

# Improving newborn survival *in India*



## Status of newborns

### FACTS

#### DEMOGRAPHICS, INDIA

Total births 26 million (2.6 crore) (World Rank No. 1)  
 Neonatal deaths 0.94 million (9.4 lakh) (World Rank No. 1)

Crude birth rate  
 Mean age at effective marriage for females

#### Total fertility rate by level of education of the mother

- Illiterate
- Literate

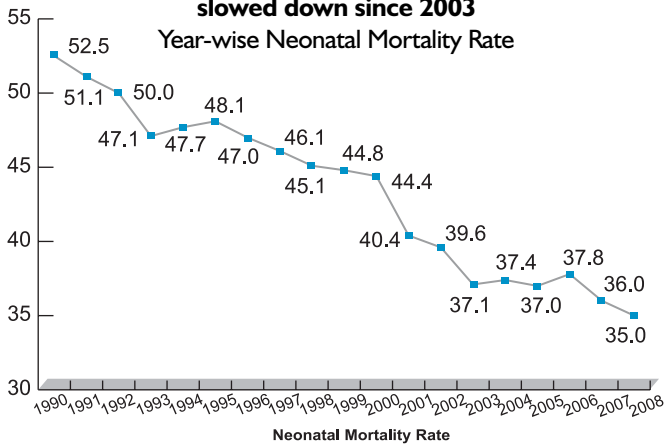
Percentage of deaths of less than one week to total infant deaths  
 Infant Mortality Rate\*  
 Neonatal Mortality Rate (0–28 days)  
 Early Neonatal Mortality Rate (0–7 days)  
 Late Neonatal Mortality Rate (7–28 days)  
 Post Neonatal Mortality Rate (28 days – 1 year)  
 Perinatal Mortality Rate

	Total	Rural	Urban
Crude birth rate	22.8	24.4	18.5
Mean age at effective marriage for females	20.7	20.2	22.1
Total fertility rate by level of education of the mother			
■ Illiterate	4.0	4.1	3.1
■ Literate	2.4	2.6	2.0
Percentage of deaths of less than one week to total infant deaths	40.9	42.2	31.4
Infant Mortality Rate*	53.0	58.0	36.0
Neonatal Mortality Rate (0–28 days)	36.0	40.0	22.0
Early Neonatal Mortality Rate (0–7 days)	28.0	32.0	16.0
Late Neonatal Mortality Rate (7–28 days)	8.0	8.0	6.0
Post Neonatal Mortality Rate (28 days – 1 year)	19.0	20.0	16.0
Perinatal Mortality Rate	37.0	41.0	24.0

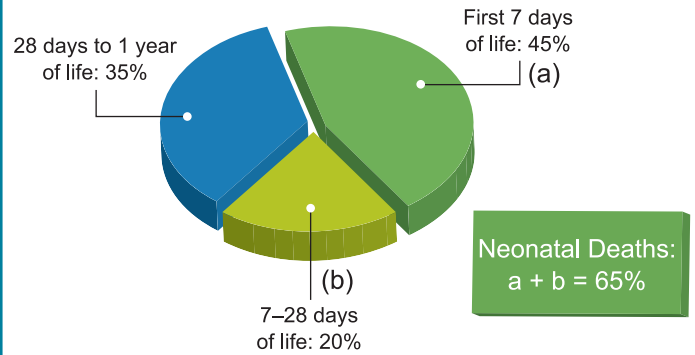
Source: Census 2001 and SRS Statistical Report 2008  
 \* SRS - 2009

# SITUATION ANALYSIS

## Reduction in Neonatal Mortality Rate in India has slowed down since 2003

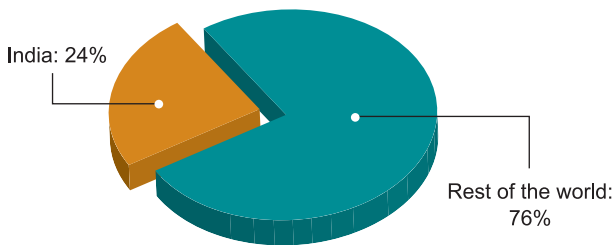


## Most infants die in India during the neonatal period (first 28 days of life)



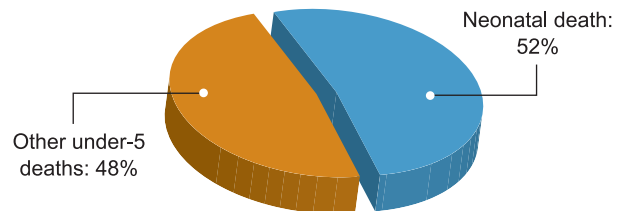
## India contributes about a quarter of global neonatal deaths

More than 100 neonates die every hour in India



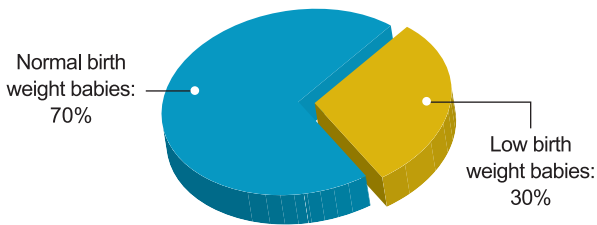
## Neonatal death forms a large part of all under-5 deaths

Under-5 mortality cannot be reduced unless issues of neonatal mortality are addressed

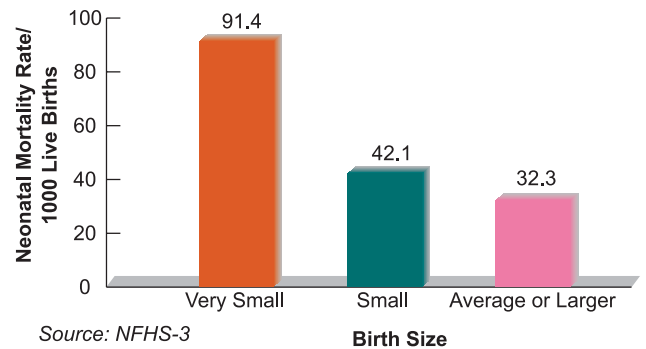


## More than 8.1 million newborns of India have low birth weight (less than 2.5 kg)

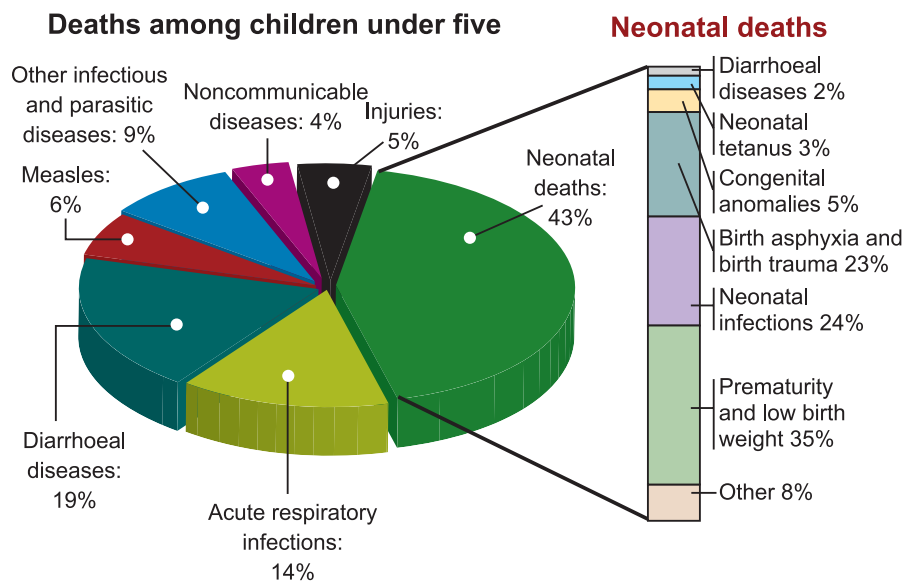
They have high chances of dying within the first 28 days of life



## Neonatal Mortality Rate is higher among very-small-sized babies



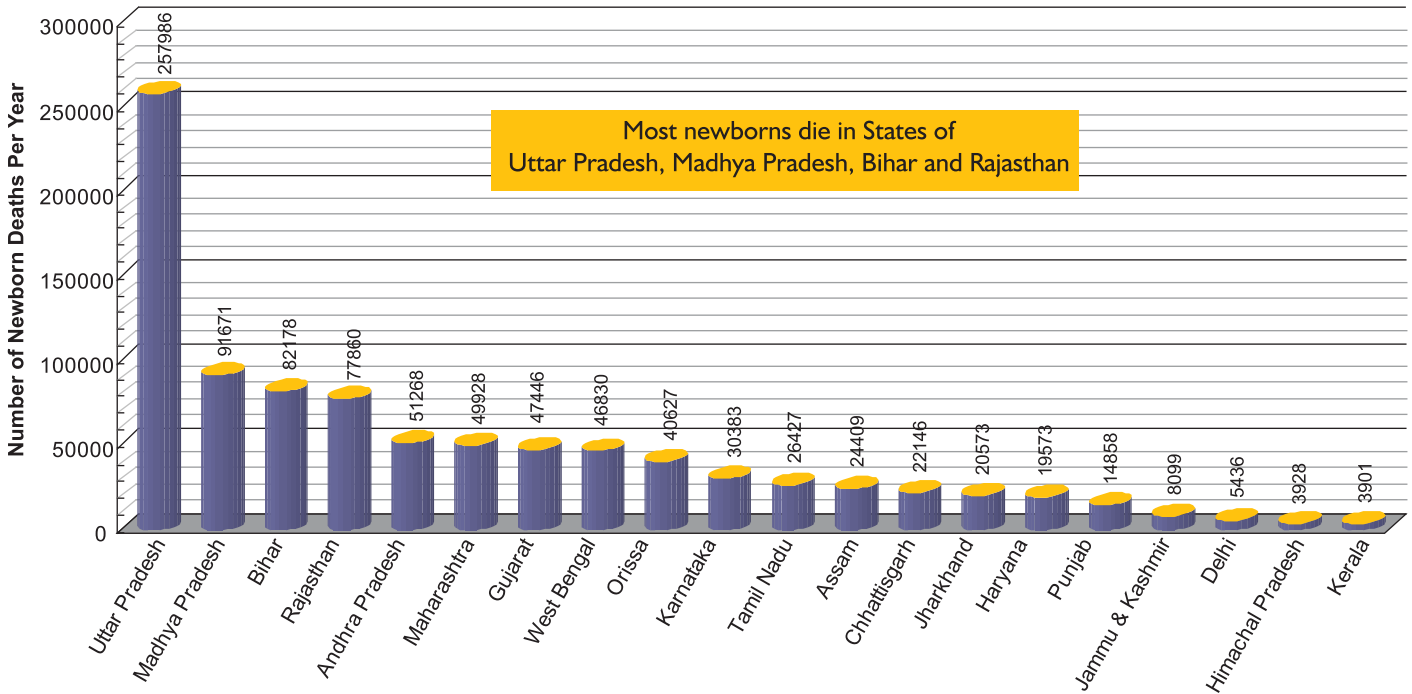
# CAUSES OF NEONATAL DEATHS IN SOUTHEAST ASIA REGION



Source: WHO. "The Global Burden of Disease: 2004 [update (2008)]"

# WHERE DO NEWBORNS DIE

**Burden of Newborn Deaths by States (2007)**

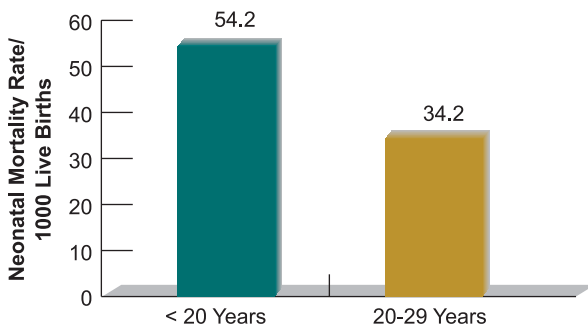


Source: SRS Statistical Report 2007

# FACTORS ASSOCIATED WITH NEONATAL DEATHS

## Neonatal death is directly related to mother's age at birth

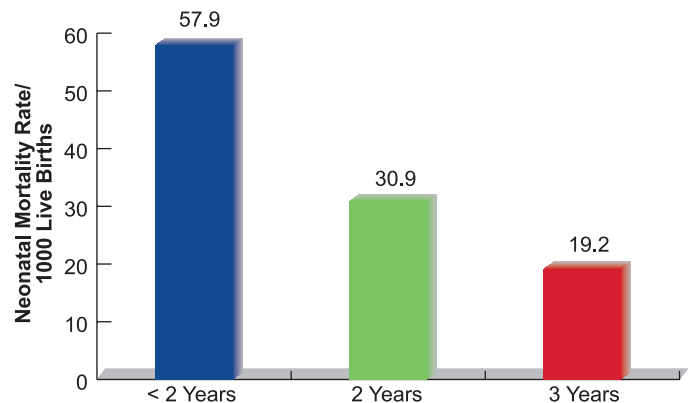
(Lower the age, higher the risk)



Source: NFHS-3

Mother's Age at Birth

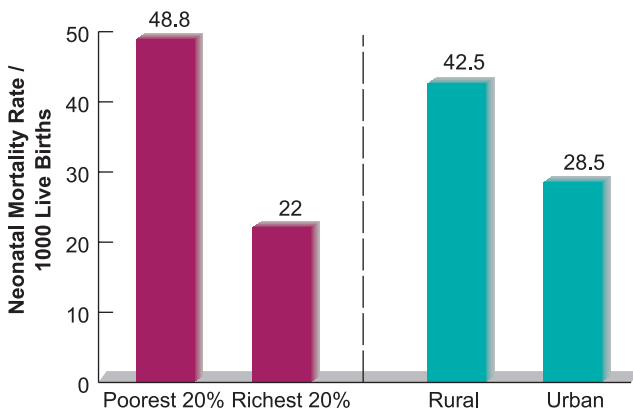
## Neonatal death is directly related to birth interval



Source: NFHS-3

Birth Interval

## Neonatal death is 122% higher among the poorest population and 49% higher in rural population



Source: NFHS-3

## MAJOR FACTORS RESPONSIBLE FOR HIGH NEONATAL MORTALITY IN INDIA

- Poor nutrition and anemia among adolescent girls and women
- Low coverage and quality of antenatal and postnatal care
- Young age of mother at conception and pregnancy (<20 years age)
- Close spacing of births
- High proportion of unsupervised home deliveries and poor quality of institutional deliveries
- High proportion of low birth weight of newborns
- Delayed initiation of breast feeding
- Not maintaining adequate warmth for the newborns
- Delay in seeking health care for sick newborns



## SOLUTION

### WHAT CAN REDUCE NEONATAL DEATHS

Intervention	How it benefits	Potential impact (%)
Tetanus Toxoid injection during pregnancy	Prevents tetanus in newborn	33–58
Antibiotics for premature rupture of membrane	Reduces chances of infection in newborn	32
Corticosteroid treatment for preterm labour	Matures lungs of newborn	40
Partograph use	Management of delivery	40
Clean delivery	Reduces chances of infection in newborn	58–78
Resuscitation of newborn	Asphyxia management	6–42
Breastfeeding	Multiple benefits	55–87
Warmth to newborn	Hypothermia prevention	1.8–42
Community-based pneumonia management	Treatment of pneumonia	27

Adapted from Neonatal Survival Series 2: Evidence-based, cost-effective interventions: how many newborn babies can we save? Lancet 2005; 365: 977–88

### STRATEGIC INTERVENTIONS MISSING OR INADEQUATELY IMPLEMENTED IN INDIA

- Appropriate care for newborns in homes, at primary health facilities and referral centres
- Availability of universal resuscitation for newborns
- Skilled care during pregnancy and at child birth
- Partograph for management of labour
- Corticosteroid for pretmature labour
- Antibiotics for premature rupture of membranes
- Intermittent preventive treatment (IPT) for malaria during pregnancy
- Delaying first pregnancy to 20 years and above and to promote an interval of at least 2 years before the next pregnancy

#### For more information:

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