

# Maternal Mortality in India

Aspirations, Reality and  
Evidence of Change

# Our Aspirations

- MMR reduction by 200-300 by 1990 and below 200 by the year 2000 – Health Policy Statement 1983
- Reduce MMR to below 100 per 100,000 live birth by 2010 – National Socio Demographic Goals – NPP 2000; NHP 2002
- Reduce Maternal Mortality Ratio(MMR) to 2 per 1000 live births by 2007 and 1 per 1000 live births by 2012 – Monitorable targets of 10<sup>th</sup> Five Year Plan ( 2002- 07)
- MMR – 150 per 100,000 live birth – RCH II ( 2004-09)
- Maternal Mortality Ratio reduced to 100/100,000 by 2012 – NRHM
- 109 maternal deaths per 100,000 live births by 2015 – India MDG target
- Reduction of MMR to ¼ of 1990 levels by 2015 with reduction of in-country disparities – ICPD Target

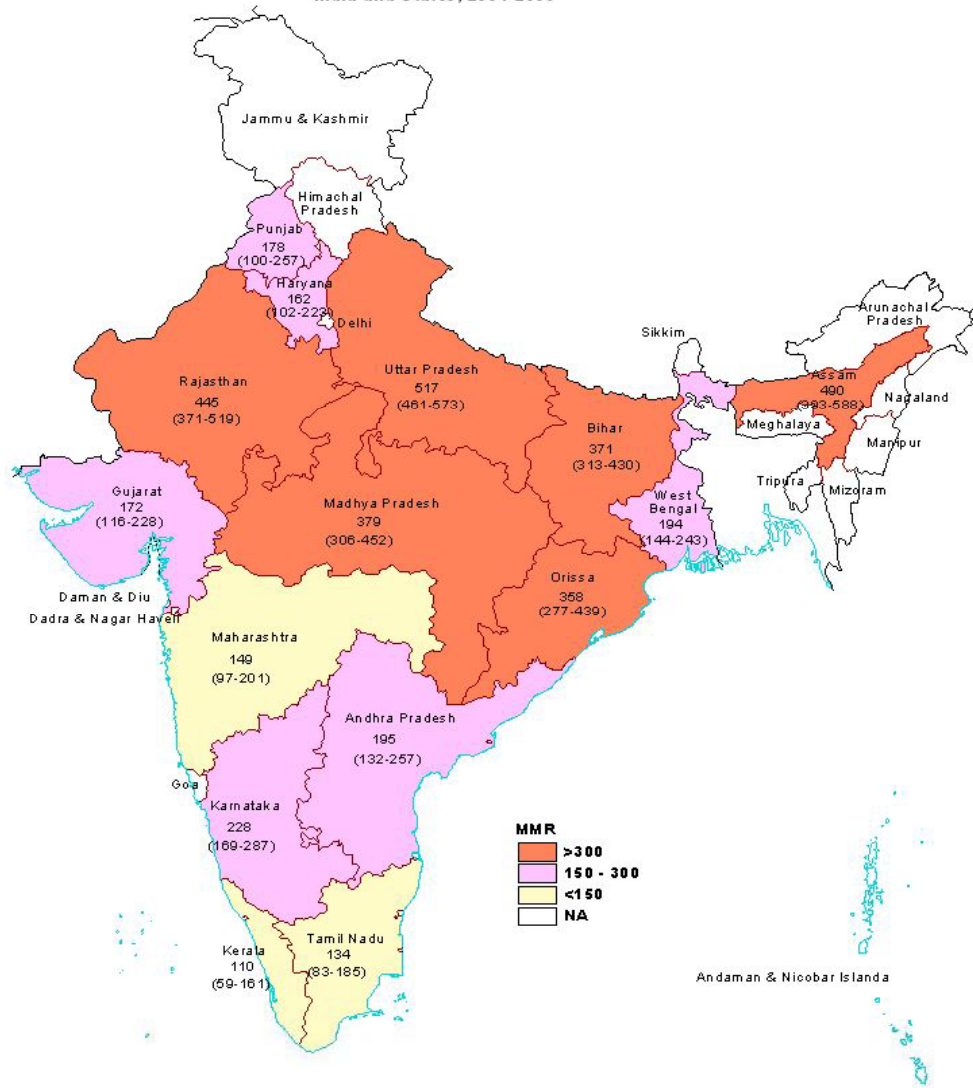
# The Reality

- 301 per 100,000 live birth – SRS 2003
- Every 5 minutes, one woman somewhere in India dies from complications of childbirth.
- 15 per cent of all pregnant women in India develop life-threatening complications.
- 65 per cent deliveries occur at home.
- 60 per cent of all maternal deaths occur after delivery but only 1 in 6 women receives postnatal care.

(UNICEF, MAPEDIR 2008)

- Over 2.5 crore live births take place in the country; over 30 lakh mothers face life threatening complications and nearly a lakh among them die (various sources)
- The average lifetime risk of a woman in a state like UP of dying from complications related to pregnancy or childbirth is more than 200 times greater than for a woman living in an industrialized country (computed)

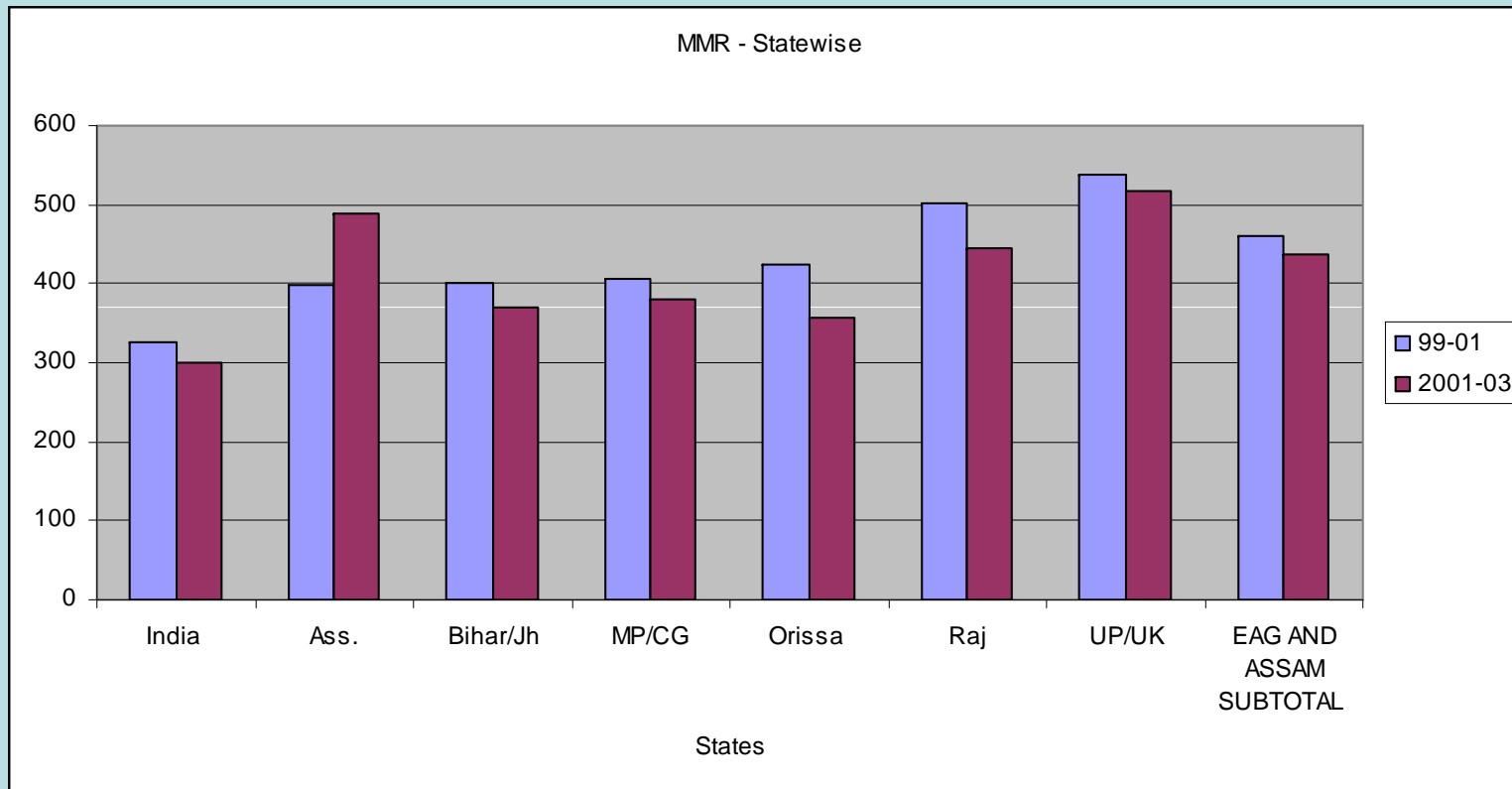
Chart 2: Maternal Mortality Ratio (MMR) along with 95% confidence interval, India and States, 2001-2003



Most of these women die in the states of

- Uttar Pradesh
- Bihar
- Madhya Pradesh
- Orissa
- Rajasthan
- Assam

# The situation in these states

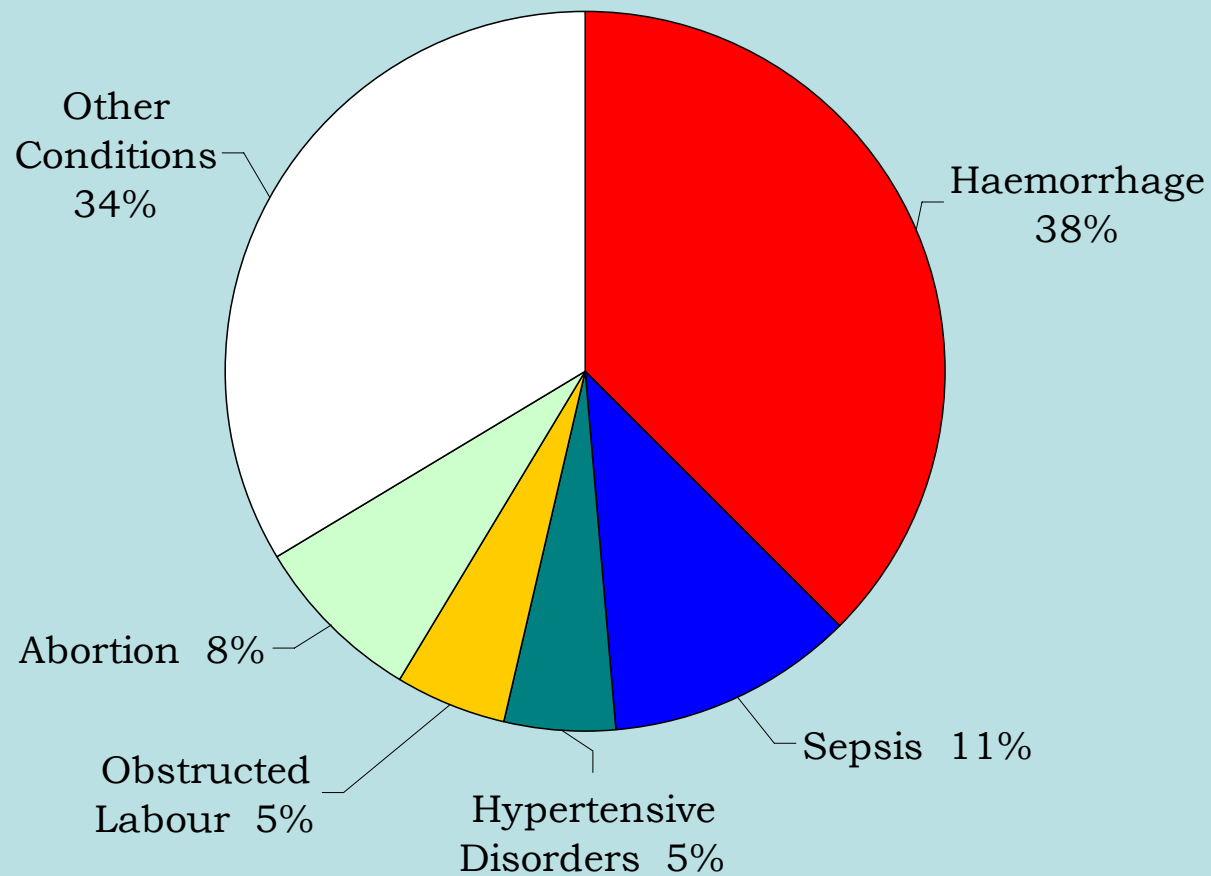


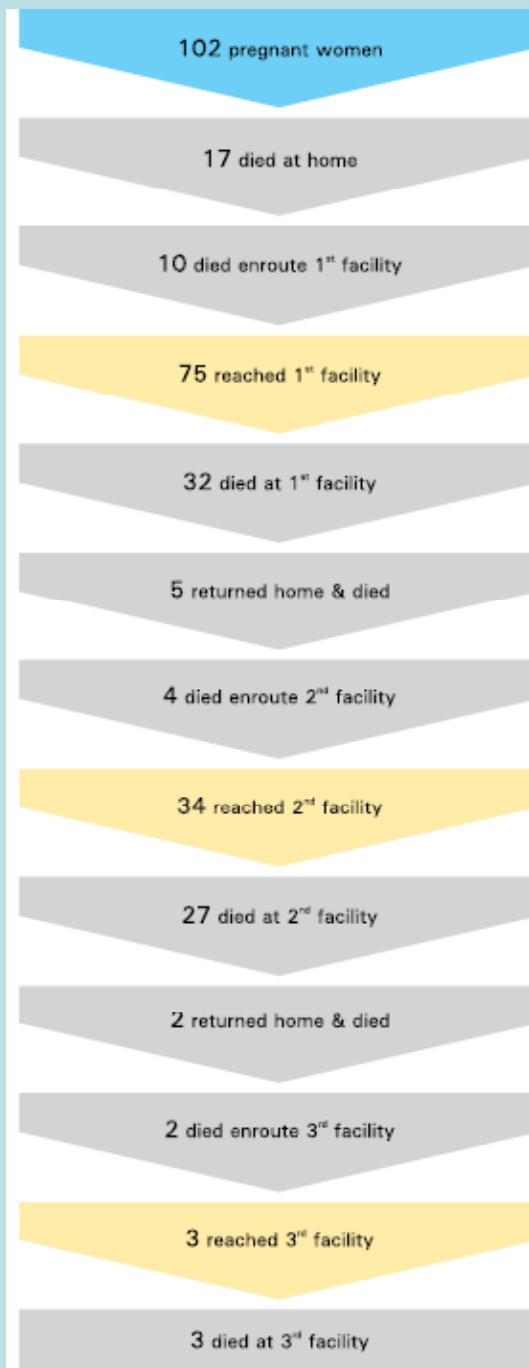
|              | 99-01      | 2001-03    |
|--------------|------------|------------|
| <b>India</b> | <b>327</b> | <b>301</b> |
| Ass.         | 398        | 490        |
| Bihar/Jh     | 400        | 371        |
| MP/CG        | 407        | 379        |

|           | 99-01      | 2001-03    |
|-----------|------------|------------|
| Orissa    | 424        | 358        |
| Raj       | 501        | 445        |
| UP/UK     | 539        | 517        |
| EAG/ASSAM | <b>461</b> | <b>438</b> |

# Why do women die?

**Chart 3: Causes of Maternal Death in India**





# Where do the women die?

- 17 at home
- 75 reached a facility and then died
- 16 died on the way to a facility
- 7 returned home and died
- 62 died at a facility

*MAPEDIR Purulia study*

# When do women die?

- 27 % women died during labour and before delivery of placenta; 27% within less than 24 hours of delivery – MAPEDIR
- 21% died during pregnancy – MAPEDIR
- 24% died in the ante-partum; 48% died in the intra-partum(<48hours) and 27% died in the post partum ( <42days) – (Jharkhand study; Barnet S et al 2008)
- More than 60 percent of maternal deaths occur in the postpartum period ( review of 9 studies since 1985 – Family Health International 1997)

# Policy Prescriptions - NRHM

- The Goal of the Mission is to improve the availability of and access to quality health care by people, especially .....

## ***NRHM goals –***

- Reduction in Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR)
- Universal access to public health services such as Women's health, child health, ..... and nutrition

## ***NRHM Outcomes –***

- Improved facilities for institutional delivery through provision of referral, transport, escort and improved hospital care
- Janani Suraksha Yojana (JSY) for the Below Poverty Line families

***Concrete Service Guarantees*** – Skilled attendance at all births, Emergency Obstetric Care, Basic Neonatal care for new born....

# Strategic Framework - RCHII

## ***Short term***

- Operationalise 24 hour delivery facilities
- Promote trained attendance at delivery (ANM, Community Skilled Birth Attendants) and clean delivery kits

## ***Medium term***

- Operationalize all facilities up to the PHC to provide 24 hours delivery
- Increase institutional deliveries to 80% by the end of the fifth year
- Increase delivery through health professionals to 80% and trained attendance at delivery to 100%
- Quality of assured services increased

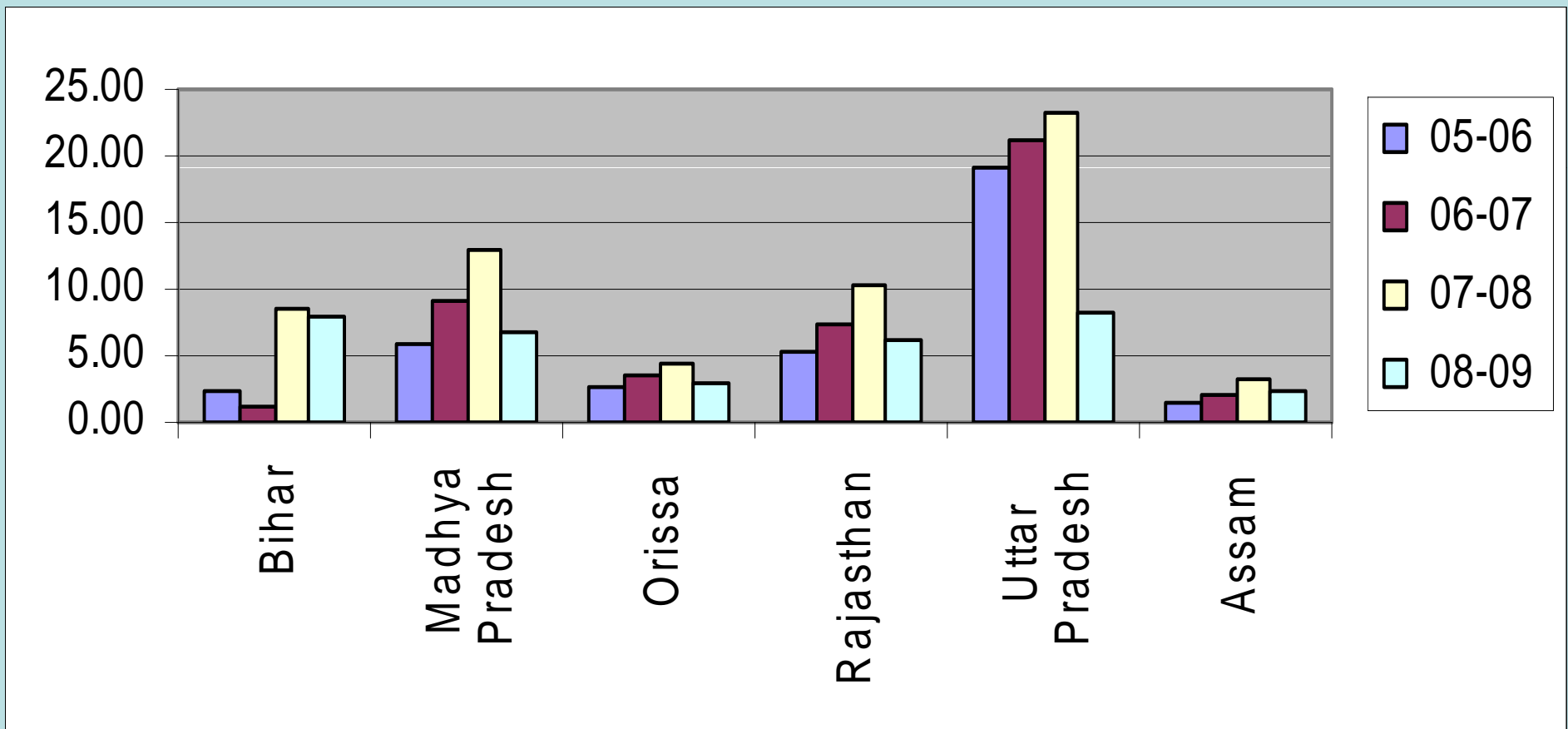
# Summary of Strategies

- Increase Institutional Delivery
- JSY cash incentives for institutional delivery
- Skilled attendance all births
- Improve facilities – 24delivery, EmOC
- Quality assured services ( Quality of care)
- Universal access to public health services with special focus to poor and rural

# Evidence of Change

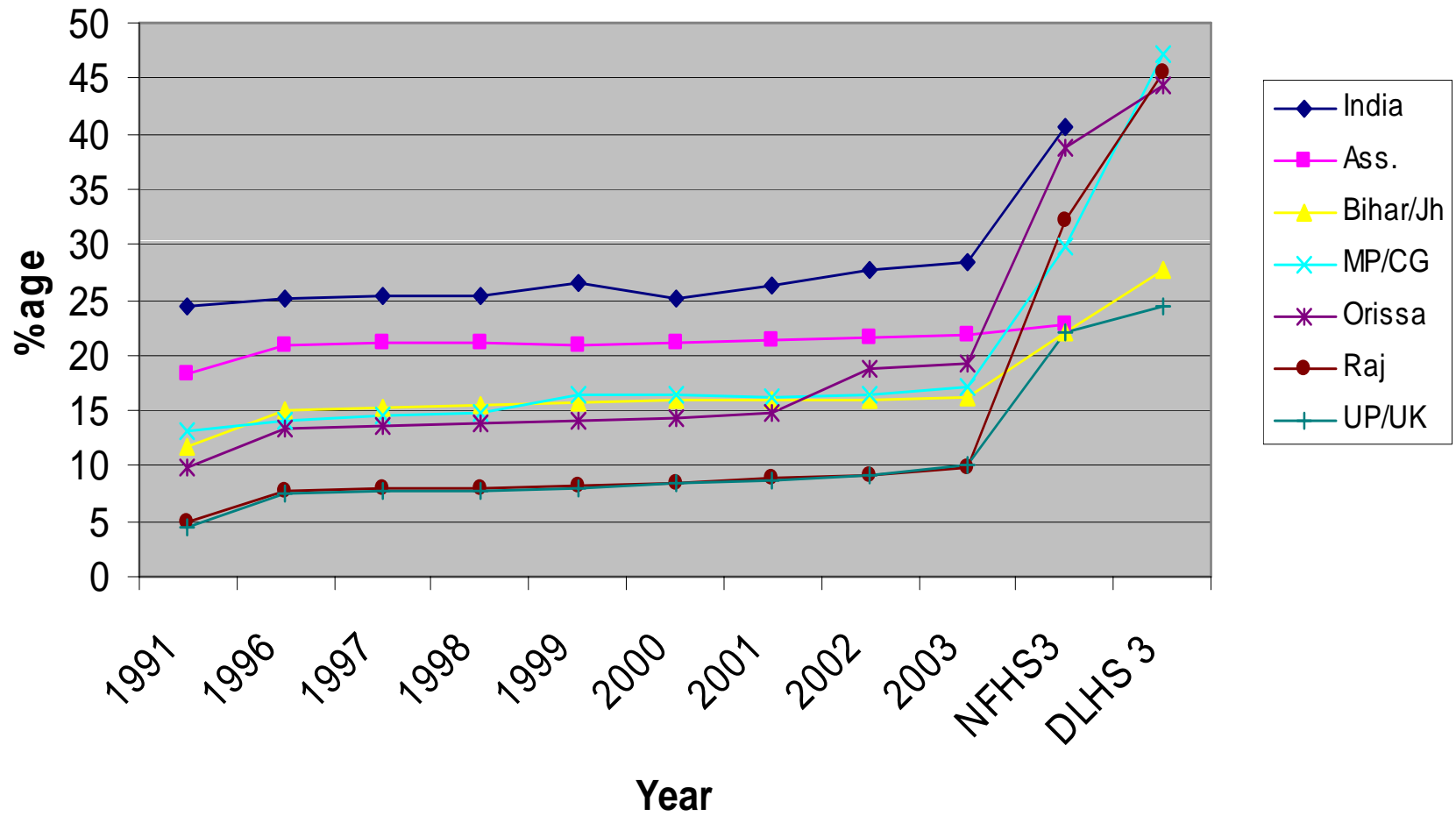
- NRHM – MIS – 31<sup>st</sup> December 2008
- Common Review Mission 2 report
- Joint Review Mission Reports
- NFHS 3 and DLHS 3 data
- State level - Assessment of ASHA and JSY reports
- Community Monitoring data 2008
- Review limited to states of UP, Bihar, MP, Rajasthan, Orissa and Assam

# Institutional Delivery - numbers

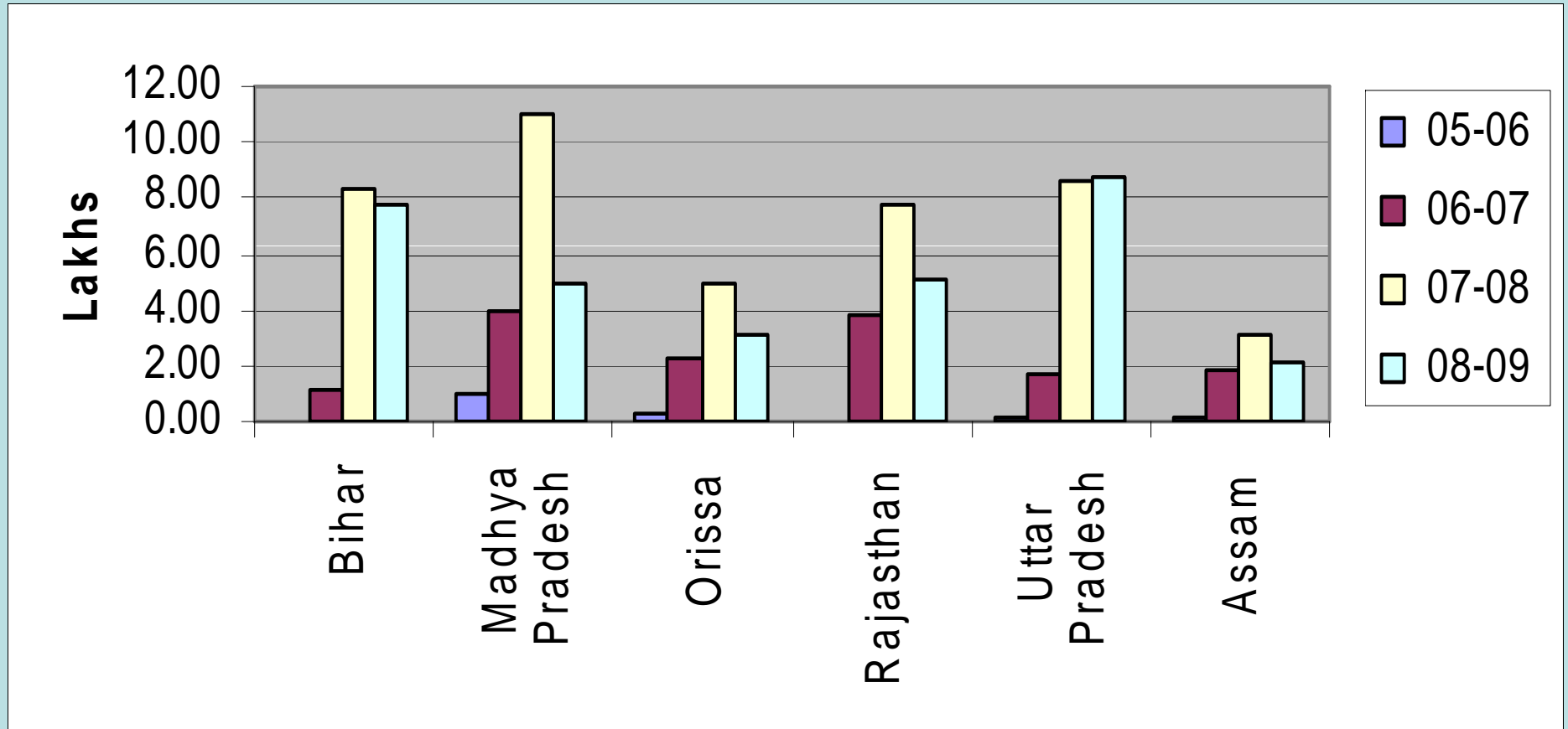


08-09 upto 31<sup>st</sup> December 08

# Institutional Delivery



# Janani Suraksha Yojana



Total of 92 lakh beneficiaries in these 6 states costing Rs 1840,00,00,000  
as incentive to mother and ASHA

08-09 upto 31st December 08

# JSY experiences – 2007

## UNFPA supported review

|                                     | MP - 242 | Orissa - 245 | Rajasthan - 248 |
|-------------------------------------|----------|--------------|-----------------|
| Proactive registration under JSY    | 26       | 60           | 50              |
| Proactive Antenatal care            | 21       | 51           | 60              |
| Adequate Micro-birth planning       | 13       | 54           | 40              |
| Prepared for transportation         | 16       | 58           | 23              |
| Institutional delivery              | 99       | 82           | 70              |
| Paid money for delivery in centre   | 71       | 76           | 64              |
| Money received at one go            | 93       | All          | 100             |
| Difficulties faced in getting money | 16       | 5            | 4               |

No data about post natal care has been provided in these studies

# Skilled Birth Attendants

| State     | Sk pers at home DLHS 3 | Sk pers at home DLHS 2 |
|-----------|------------------------|------------------------|
| Bihar     | 5.9%                   | 7.9%                   |
| MP        | 5.7%                   | 11.8%                  |
| Orissa    | 12.2%                  | 14.3%                  |
| Rajasthan | 13.4%                  | 20%                    |
| UP        | 7.4%                   | 8.3%                   |

NO EVIDENCE OF SBA TRAINING WAS AVAILABLE FROM NRHM-MIS

# SBA – Opinion from Reviews

- The rate of skilled birth assistance training is not at pace with the expansion of institutional delivery and in the absence of the expanded set of skills that SBA training provides the impact on maternal mortality would be low – CRM 1 2007
- Focus on SBA training. ANMs could also be provided hands on training at the BEmONC and CEmONC centres where sufficient delivery load is there, since many are not confident of conducting even normal deliveries -JRM 3 MP 2007

# Improvement in Facilities- PHC status - 31/12/08

|  | Bihar | MP   | Orissa | Rajas-<br>than | UP   | Assam |
|--|-------|------|--------|----------------|------|-------|
| <b>No Of PHC -<br/>RHS 2007</b>                  | 1648  | 1149 | 1279   | 1499           | 3660 | 610   |
| <b>No Of PHC -<br/>24 x7</b>                     | 533   | 384  | 105    | 187            | 615  | 297   |
| <b>No of PHC<br/>with 3<br/>Staff<br/>Nurses</b> | 105   | 0    | 105    | 1503           | 325  | 149   |

# Conditions for Safe Delivery

## DLHS3

| Conditions for safe delivery                  | Bihar | MP   | Ori  | Raj  | UP   |
|---|-------|------|------|------|------|
| SC with additional ANM                        | 27.6  | 8.2  | 51.5 | 21.8 | 3.3  |
| ANM living in SC                              | 20.3  | 48.5 | 43.3 | 55.1 | 37.2 |
| PHCs functioning on 24 hours basis            | 64.5  | 73   | 49.1 | 56.9 | 45.5 |
| PHCs having new born care services            | 9     | 23   | 8.7  | 13.6 | 11   |
| PHCs having referral services                 | 44    | 49   | 18   | 18   | 17   |
| PHCs conducted at least 10 del last one month | 20    | 52   | 12   | 24   | 19.4 |

# CHC status -31/12/2008

|   | Bihar | MP  | Ori | Raj | U P | Assa<br>m |
|---|-------|-----|-----|-----|-----|-----------|
| <b>No Of CHC - RHS 2007</b>                     | 70    | 270 | 231 | 337 | 386 | 100       |
| <b>No Of CHC - 24 x7</b>                        | 70    | 173 | 73  | 337 | 55  | 100       |
| <b>Selected for<br/>upgradation to<br/>IPHS</b> | 66    | 96  | 231 | 128 | 100 | 103       |
| <b>Physical upgradation<br/>completed</b>       |       | 0   | 4   | 44  | 50  | 79        |
| <b>Working as FRUs</b>                          | 27    | 12  |     | 44  | 23  | 33        |

# Conditions for EmOC – DLHS3

|   | Bihar | MP   | Ori  | Raj  | UP   |
|---|-------|------|------|------|------|
| CHCs having Ob/Gyn                      | 43.9  | 20.8 | 88.2 | 31.5 | 29.9 |
| CHCs having functional OT               | 86.4  | 70.7 | 59.4 | 60.3 | 88.5 |
| CHCs designated as FRUs                 | 87.9  | 61.4 | 53.7 | 52.7 | 55.8 |
| CHCs offering caesarean section         | 13.6  | 8.1  | 8.3  | 9.6  | 3.2  |
| CHCs having 24*7 new born care services | 63.6  | 52.9 | 28.3 | 46.5 | 40.1 |
| CHCs having blood storage facility      | 0     | 3.9  | 8.3  | 7.9  | 0.7  |

Of more concern is that most CHCs visited are still functioning at the level of PHCs, unable to make the transition to regular full occupancy in patient care and a wide range of specialist services. CRM 1 (2007)

# QoC CRM 1 ( 2007) concern

- .... major cross state finding is that the ability of the system to deliver quality of care has been limited and at its current levels of efficacy may not be as yet adequate to make a dent on the issue of maternal mortality.

# QoC – CRM 2 (2008) concerns

- **Overall** - *Where the primary level facilities are not geared up, the deliveries are all reaching the secondary level facilities .... which face severe over-crowding, shortage of beds and therefore inability to keep the mothers for 48 hours post-partum.*
- **UP** - *Nursing cadre shortages hampers quality of care. Women not staying 48 hours after delivery. While cleanliness and basic infrastructure improvements have improved the quality of services, quality of care requires far greater thrust on nursing services.*

- **Bihar** - *Over 100% Bed occupancy in District Hospitals. Lack of nurses and mid wives hampers quality of care. .. Standards of cleanliness would require substantial improvement.*
- **Rajasthan** - *Waste segregation and facility level disposal are being done at most institutions; pits were found to be constructed and in use; bio medial waste was being brought back from outreach sessions.*
- **Assam** - *Need for further improvement of quality and range of services. Wards were patient friendly with clean linen, sufficient lighting and clean toilets. Segregation of waste with deep burial.*

# Quality of Care contd.

## From JRM 3 (2007) about UP

- The labor rooms in the 24X7 PHCs do not have adequate infrastructure. There is lack of clean toilet, running water, receiving station, etc.;
- A major area of concern is seemingly total lack of infection prevention and waste management. No segregation of waste was seen, poor storage and disposal of sharps and placenta and lack of mechanism for disposal at all levels;

# Community Experiences- CM 08

## **Rajasthan – 144 villages**

|                            | <b>Good</b> | <b>Average</b> | <b>Poor</b>  |
|----------------------------|-------------|----------------|--------------|
| Maternal Health Guarantees | <b>7.64</b> | <b>34.72</b>   | <b>57.64</b> |
| Janani Suraksha Yojna      | <b>2.08</b> | <b>29.17</b>   | <b>68.75</b> |
| Quality of Care            | <b>6.25</b> | <b>16.67</b>   | <b>77.08</b> |

## **Orissa – 190 villages**

|                            |              |              |              |
|----------------------------|--------------|--------------|--------------|
| Maternal Health Guarantees | <b>55.79</b> | <b>33.16</b> | <b>11.05</b> |
| Janani Suraksha Yojna      | <b>33.68</b> | <b>30.00</b> | <b>36.32</b> |
| Quality of Care            | <b>11.05</b> | <b>15.79</b> | <b>73.16</b> |

## **Madhya Pradesh- 220villages**

|                            |              |              |              |
|----------------------------|--------------|--------------|--------------|
| Maternal Health Guarantees | <b>26.36</b> | <b>33.64</b> | <b>40.00</b> |
| Janani Suraksha Yojna      | <b>21.82</b> | <b>25.45</b> | <b>52.73</b> |
| Quality of Care            | <b>17.27</b> | <b>27.73</b> | <b>55.00</b> |

## Pregnancy

Ante natal care is not given priority

Mostly ignored

Safe abortion services not policy priority

## Labour and Delivery

High Policy priority

Increased institutional delivery

Crowded hospitals

ANM – SBA skills low

Inadequately prepared facilities esp. EmOC

## Post partum period > 48 hours

Not considered a policy priority

Ignored

## 48 hours post natal period

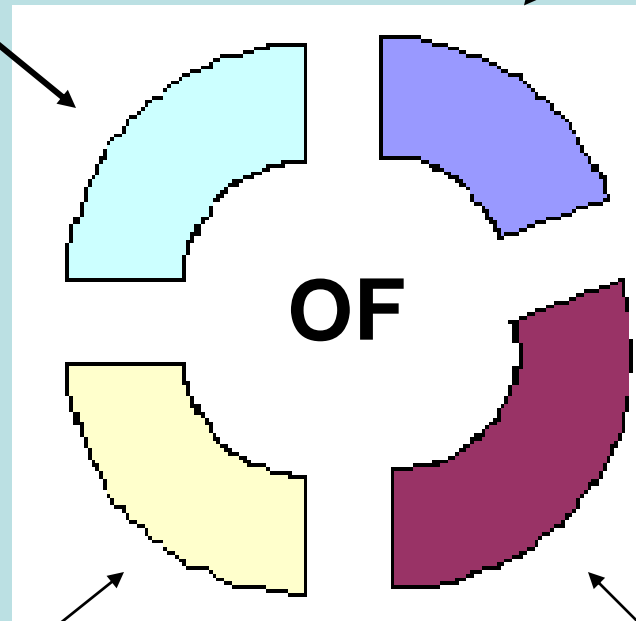
No compulsion for 2 day stay

Early discharge

Poor Quality of care

Poor Infection prevention

# SUMMARY



# CHANGES