It is not possible to describe fully this approach here. However, it can be found in the supplementary note (and on the website) referred to in chapter II above.

13. It would be convenient if the right-to-health approach to maternal mortality could be reduced to a simple checklist or one-size-fits-all plan of action. But the right to health is more nuanced, and maternal mortality more complicated, than that. The right-to-health approach is better understood as a dynamic working model to be applied in diverse contexts by those committed to the reduction of maternal mortality.

14. Briefly, the approach entails three steps. First, identifying a number of fundamental right-to-health values and principles, such as equity, non-discrimination, transparency, quality and participation. Second, identifying some key right-to-health processes and mechanisms, such as a national maternal health strategy, situational analysis encompassing maternal mortality, indicators and benchmarks, referral systems and mechanisms for monitoring, accountability and redress. Although closely related, the values and principles tend to be abstract, and the processes and mechanisms more operational and functional. Because maternal mortality reduction depends upon an effective district health system, the third step applies these right-to-health values, principles, processes and mechanisms to the six essential building-blocks that together make up a functioning health system: health services; a health workforce; a health information system; medical products, vaccines and technologies; health financing; and leadership, governance and stewardship.[6]

15. These are not only building-blocks for a health system, they are also building-blocks for a national maternal health strategy, as well as for the realization of the right to health. Take the first building-block: health services. For maternal mortality reduction, health services must include: sexual and reproductive health education; family planning; antenatal care; skilled birth attendance; emergency obstetric care (EmOC); postnatal care; and safe abortion where legal. Each of the other five building-blocks (health workforce, etc.) also has a vital contribution to make to maternal mortality reduction. The building-blocks are interdependent.

16. The right-to-health approach to maternal mortality requires that the right-to-health values and principles (step one) and processes and mechanisms (step two) are consistently and systematically applied to each of the building-blocks so far as they relate to maternal health (step three).

17. The right-to-health approach to maternal mortality requires countries to prioritize those interventions that are the best available to them, taking into account epidemiological evidence, resource availability and other human rights considerations. Today, there is a growing international consensus around four cornerstone interventions to reduce maternal mortality: family planning, skilled birth attendance, effective referral networks and EmOC.[7] These are the measures required by international human rights law. In some contexts, additional (not alternative) measures, such as community-based access to antibiotics and misoprostol, where supported by evidence, may have an important role to play.

18. Crucially, the right-to-health approach to maternal mortality is not optional. Because the right to health gives rise to legally binding obligations, States are required to apply this approach to maternal mortality. Moreover, they are required to put in place those measures arising from the application of the right-to-health approach to maternal mortality, such as a national maternal health strategy, outreach programmes for disadvantaged women, sexual and reproductive health education, family planning, skilled birth attendance, effective referral systems, EmOC, and independent monitoring, accountability and redress mechanisms.

### **IV. A selection of maternal mortality issues in Rajasthan and Maharashtra**

19. When the right-to-health approach to maternal mortality signalled in chapter III is applied to Rajasthan and Maharashtra, a wide range of important issues comes to light. Because of space constraints, it is only possible to consider briefly a handful of the relevant concerns. Particular attention is given to a few issues arising from (a) the health workforce and (b) monitoring, accountability and redress. Among the important issues that are omitted are sexual and reproductive health education, family planning and referral systems. Although the Special Rapporteur visited both Rajasthan and Maharashtra, the discussion does not always set out the data and information for both states. In short, the discussion is selective and illustrative. Occasional references are also made to some other Indian states.

#### **A. Health workforce**

20. A health workforce is one of the essential building-blocks of a health system and the right to health. The four cornerstone interventions to reduce maternal mortality mentioned above depend upon a well-performing health workforce with a wide range of competencies. Because of space constraints, it is not possible to consider all the human resource implications of these cornerstone interventions. Instead, after some general remarks, the main focus is on skilled birth attendants, technical senior managers, providers of EmOC and providers of anaesthesia.

##### **1. Health workforce in crisis**

21. There is overwhelming evidence that India faces a massive, crippling crisis in its health workforce. In many districts, lifesaving

care is unavailable to women giving birth. Rural and disadvantaged areas are those most likely to be without a provider in public facilities. This compels many women either to go without any care at all, or to go to the private sector for life-saving services that should be publicly available for free. Recourse to the private sector impoverishes many women and their families.

22. In 2008, the Government of India organized a review of the National Rural Health Mission in Rajasthan. According to the report: “As everywhere else in India, the state of Rajasthan is also facing acute shortage of skilled health human resources to provide quality health care to the rural people in the state. The shortage of staff exists across all levels, including doctors.”[8] The report continues: “the state is facing huge problems to obtain adequate manpower to meet the IPHS [Indian Public Health Standard] norms.”[9] The report provides some specifics, for example, that there is an acute deficiency of specialists at the first referral unit/community health centre level and that 75 per cent of posts are vacant in Dungarpur.[10] Across Rajasthan, at the same level, only 81 of 381 posts for anaesthetists were filled, a shortfall of 79 per cent. Another recent study on Rajasthan found that about 67 per cent — and in tribal areas 83 per cent — of such units and centres did not have obstetricians.[11]

23. The health workforce crisis extends to Maharashtra. In 2008, the Government of India organized a review of the National Rural Health Mission in that state. According to the report, due to the non-availability of general practitioners (Bachelor of Medicine and Bachelor of Surgery (MBBS) doctors or medical officers), AYUSH doctors (doctors of traditional medicines) “are manning the Primary Health Centres”. The report adds that “the state has been facing the problem for a long time and in fact is interested in seeking solutions”. Emphasizing the shortage of anaesthetists, the report recommends that the “state needs to seriously carry out the rationalization exercise to post specialists, especially anaesthetists, wherever required”.[12]

24. When applying the right-to-health lens to India’s health workforce, numerous issues are brought into sharp focus, including the terms and conditions of health workers, the degree to which health workers respect (and reflect) cultural difference, and how important it is that they always treat patients with politeness and dignity. Because of space constraints, the main focus in the present report is on the enormous problems of availability (i.e. the national shortage of some categories of health workers) and accessibility (i.e. the fact that available health workers are not accessible on an equitable basis). The conclusion in subsection 4 of the present section emphasizes another important right to health issue: health workforce strategies and plans of action.

## **2. Availability**

25. In India, are there a sufficient number of maternal health workers available with the necessary competencies? By way of illustration, this question is considered in relation to skilled birth attendants and technical senior managers.

### **Skilled birth attendants[13]**

26. The provision of access to skilled birth attendants is one of the four cornerstone interventions to reduce maternal mortality. At first sight, India’s auxiliary nurse midwives (ANMs) play a decisive role in the delivery of this vital intervention. Of course, other health professionals, such as general practitioners, also contribute. Nonetheless, the Indian health system depends heavily upon ANMs making a major contribution to the provision of skilled and safe deliveries.

27. ANMs are multi-purpose health workers at the interface between the community and public health system. An ANM manages the lowest tier of the health system, the sub-centre, responsible for a population of 3,000–5,000 in rural areas. They are expected to perform a large, diverse range of preventive and curative functions, such as motivation for family planning, immunization, deliveries and treatment of childhood illnesses. They are also expected to reside in the sub-centre village and remain available around the clock. In recent years, their numbers nationwide have increased to more than 130,000. For the most part, there is not a significant shortfall of ANMs, for example, a recent report on Rajasthan concluded that in 2007 “there was no acute shortage of ANMs”.[14]

28. However, there are several major problems with ANMs. For example, they are often absent from the communities they are supposed to serve. In the present context, an especially grave problem is that ANMs do not have the competencies of a skilled birth attendant. As health programmes have evolved, the role and capacity of ANMs have changed substantially. In the 1960s, their main job was to deliver babies, as well as provide maternal and child health care. Today, their duties are mainly family planning, immunization and antenatal care. Their training has also changed. The new syllabus has less emphasis on midwifery; also, the training has been shortened from 24 to 18 months. As one study concludes, “ANM training today does not prepare [an ANM] for working in rural areas and does not give her skills to provide delivery care”.[15] In practice, the “M” for “midwife” has almost disappeared from the job title.

29. The international community defines a skilled birth attendant as “an accredited health professional — such as a midwife, doctor or nurse — who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborns”.[16] According to this definition, today’s ANMs are not skilled birth attendants. Neither, of course, are traditional birth attendants, whose training and competencies do not approach those of ANMs. A recent study emphasizes that the current “pre-service training of ANMs does not equip them to function as skilled birth attendants”.[17] Also, in its NRHM the Government recognizes that ANMs need upgrading to skilled birth attendants.[18] This has profound and far-reaching implications. As already observed, other professionals in India have the necessary competencies, but they are insufficient in number and are not in sub-centres. Since ANMs are not skilled birth attendants, India lacks one of the cornerstone interventions to reduce maternal mortality. This is a major factor contributing to the country’s stubbornly high maternal mortality.

30. Taking into account resource availability, India is in breach of its right-to-health obligations because it falls far short of having a sufficient number of skilled birth attendants.

### **Technical senior management[19]**

31. At the national level, maternal health is the responsibility of the Department of Family Welfare. Within the Department, the technical unit for maternal health consists of one Deputy Director General and three Assistant Commissioners. One Assistant Commissioner post has been vacant for many years. So, in effect, three national-level officers are responsible for all the technical and related aspects of maternal health throughout India. A survey of six states showed that only one (Kerala) had a technical officer dedicated full time to maternal health. Maharashtra had seven, and Rajasthan two, part-time maternal health technical officers.

32. In short, India has extremely weak technical capacity for managing maternal health programmes at the national and state levels. This represents a major constraint on the country's attempts to reduce maternal mortality and achieve Millennium Development Goal 5. Unless this constraint is removed, increased investment in maternal health runs the risk of being ineffective. The cost of increasing technical senior management is only a small fraction of the total resources devoted to maternal health in India.

33. At the national level, a country of 1 billion should have at least 10 maternal health technical officers (1 per 100 million).[20] A state of 50 million should have at least five maternal health technical officers (1 per 10 million). So Rajasthan should have 5–6 officers, and Maharashtra 9–10. At the central and state levels, this will mean the appointment in India of about 110 maternal health technical officers with no other responsibilities. Those officers should have a background in public health, obstetrics, midwifery or related fields and should be provided with adequate administrative support. Working within an agreed framework, the officers should have the authority to plan, implement and monitor maternal health programmes without having to go back repeatedly to non-technical officers for approvals. At the national and state levels, there should be maternal health technical advisory committees to provide expert advice to the technical officers. Planning Commissions, the National Institute of Health and Family Welfare, and international organizations should also strengthen their maternal health expertise.

34. Taking into account resource availability, India is in breach of its right-to-health obligations because it falls far short of having a sufficient number of technical senior managers.

### **3. Accessibility**

35. Whether or not India has a sufficient number of maternal health workers with the necessary competencies, are they accessible on an equitable basis? For example, are they equitably distributed throughout the country and affordable to all?

#### **Inequitable access: systemic disadvantage**

36. Access is profoundly inequitable in India's health system. The Government recognizes this unacceptable state of affairs. For example, after listing some of the chronic conditions afflicting the population, the NRHM emphasizes that the "large disparity across India places the burden of these conditions mostly on the poor, and on women, scheduled castes and tribes especially those who live in the rural areas of the country. The inequity is also reflected in the skewed [distribution] of public resources between the advanced and less developed states".[21] Of course, this systemic disadvantage is reflected in maternal health indicators, for example, illiterate mothers and women from the lowest wealth quintile have reduced access to basic maternal health care.[22] To their credit, the authorities have developed numerous strategies, policies and plans, and invested considerable resources, to put the situation right. Many of these initiatives, not least the NRHM, are impressive and highly commendable, suggesting that the Government of India takes seriously its commitment and obligation to enhance access for all.

37. The following paragraphs provide a few comments on some of these initiatives, signal some problems and outline steps that should be taken.

#### **Providers of emergency obstetric care: delegation or task-sharing[23]**

38. The Government estimates that 6,000 doctors are needed to provide 24-hour comprehensive EmOC in the 2,000 rural first referral units scheduled to become operational by 2010. However, in 1999 there were only approximately 800 obstetricians in government service capable of performing caesarean delivery (one of the functions of comprehensive EmOC) at rural first referral units. Recognizing that there are around 25,000 general practitioners (or medical officers) in rural areas, the Government, with the Federation of Obstetric and Gynaecological Societies of India, instituted a programme to train general practitioners to provide comprehensive EmOC. In a pilot project, 17 were trained over 16 weeks. The pilot project was run in Rajasthan and Gujarat during 2004–2006. There is now a nationwide scale-up of the programme.

39. The Special Rapporteur warmly commends the Government and the Federation for their bold decision to train general practitioners in comprehensive EmOC – an example of delegation or task-sharing. As the training is scaled up, lessons must be learned from the independent evaluation of the pilot project. As the evaluation observes, "training medical officers in comprehensive EmOC is only one piece of the puzzle".[24] Nonetheless, it is a very important part of the puzzle and it is crucial that all necessary steps are taken to roll out the programme, as a matter of urgency, in Rajasthan, Maharashtra and elsewhere.

40. The independent evaluation found that problems with anaesthesia were the single greatest obstacle for the medical officers who were appropriately trained in comprehensive EmOC. Anaesthetists refusing to work with the trainees at government facilities signal a potentially widespread problem that could hamper the nationwide expansion of the programme. The Special Rapporteur urges anaesthetists, in accordance with their human rights responsibilities, to cooperate fully with this Government-approved programme.

41. Since there are over 20,000 obstetricians in India's private sector the problem, in relation to providers of EmOC, is not one of national unavailability but of inequitable access. While one way of enhancing access is by delegation or task-sharing, there are others, such as incentives to work in underserved areas, some of which are signalled in later paragraphs.

#### **Providers of anaesthesia: delegation or task-sharing[25]**

42. Anaesthesia is an essential component of the provision of comprehensive EmOC. Yet there is a critical shortage of anaesthetists in India's rural areas, including in Rajasthan and Maharashtra.

43. In 2002, the Government of India developed a 17-week training course, the Life Saving Anesthetics Skills programme, to train medical officers to provide anaesthesia services to EmOC providers. Despite resistance from the Indian Society of Anaesthesiologists, including an unsuccessful legal challenge, the programme has expanded. By 2008, the programme was being implemented in 21 states, including Rajasthan and Maharashtra, with varying degrees of success. By 2009, Rajasthan had trained 33 medical officers under the programme, against a target of 377.[26]

44. Like the training of medical officers in comprehensive EmOC, training in anaesthesia is "only one piece of the puzzle". For example, a recent study on Rajasthan reported that in Dungarpur four medical officers had received training in anaesthesia but the shortage of obstetricians, equipment and services, such as blood transfusions, were obstacles to these newly trained personnel.[27]

45. There is evidence that the Life Saving Anesthetics Skills programme is helping to increase women's access to lifesaving anaesthesia during obstetric emergencies. Of course, the programme can and should be improved, as signalled by a recent study.[28] Nonetheless, the presence of medical officers trained under the programme enables some first referral units to function as comprehensive EmOC facilities. In short, the programme is helping to address one important part of the health workforce crisis gripping Rajasthan, Maharashtra and other Indian states. Everything possible should be done to promote the training of a sufficient number of medical officers in anaesthesia and to ensure that the necessary facilities and services are in place to permit them to use their life-saving skills.

46. Although the Special Rapporteur asked the Indian Society of Anaesthesiologists how many members they have, he did not receive a reply. However, he understands the problem is not a national shortage of, but inequitable access to, anaesthetists. While one way of enhancing access is by delegation or task-sharing, other measures can also be taken, some of which are signalled in later paragraphs.

### **Janani Suraksha Yojana and institutional deliveries**

47. A centrepiece of India's maternal mortality strategy, the Janani Suraksha Yojana (JSY) initiative, aims to increase the number of institutional (i.e. facility-based) deliveries by providing cash incentives to pregnant women. The scheme is especially aimed at enhancing the access of women living in poverty and members of Dalit and tribal communities. Essentially, women who deliver in health facilities (government or accredited private facilities) are given greater financial assistance than women who deliver at home. The financial assistance is subject to fewer limitations (e.g. age of the woman and number of children) in designated low-performing states, such as Rajasthan (but not Maharashtra).

48. JSY depends on accredited social health activists (ASHAs) who are rural women appointed as community health aides. While their duties extend beyond maternal health, crucial responsibilities include providing information about family planning, facilitating antenatal and post-natal care, arranging transport and escorting pregnant women to pre-identified health facilities for delivery. There is a cash incentive for ASHAs to ensure women deliver in a health facility. By mid-2009, nationwide there were nearly 50,000 ASHAs trained and in position with drug kits, a remarkable achievement.

49. The JSY and ASHA initiatives contribute to the four cornerstone interventions to reduce maternal mortality. Critically, they facilitate referrals from home to health facility and enhance access to skilled birth attendance and EmOC. There is overwhelming evidence that they have significantly increased the number of institutional deliveries. In Rajasthan, for example, the rates of institutional deliveries in 1998/99 were 15 per cent (rural), 48 per cent (urban) and 22 per cent (total). By the second year of the JSY implementation (2005/06), they were 23 per cent (rural), 68 per cent (urban) and 32 per cent (total).[29] Note, however, that about 60 per cent of women in India continue to give birth at home, mostly with traditional birth attendants or family members, i.e., without a skilled birth attendant.[30] For women living in poverty and members of Dalit and tribal communities, the percentage is substantially higher.

50. Nonetheless, the Government of India deserves much credit for its ambitious JSY initiative, fully funded by the central Government. However, there are problems with JSY. For example, the limitations on financial assistance penalize young women and women with more than two children. Also, in some cases the assistance depends upon a government card certifying the family is below the poverty line. The Special Rapporteur was informed that sometimes the poorest women do not have such a card. He was also informed that the actual costs incurred by women accessing institutional delivery often exceed the financial assistance provided by JSY, requiring them to take loans. These and other issues are cause for concern. However, JSY gives rise to one especially grave problem.

51. When visiting India, the Special Rapporteur found some facilities to be inspirational: community-supported, well-equipped and staffed by dedicated teams of health and other workers. But the record is extremely uneven. Some health facilities are grossly inadequate: dilapidated, ill-equipped, understaffed, and offering extremely poor services. JSY and other measures have increased the number of women delivering in health facilities: they have increased the demand side. But, in many cases, the range and quality of services in those facilities has been seriously neglected: the supply side has received too little attention. The reforms are seriously out of sequence. Crucially, the focus in India is on increasing institutional delivery, but institutional delivery is not a proxy for access to skilled birth attendance or life-saving care. While cash incentives are not necessarily inconsistent with human rights, a scheme that gives incentives to pregnant women to use facilities which do not have the services the women need is offensive, unethical and in violation of their right to the highest attainable standard of health. Much more effort must be devoted to ensuring that health facilities are not only adequate in number and accessible to all, but also functional and of good quality.

### **"Informal fees": corruption and barrier to equitable access**

52. Access has several dimensions, including financial access or affordability. There is only space to mention briefly one aspect of financial access in the present context. In some health facilities, there is a widespread practice of staff asking for money for services (e.g. transport, medicines and tests) that the Government has mandated are free.[31] “Informal fees” undermine the JSY scheme and sometimes compel women and their families to take out loans at high interest rates. These corrupt practices disproportionately affect those living in poverty and are a barrier to equitable access. In relation to each health facility, the Special Rapporteur strongly recommends the strengthening of transparency, as well as community and patient participation in monitoring and accountability.

### **Mandatory pre-qualification service in underserved areas**

53. One way of addressing profoundly inequitable access to health professionals is to make it mandatory for them to work in underserved areas, for a limited period, immediately prior to qualification. While this might not be appropriate in relation to all categories of health professionals, there is a strong case that it should apply to India’s general practitioners (MBBS doctors). Understood as part of professional development, such an arrangement needs to be very carefully discussed, prepared, supported, supervised and managed. The Special Rapporteur strongly recommends that steps be taken to put in place such arrangements as a matter of urgency in relation to appropriate categories of health professionals.

### **Incentives for post-qualification service in underserved areas**

54. This is another way of addressing deeply inequitable access to health professionals. The incentives need not only be financial. In some contexts, they might relate to accommodation, transport, opportunities for professional development, promotion, extra leave, among other things.

### **A role for public-private partnerships?**

55. The government of Gujarat, in consultation with others, has developed an initiative to provide free birth care to poor families through contracts with private obstetricians practising in rural areas. Known as Chiranjeevi Yojana (meaning a scheme to provide long life to mothers), a pilot study (five districts) was launched in 2005 and, on the basis of positive results, the initiative is now being introduced throughout the state (25 districts). The state contracts with private obstetricians to provide skilled birth attendance, including emergency services, to women living in poverty. The obstetricians are paid about US\$ 45 per delivery, irrespective of the type of delivery. The cost is small compared with the state’s health budget, and the scheme is widely promoted by governmental health workers. More than 840 private obstetricians are now enrolled and it is reported that access to skilled birth attendance and EmOC for women living in poverty has substantially improved.[32] This experience suggests that, in some circumstances and with proper institutional arrangements, public-private partnerships have a positive role to play in enhancing access to skilled birth attendance and EmOC for disadvantaged individuals and communities.

### **The human rights responsibility of private practitioners to enhance access**

56. In the above paragraphs we have signalled some of the positive contributions private practitioners are making to enhance access for disadvantaged individuals and communities. These contributions are important and welcome. In the Indian context, however, they are extremely modest.[33] As already observed, for example, the Government needs 6,000 appropriately trained health professionals to ensure that 2,000 community health centres can provide EmOC. While there are only 700 such specialist obstetricians in government service, there are over 20,000 specialist obstetricians in the private sector – and they could be doing much more than they are presently doing towards meeting the serious deficit in EmOC, especially in rural and disadvantaged areas.

57. Deriving from the Universal Declaration of Human Rights and elsewhere, private practitioners have a human rights responsibility to provide modest, predictable and sustainable assistance to public facilities in rural and underserved areas. Presently, the great majority of private practitioners in India are not discharging this important human rights responsibility. While they must decide how best to remedy this situation, they could, for example, provide their services to the public authorities for one day a month at governmental rates of pay for the duration of the National Rural Health Mission (2005–2012). Of course, the government authorities have a corresponding duty to ensure that such contributions are supported by the necessary facilities and equipment, so that they have maximum impact. Although private practitioners must decide how to proceed, for the great majority of them business as usual is not an option. Because arrangements such as these do not provide long-term solutions to a complex, systemic, workforce problem, the conclusion of the present section suggests an additional way forward.

## **4. Conclusion: health workforce strategy and plan of action**

58. In India, generally speaking, doctors and their associations and councils are politically powerful and have an urban and private sector bias. When considering health workforce issues, it is extremely important that this general orientation is kept firmly in mind. Adopting human rights and public health approaches are ways of ensuring that the interests of the rural and urban poor are given full and proper attention.

59. In 2006, the international community recognized the seriousness of the worldwide health workforce crisis and established the Global Health Workforce Alliance. Two years later, the Alliance published an important report that strongly recommends all countries prepare a 10-year health workforce plan.[34] Today, India has no such overarching plan. India’s health workforce issues are complex and grave and they are not going to be resolved without a nationwide health workforce strategy and plan of action. Within an agreed national framework, Rajasthan, Maharashtra and other states will have to prepare their own health workforce strategies. While the National Rural Health Mission anticipates that each state will prepare a health workforce plan, neither Rajasthan nor Maharashtra had one at the time of the Special Rapporteur’s visit. The absence of health workforce strategies and plans of action places India in breach of its right-to-health obligations.

60. As a first step, the Government should establish, as a matter of urgency, a high-level, high-profile independent task force to

prepare a report on human resources in health, both the public and private sectors, with a particular focus on the needs of rural and underserved areas. The report should be wide-ranging and include the issues of training, posting, transfers, incentives and delegation or task-sharing. The report's findings and recommendations should inform the health workforce strategies and plans of action of national and state governments.

## **B. Monitoring, accountability and redress**

61. As signalled in chapter III above, Governments have a responsibility to put in place arrangements that make monitoring, accountability and redress a practical reality. Although part of a World Health Organization (WHO) building-block for a health system (under "leadership, governance and stewardship"), in practice monitoring, accountability and redress are neglected in many countries.

62. In India, there is a growing recognition that monitoring, accountability and redress in relation to maternal mortality are exceptionally important and very weak. In the last two years, UNICEF, Human Rights Watch, the Center for Reproductive Rights and others have published important studies dedicated to different aspects of these issues in the Indian context.[35]

63. The National Rural Health Mission's commitment to monitoring and accountability, including community-based monitoring, is one of the Mission's most striking features. When visiting Rajasthan and Maharashtra, the Special Rapporteur was impressed by monitoring and accountability initiatives, including public meetings organized by the Women's Commission of Rajasthan that addressed maternal health issues, such as those arising from the JSY scheme. The National Human Rights Commission has devoted significant attention to women's right to health and the courts are presently considering public interest litigation on maternal health.[36] The People's Health Movement, Sahayog, the Centre for Enquiry into Health and Allied Themes (CEHAT), Sewa Ashram, Action Research and Training for Health and other national and local civil society groups have made indispensable contributions to monitoring and accountability in relation to the right to health. However, with honourable exceptions, these arrangements are not robust. For example, community processes within the National Rural Health Mission are patchy. According to one independent report of 2008, community-based monitoring in Rajasthan has started in some pilot districts, "but the result is not very encouraging as there is minimal participation from health officials, and they view it threateningly as if a public trial".[37]

64. Moreover, even if they were working well, India's existing monitoring, accountability and redress mechanisms are dwarfed by the enormity and complexity of the country's public and private health sector. Neither the basic instruments (e.g. indicators for EmOC), nor the basic machinery (e.g. maternal death reviews) are firmly established. In short, India's current monitoring, accountability and redress mechanisms in relation to the public and private health sector are not fit for purpose.

65. A country must have a range of mechanisms for monitoring, accountability and redress in relation to maternal mortality. The following paragraphs provide a sample of the relevant issues and some recommendations.

### **1. Counting maternal deaths**

66. Numerous countries do not accurately measure maternal mortality,[38] and India is no exception. Although the Registration of Births and Deaths Act (1969) makes it mandatory to record all births and deaths, it is well known that this civil registration system is not working properly. There is evidence that the majority of maternal deaths in India are not recorded.

67. The authorities do not have a sufficiently robust method of estimating maternal mortality on a routine basis.[39] The Sample Registration System, for example, produces annual crude birth and death rates, and the infant mortality rate, but it does not generate yearly rates for maternal deaths. The System has other drawbacks and reportedly provides inaccurate estimates for maternal deaths.[40] In 1999, three different studies estimated India's maternal mortality rate at 540, 466 and 396 per 100,000 live births, the first and second estimates being based on the same data.[41] Because of uncertainties about data, a major global study recently published in *The Lancet* estimated India's maternal mortality in 2005 to be between 300 and 600 per 100,000 births, a very large uncertainty bound.[42]

68. A study on maternal mortality in rural Rajasthan found that only 45 per cent of maternal deaths were registered by the official system of births and deaths.[43] While visiting Rajasthan, the Special Rapporteur was informed by one official that, in his judgement, even fewer than 45 per cent of maternal deaths were registered. A study on a district in Gujarat suggests 82 per cent underreporting of maternal deaths.[44]

69. Maternal deaths are underreported, whether they occur in public and private facilities or outside any facility. There are numerous reasons for this major problem, including a lack of familiarity with the legal reporting requirements and "a culture of fear of reporting events with a negative outcome".[45] Improving data on maternal mortality should be seen as part of a wider challenge: strengthening the national health information system. In the meantime, women are dying in childbirth and during pregnancy – uncounted and unreported.

70. India's current arrangements for recording maternal deaths fall short of the Government's responsibilities arising from the rights to life and health. The literature suggests numerous measures that could be taken to address this unacceptable state of affairs.[46] The next section outlines one of them: maternal death reviews.

### **2. Maternal death reviews – "plus"**

71. Knowing the statistics on levels of maternal mortality is important, but it is not enough. It is imperative to know what happened, why it happened and how the maternal death could have been averted. In *Beyond the numbers*, WHO set out five approaches to the collection of this information by way of maternal death reviews or audits.[47] Versions of these approaches are already in place in some parts of India. The government of Tamil Nadu, for example, has had a system of maternal death reviews for

over 10 years. Since 2005, some districts in Rajasthan (Dholpur, Tonk and Udaipur), as well as five other states, have introduced, with UNICEF support, a form of maternal and perinatal death reviews known as verbal autopsies. Since then these reviews have been rolled out in some other states, including parts of Maharashtra. The National Rural Health Mission promotes infant and maternal death reviews or audits.[48]

72. One of the advantages of maternal death reviews is that, as well as improving the accuracy of maternal mortality data, they are personalized: they record and investigate the particular death of an individual woman. Also, they provide an opportunity to look beyond the narrow medical causes of death and review social, economic, cultural, institutional, systemic and other factors. Maternal death reviews have been established and practised by health professionals in numerous countries, and they have a good track record in many health systems.

73. However, they are not without difficulties. For example, a small study of verbal autopsies in one district of Gujarat found incomplete reporting and no efforts by the district health office to analyse and use the information to avoid future maternal deaths.[49] Also, if they lead to the punishment of individual health workers, they run the risk of aggravating the non-reporting of maternal deaths. For this reason, both *Beyond the numbers* and the UNICEF project in India on verbal autopsies strongly favour a confidential process, with WHO stating clearly that “these reviews seek only to identify failures in the health-care system. They must never be used to provide the basis for litigation, management sanctions or blame.”[50] There will be occasions, however, when the review discloses serious professional misconduct by particular health workers that has to be considered and addressed, albeit in the light of the adequacy of systemic issues, such as training, supervision and working conditions. Nonetheless, individuals must never become scapegoats when the fault really lies with a failing health system or elsewhere.

74. The Special Rapporteur strongly recommends that all states introduce, as a matter of urgency, a system of maternal death review. Following a transparent, participatory process (that is not confined to health professionals), each state should choose its preferred form of maternal death review. However, the preferred form must encompass all maternal deaths, i.e. those occurring in public and private facilities as well as those not occurring in any facility. Adequate resources, training and supervision must support the preferred system.

75. *The “plus”: an independent body.* It is extremely important that once the individual reviews are complete they go to an independent body responsible for submitting an annual report to the state’s legislature. Based on an analysis of all the reviews, this public report should identify systemic and institutional trends, draw conclusions and make specific recommendations regarding law, policy and practice. The annual report should name neither individual women nor health workers. The independent body should publicly report whether or not its earlier recommendations have been acted upon. It may also be granted certain powers, for example, to compel a health facility to take specific measures. The Government of India must urgently establish an appropriate independent body that is responsible for using the maternal death reviews to hold the authorities accountable (the “plus”). One institutional option is briefly introduced in subsection 5 below.

### 3. Emergency obstetric care indicators – “plus”

76. Indicators for EmOC are essential to identify needs, monitor implementation and measure progress and enhance accountability.

77. In 1991, UNICEF asked Columbia University to design a new set of indicators for EmOC. After testing, six indicators were published by UNICEF, WHO and UNFPA in 1992 as the *Guidelines for Monitoring the Availability and Use of Obstetric Services*; a revised second edition was published in 1997. Ministries of health, international agencies and programme managers in over 50 countries around the world, including in India (such as in Rajasthan and Maharashtra), have used these indicators.

78. In 2006, an international panel of experts participated in a technical consultation to discuss modifications to the existing indicators in the light of 10 years’ wealth of experience. The agreed changes, including two new EmOC indicators, were published in 2009 by WHO and other organizations as *Monitoring Emergency Obstetric Care: A Handbook*.

79. Today, not only is there an international consensus that EmOC is a cornerstone intervention to reduce maternal mortality, but also the *Handbook* reflects an international consensus on how such care should be measured. The indicators should be included in countries’ health information systems to track progress at district, regional and national levels. Building on India’s experience with the *Guidelines*, the Special Rapporteur strongly recommends that all relevant district, state, national and international bodies in India use the eight indicators set out in the *Handbook*.

80. Integrated into a situational analysis or needs assessment, the indicators can provide a baseline from which progressive realization can be measured. In contrast to a maternal mortality rate or ratio, they can be used to measure performance in a small area and over a short period. As the *Handbook* explains, the data generated by the indicators will often signal the need for supplementary studies. While the indicators may expose, for example, a low met need for EmOC (indicator 4), they will not signal where all the problems lie.

81. Maternal death reviews and EmOC indicators are not alternatives but complementary initiatives. Moreover, they need to be supplemented by other monitoring and accountability arrangements, including indicators for the other cornerstone interventions to reduce maternal mortality.

82. *The “plus”: an independent body.* As with the information generated by the maternal death reviews, it is extremely important that the data from the indicators go to an independent body for review, analysis and recommendations. This body should be empowered to check whether or not appropriate steps are swiftly taken to address any shortcomings exposed by the data. It may have specific powers, for example, to conduct supplementary studies. The Government of India must urgently establish an appropriate independent body that is responsible for using the indicators to hold the authorities accountable (the “plus”). One institutional option is briefly introduced in subsection 5 below.

#### **4. Private sector**

83. Under international human rights law, Governments have a binding legal obligation to ensure that third parties, including the private sector, are respectful of individuals' and communities' human rights. In the absence of adequate self-regulation, this requires a Government to establish an appropriate, effective regulatory framework.

84. India's private health sector is enormous. While there are about 1.4 million health practitioners in India, only about 10 per cent of them are in government service. The private health sector has grown considerably in recent years, although more slowly in Rajasthan when compared to Maharashtra and all-India levels. Use of the private sector for maternal health services is lower in Rajasthan than Maharashtra. Nonetheless, in Rajasthan, 25 per cent of women use the private sector for delivery care.[51]

85. There is also a large informal sector in India that includes unqualified practitioners, practising paramedics, traditional healers, traditional birth attendants, and chemists who prescribe and dispense drugs. While informal care providers may have a limited role in providing delivery services, in Rajasthan they play a significant role in providing abortion services.[52]

86. Despite (or because of) its enormous power, India's private health sector is largely unregulated. Moreover, there are few signs that it is willing to adequately regulate itself. In these circumstances, the Government has a legally binding responsibility to introduce, as a matter of urgency, an appropriate, effective regulatory framework for the private health sector, including public-private partnerships.

87. The National Rural Health Mission emphasizes that "the private sector health care is unregulated pushing the cost of health care up and making it unaffordable for the rural poor"[53] and it confirms that one of the Mission's "supplementary strategies" is regulation of the private sector.[54] Unregulated markets raise human rights issues of safety, efficacy, cost and equity. However, the NRHM does not appear to have made any significant progress towards appropriate, effective regulation of the private health sector. The Clinical Establishments (Registration and Regulation) Bill (2007), for example, has not yet been enacted, although this is not to suggest that it is an adequate response to the challenge of private health sector regulation.

88. There are some existing accountability mechanisms in relation to the private health sector. Under the Consumer Protection Act (1986), for example, courts may receive claims of medical negligence and award compensation to aggrieved individuals and families. However, existing mechanisms are not remotely adequate.

89. The lack of significant progress towards establishing an appropriate, effective regulatory framework for the private health sector places the Government of India in breach of its right to health responsibilities.

#### **5. Conclusion: the critical role of an independent body**

90. In India, monitoring, accountability and redress in relation to the public and private health sectors is egregiously underdeveloped. One approach to this enormous problem is for the authorities to establish transparent, effective, accessible, autonomous health commissions at the federal and state levels, reporting to their legislatures, to regulate and monitor the private and public health sectors, to ensure that they deliver quality health services for all, including in relation to maternal health. In the meantime, however, urgent steps must be taken to enhance monitoring, accountability and redress in relation to maternal mortality. A few specific, practical, illustrative measures have been identified in these paragraphs.

91. The Special Rapporteur strongly recommends that the Government of India urgently establish an independent body to accelerate progress towards the reduction of maternal mortality and the achievement of this vital component of Millennium Development Goal 5. The authorities must decide the best institutional form for this important independent body. It could report directly to Parliament, the Prime Minister's Office, or both. It could be along the lines of a maternal mortality ombudsman, either part of an existing body, such as the National Human Rights Commission, or a new, self-standing institution. In either case, the body must be properly resourced, transparent, accessible, effective and independent, with appropriate powers. The independent body should not be responsible for the practical delivery of policies and programmes but for galvanizing action and, above all, for ensuring that those in authority properly discharge their responsibilities to reduce maternal mortality. Its duties should include those signalled in the preceding discussion on maternal death reviews and EmOC indicators.

92. Enhancing monitoring, accountability and redress for maternal mortality in the public and private sectors, including public-private partnerships, demands the sustained attention of national, state and local government, international organizations, professional associations, national and state human rights and women's institutions, civil society and community-based organizations, the courts and the media. The maternal mortality ombudsman — or other independent body designated by the Government of India — has a decisive role to play in this critically important process.

### **V. Conclusion**

93. **For a middle-income country of its stature and level of development, the rate of maternal deaths in India is shocking, raising multiple human rights issues.**

94. **In India, some 300 maternal deaths occur for every 100,000 live births, compared to 45 in China, 56 in Sri Lanka, 16 in Chile, 45 in Cuba, 110 in Brazil, 130 in Egypt and 210 in Namibia.[55] A total of 20 per cent of the world's maternal deaths occur in India. More women — about 100,000 yearly — die in India during childbirth or pregnancy than in any other country in the world. In India, a maternal death occurs every five minutes. Crucially, the vast majority of these deaths are preventable. While there are about 300 maternal deaths for every 100,000 live births in India, in some of the country's states, the situation is very much worse. In Uttar Pradesh, for example, there are over 510 — and in Rajasthan**

445 — maternal deaths for every 100,000 live births. Kerala does much better, at 110. Although the rate of maternal deaths remains alarming, it is declining. But, at the present rate, neither India, nor any of its states, will reach their maternal mortality targets for 2015.

95. Why is India's maternal mortality so much worse than the comparators? Why is progress so slow that neither India, nor any of its states, will reach their internationally agreed targets? It is tempting to answer these questions by pointing to a lack of funds. But this would be only partly right. Funding is an issue: according to the Government's NRHM, India's "public spending on health is amongst the lowest in the world".<sup>[56]</sup> The Government is committed to increasing this funding from 0.9 per cent of gross domestic product (GDP) to 2–3 per cent. Of course this commitment is welcome, but 2–3 per cent of GDP remains woefully little.<sup>[57]</sup> Also, there is no clear path to reach anywhere near the 3 per cent target. India has a legally binding international human rights obligation to devote its maximum available resources to the health of its population. Public spending on health that continues to bracket India with "the lowest in the world" is in breach of this international legal obligation.

96. But inadequate funding does not provide a complete explanation for India's startling maternal mortality data. A district collector told the Special Rapporteur that, due to bottlenecks in the system, in the last complete fiscal period only 55 per cent of his health budget was utilized. This is not an isolated case. While these bottlenecks must be removed as a matter of urgency, they suggest that the problem is not entirely a lack of funds. More resources without other changes — some of them identified in this report — are unlikely to help a great deal.

97. So is the problem simply one of bottlenecks that can be addressed by better maternal health policies and plans? Over the years, some of India's maternal mortality policies have been deeply flawed and international organizations have a heavy responsibility for this. From the 1960s, for example, it was a mistake to depend so heavily on traditional birth attendants and to neglect skilled birth attendance. Between 1997 and 2004, the Reproductive Child Health I programme was a major step forward, but the health system was not robust enough to deliver the designated reforms. Today's NRHM is a great improvement that aims "to transform the public health system into an accountable, accessible and affordable system of quality services".<sup>[58]</sup> It has weaknesses but, on the whole, NRHM is an impressive policy document.

98. So, in all these circumstances, why is it that India's maternal mortality has not gone down more over the last two or three decades? First, there is a yawning gulf between India's commendable maternal mortality policies and their urgent, focused, sustained, systematic and effective implementation, reinforced by robust and independent monitoring, accountability and redress. Second, the problem is aggravated by buck-passing. Under the Constitution, India's health services are the responsibility of state Governments. The national Government sets the policy framework and provides financial support for maternal and child health. When the Special Rapporteur was speaking with state and national Governments, each sometimes pointed accusingly at the other. As a matter of international law, the national Government is responsible for ensuring conformity with India's international human rights treaties, including those encompassing the right to health. Nonetheless, state Governments also have international human rights obligations. Third, there are words and actions to the contrary — and this report has been careful to acknowledge many of them — but, for the most part, maternal mortality reduction is still not a priority in India.

99. In 2007, *The New Indian Express* published a powerful editorial entitled "The janani betrayal", arguing that more could, and should, be done for maternal health.<sup>[59]</sup> This editorial was especially striking because maternal mortality rarely attracts public attention in India. With honourable exceptions, the media is silent on the issue. But just imagine the outcry if more than 100,000 Indians were "disappeared" every year by unlawful paramilitaries. Yet when some 100,000 women die each year during childbirth in villages, by the side of roads trying to reach medical help, and in non-functioning health facilities, there is scarcely a flicker of protest. Why the difference? Two uncomfortable underlying reasons have to be placed in the light of day. First, many people still see maternal deaths as natural personal tragedies about which next to nothing can be done. Of course, the data show this is nonsense; there is nothing inevitable about maternal mortality. Second, women have low social status. To be blunt, some see women as expendable. The combination of these factors is deadly, leading to complacency and half-hearted interventions.

100. In conclusion, maternal mortality reduction is not just a way of saving women's lives and restoring India's reputation. It is also a vehicle for establishing an effective health system from which all women, children and men will benefit. In other words, maternal mortality reduction is a way of establishing a critically important social institution: an effective, integrated, responsive health system of good quality and accessible to all.

\*Late submission.

\*\*Paul Hunt ended his mandate as Special Rapporteur on 31 July 2008. His report is circulated as an addendum to the report of his successor, Anand Grover, who took up the mandate on 1 August 2008.

\*\*\*The summary of the present report is circulated in all official languages. The report itself, annexed to the summary, is circulated in the language of submission only.

[1] *A Supplementary Note on the UN Special Rapporteur's Report on Maternal Mortality in India*, available from [www.essex.ac.uk/human\\_rights\\_centre/research/rth/index.aspx](http://www.essex.ac.uk/human_rights_centre/research/rth/index.aspx).

[2] India, "Maternal mortality in India: 1997–2003: trends, causes and risk factors (Sample Registration System)" (Registrar General), p. xv. While the Sample Registration System, *Maternal Mortality in India: 2004–2006*, was published too late for inclusion in this report, it suggests that the estimated number of maternal deaths is falling, but remains surprisingly high. Also see "Counting maternal deaths" in chapter IV below.

- [3] India, "Maternal mortality in India", p. xv.
- [4] Ibid., p. 21.
- [5] Ibid.
- [6] World Health Organization (WHO), *Everybody's Business: Strengthening Health Systems* (Geneva, 2007), p. v.
- [7] See, for example, Millennium Project, *Who's Got the Power? Transforming Health Systems for Women and Children* (London, Task Force on Child Health and Maternal Health, 2005).
- [8] India, "2nd Common Review Mission: Rajasthan under National Rural Health Mission (NRHM)" (Ministry of Health and Family Welfare, 2008), p. 6.
- [9] Ibid., p. 7.
- [10] Ibid., p. 15.
- [11] S. Iyengar, K. Iyengar and V. Gupta, "Maternal health: a case study of Rajasthan", *Journal of Health, Population and Nutrition*, vol. 27, No. 2 (April 2009), p. 279.
- [12] India, "Common Review Mission II: Report of Maharashtra under NRHM" (Ministry of Health and Family Welfare, 2008).
- [13] Here the focus is on the health workforce, so the narrower word "attendants" is used rather than "attendance".
- [14] Iyengar, Iyengar and Gupta, "Maternal health", pp. 278 and 279.
- [15] D. Mavalankar and K.S. Vora, "The changing role of auxiliary nurse midwife in India: Implications for maternal and child health", Working Paper No. 2008-03-01 (Ahmedabad, Indian Institute of Management (IIMA), 2008), p. 16.
- [16] WHO, *World Health Report 2005* (Geneva, 2005), p. 95.
- [17] Iyengar, Iyengar and Gupta, "Maternal health", p. 290.
- [18] India, "National Rural Health Mission", 2005, para. 17. Available from [http://mohfw.nic.in/NRHM/Documents/NRHM\\_Framework\\_Latest.pdf](http://mohfw.nic.in/NRHM/Documents/NRHM_Framework_Latest.pdf)
- [19] This section draws extensively from D. Mavalankar, "Study of technical top management capacity for safe motherhood program in India", 2004. On file with author.
- [20] Mavalankar, "Study of technical top management capacity", p. 18.
- [21] India, *National Rural Health Mission*, para. 1.
- [22] K.S. Vora and others, "Maternal health situation in India: a case study", Working Paper No. 2008-03-02 (Ahmedabad, IIMA, 2008), pp. 8 and 9.
- [23] This section draws extensively from Evans and others, "Where there is no obstetrician – increasing capacity for emergency obstetric care in rural India", *International Journal of Gynecology and Obstetrics*, vol. 107, No. 3 (December 2009).
- [24] Evans and others, "Where there is no obstetrician", last page.
- [25] This section draws extensively from D. Mavalankar and others, "Where there is no anaesthetist – increasing capacity for emergency obstetric care in rural India: An evaluation of a pilot program to train general doctors", *International Journal of Gynecology and Obstetrics*, vol. 107, No. 3 (December 2009).
- [26] India, "Rajasthan State report" (Ministry of Health and Family Welfare, 2009), p. 12.
- [27] India, "2nd Common Review Mission: Rajasthan", pp. 15 and 16.
- [28] Evans and others, "Where there is no obstetrician".
- [29] International Institute for Population Sciences, 2005–2006 National Family Health Survey, Fact Sheet: Rajasthan.
- [30] NFHS-3, "Key indicators for India". Available from [www.nfhsindia.org/pdf/India.pdf](http://www.nfhsindia.org/pdf/India.pdf)
- [31] Iyengar, Iyengar and Gupta, "Maternal health", p. 284.
- [32] D. Mavalankar and others, "Indian public-private partnership for skilled birth attendance", *Lancet*, vol. 371, No. 9613 (February 2008), p. 632.
- [33] Here the focus is on private practitioners working for profit, rather than those working in a not-for-profit situation, for example, in non-governmental organizations.

- [34] Global Health Workforce Alliance, *Scaling up, Saving Lives* (2008), p. 1.
- [35] UNICEF, *Maternal and Perinatal Death Inquiry and Response* (New Delhi, n.d.); Human Rights Watch, *No Tally of the Anguish: Accountability in Maternal Health Care in India* (New York, 2009); Center for Reproductive Rights, *Maternal Mortality in India* (New York, 2008).
- [36] See, for example, N.B. Sarojini and others, *Women's Right to Health* (New Delhi, National Human Rights Commission, 2006).
- [37] India, "2nd Common Review Mission: Rajasthan", p. 21.
- [38] Hill and others, "Estimates of maternal mortality worldwide between 1990 and 2005: an assessment of available data", *Lancet*, vol. 370, No. 9595 (13 October 2007), p. 1311.
- [39] Vora and others, "Maternal health situation in India", p. 22.
- [40] *Ibid.*, p. 7.
- [41] T. Puwar, P. Raman and D. Mavalankar, "Situational analysis of reporting and recording of maternal deaths in Gandhinagar district, GujaratState", Working Paper No. 2009-06-01 (Ahmedabad, IIMA, 2009), p. 7.
- [42] Hill and others, "Estimates of maternal mortality", p. 1315.
- [43] Iyengar and others, "Pregnancy-related deaths in rural Rajasthan, India: exploring causes, context, and care-seeking through verbal autopsy", *Journal of Health and Popular Nutrition*, vol. 27, No. 2 (April 2009), p. 295.
- [44] Puwar, Raman and Mavalankar, "Situational analysis", p. 17.
- [45] *Ibid.*, p. 29.
- [46] See, for example, Puwar, Raman and Mavalankar, "Situational analysis", and Human Rights Watch, *No Tally*.
- [47] See WHO, *Beyond the Numbers: Reviewing Maternal Deaths and Complications to Make Pregnancy Safer* (Geneva, 2004).
- [48] India, *National Rural Health Mission*, p. 67.
- [49] Puwar, Raman and Mavalankar, "Situational analysis", p. 24.
- [50] WHO, *Beyond the Numbers*, p. 2.
- [51] Iyengar, Iyengar and Gupta, "Maternal health", p. 281.
- [52] *Ibid.*
- [53] India, *National Rural Health Mission*, para. 2.
- [54] *Ibid.*, para. 3.
- [55] WHO and others, *Maternal Mortality in 2005* (Geneva, 2007), pp. 23–26.
- [56] India, *National Rural Health Mission*, para. 2.
- [57] Compare public expenditure on health as percentage of GDP: Brazil, 4.8 per cent; Cuba, 5.5 per cent; Namibia, 4.7 per cent; Chile, 2.9 per cent. Figures from United Nations Development Programme, *Human Development Report 2007–2008* (New York, 2007), table 6.
- [58] India, *National Rural Health Mission*, 2005, para. 2.
- [59] 7 December 2007.