



Neonatal Resuscitation Program

First Golden Minute

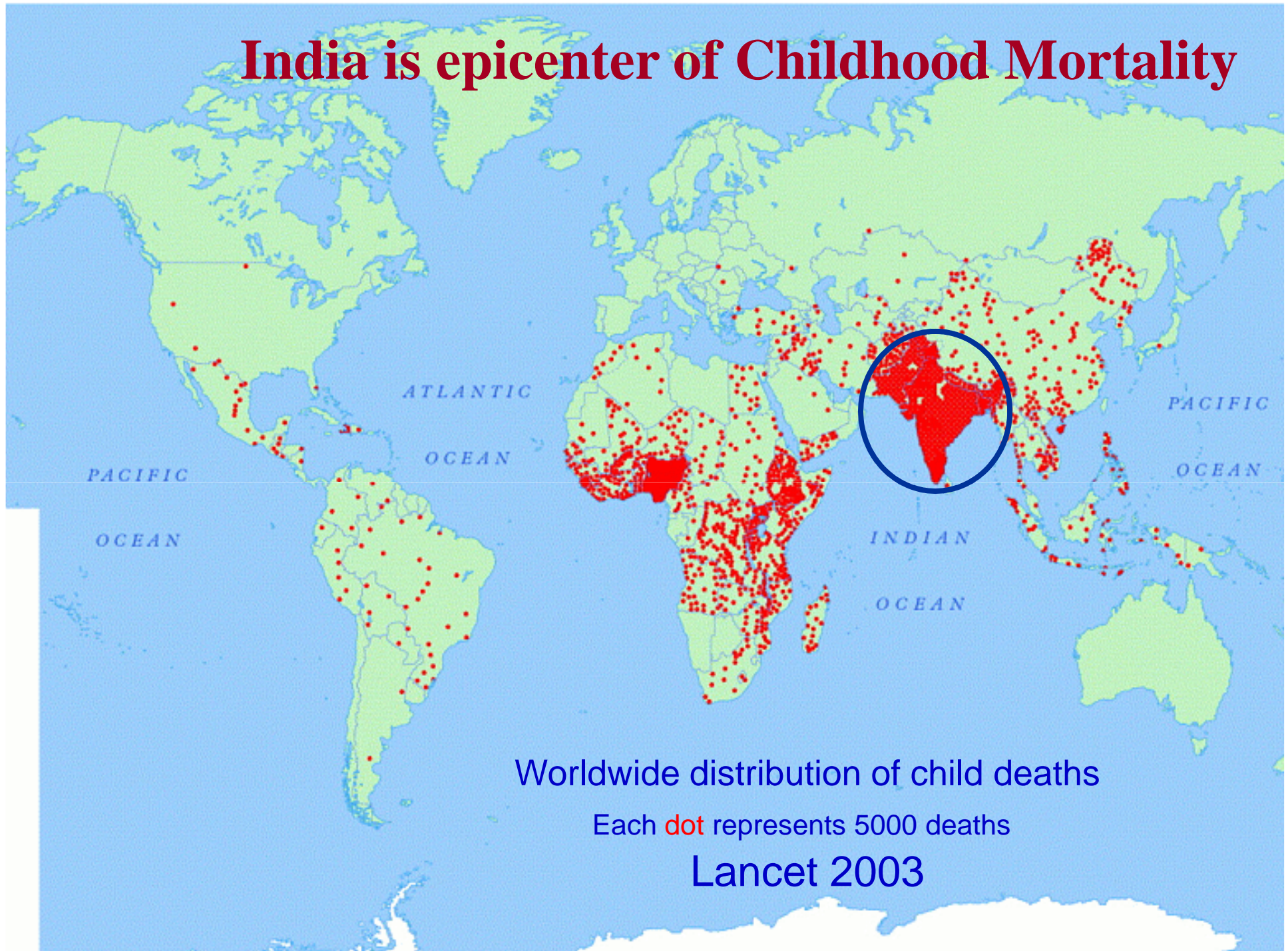
IAP: Indian Academy of Pediatrics

- 18,000 members all over the country
- 28 States branches,
- 282 District branches
- 30 Subspecialty Chapters
- 20 Committees & Groups

Our Mission Statement !!

-improvement of the health and well being of all children.....
-strive for the achievement of the optimum growth, development and health in the physical, emotional, mental, social and spiritual realms of all children irrespective of diversities of their backgrounds.

India is epicenter of Childhood Mortality



Worldwide distribution of child deaths

Each dot represents 5000 deaths

Lancet 2003

5,700 infants die every day

India child health report poor, record worse than least developed countries

Chetan Chauhan
New Delhi, January 22

INDIA LOSES 5,753 children below five years everyday. That contributes to 21 per cent of total deaths in the world, said a UN report on children, released on Tuesday.

Terming the figures — based on 2006 data — scary, UNICEF representative in India Dr Gianni Murzi, said the country is caught in a paradox between poor child survival rate and 9 per cent economic growth. "Time is full of promise for the Indian child if all unite to fight to this battle," he said.

The UNICEF's State of World's Children Report 2008 said about 70 per cent of these children die within an hour of birth; another 30 per cent within 28 days. Pneumonia kills most children in India — about 2 million — followed by diarrhoea. Of those who survive, about 46 per cent are malnourished.

The rate has improved by just one per cent in a decade but is still worse than the least developed countries.

Government officials did not have much to say on our poor record except that there is no shortage of funds for children.

"Everyone, from the Prime Minister downwards, are worried," said Dr M.K. Bhan, secretary, Department of Science and

Technology.

India comes in at 49 among 191 nations on the under-five-mortality rate. Sierra Leone tops the ranks with maximum deaths and Sweden is at the bottom with least.

India's record is even worse than its least developed neighbours — Bangladesh and Nepal rank 55 and 63 respectively. India is better only than Pakistan, which has been ranked 42.

South Asia as a whole is slightly better than West and Central Africa but is lagging behind all other regions.

UNICEF's executive director Ann M. Veneman said since 1990 India has reduced its under-five child mortality rate by 34 per cent while Bangladesh and Nepal improved by over 50 per cent. Even Ethiopia achieved 40

per cent reduction target, she said. With the poor record on child health, India is now a crucial impediment in achieving global millennium development goals (MDGs) by 2015.

"If the world's wants to meet its MDGs, India will have to make dramatic improvements in its children's health," said Murzi.

Lovleen Kacker, joint secretary in the Women and Child Development Ministry, said there was no resource crunch. "Already the government has allocated over Rs 10,000 crores in the 11th plan to take care of child nutrition."

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High mortality, low nourishment

Data on how the world fared in 2006 on child health is out and the figures for India are scary. The UN report says we contributed 21 per cent of total deaths in the kids-below-5-years group

Under 5

9.7 million total deaths of children in the world

2.1 million in India

Neonatal period (first 28 days)

4 million total in the world

1 million in India

■ UNICEF says early initiation of breast-feeding — within an hour of birth — will help reduce neonatal mortality in India by 22 per cent

■ 38 per cent of new-borns in developing countries start breast-feeding in an hour

■ 24 per cent do the same in India

Low birth weight (<2.5 kg)

19 million total in the world

8.3 million in India

Underweight

156 million total in the world

54.6 million in India

Malnourished

46% of total children in India

This is worse than least developed countries where the figure is: **35%**

In rest of south Asia: **42%**

In developed countries: **26%**

■ UNICEF report says in India, progress in improving nutrition rate among children has been slow.

■ The guilty states are: Madhya Pradesh, Jharkhand, Bihar, Gujarat, Orissa, Chhattisgarh, Uttar Pradesh and Meghalaya



GRAPHIC: SANJAY KAPOOR

Mother and Child

India has the single largest number of newborn deaths in the world

Every year, in India, 2.1 million children die before their fifth birthday. Half of these children die even before they are 28 days old, accounting for one-fourth of global infant deaths. Of the 9.7 million child deaths worldwide annually, one-third occur in India. Unesco's 2008 report on the state of the world's children presents an acutely embarrassing picture of infant and child mortality in the country. Unesco officials point out the unusual challenge India faces in child survival even as its economic growth rates move up.

No healthcare for 53% of kids under 5

India Does Worse Than Ghana And Eritrea

Kounteya Sinha | TNN

New Delhi: For a country crowing about its cracking growth rate, here is a fact that should make its head hang in shame. Over 53% of children in India under five years — that is, 67 million — live without basic healthcare facilities.

This means that India alone accounts for about one-third of all children in the world aged below five who don't have basic healthcare. In turn, it also means that poor children in India, along with those in Brazil and Egypt, are three times more likely to die before their fifth birthday than children in other parts of the world.

According to the latest global report card, which examined 55 countries that together account for 59% of the world's under-five population and 83% of the deaths among these children, India ranks 27th along with Ghana and Eritrea when it comes to providing basic healthcare to its children, which includes life-saving interventions like prenatal care, skilled childbirth, immunization and treatment for diarrhoea and pneumonia.

The report — "State of the World's Mothers" — brought out by global humanitarian organization Save the Children, says India is seeing alarming inequalities with respect to health services reaching the poorest child and the wealthiest. The report's says that while 66% of the poorest children in India receive no or minimal healthcare, the number stands at 31% of well-off children, who are not covered.

The report also points to worrying survival gaps for girls. It says girls die here at much higher rates than boys, with gender gaps constantly widening. Indian girls are 61% more likely than boys to die between the ages of one and five. In other words, for every

SHAME CARD



- **67 million** Indian children below 5 live without basic healthcare
- Poor children three times more likely to die before fifth birthday
- Over **1 million** children in India die in their first month of life annually
- **66%** of poorest children receive no or minimal healthcare compared with **31%** of well-off children not covered
- Indian girls between 1 and 5 **61%** more likely to die than boys

Source: State of the World's Mothers report by Save the Children organization

Childhood Mortality

State of World's Children 2008

- 9.7 million < 5 deaths annually world over

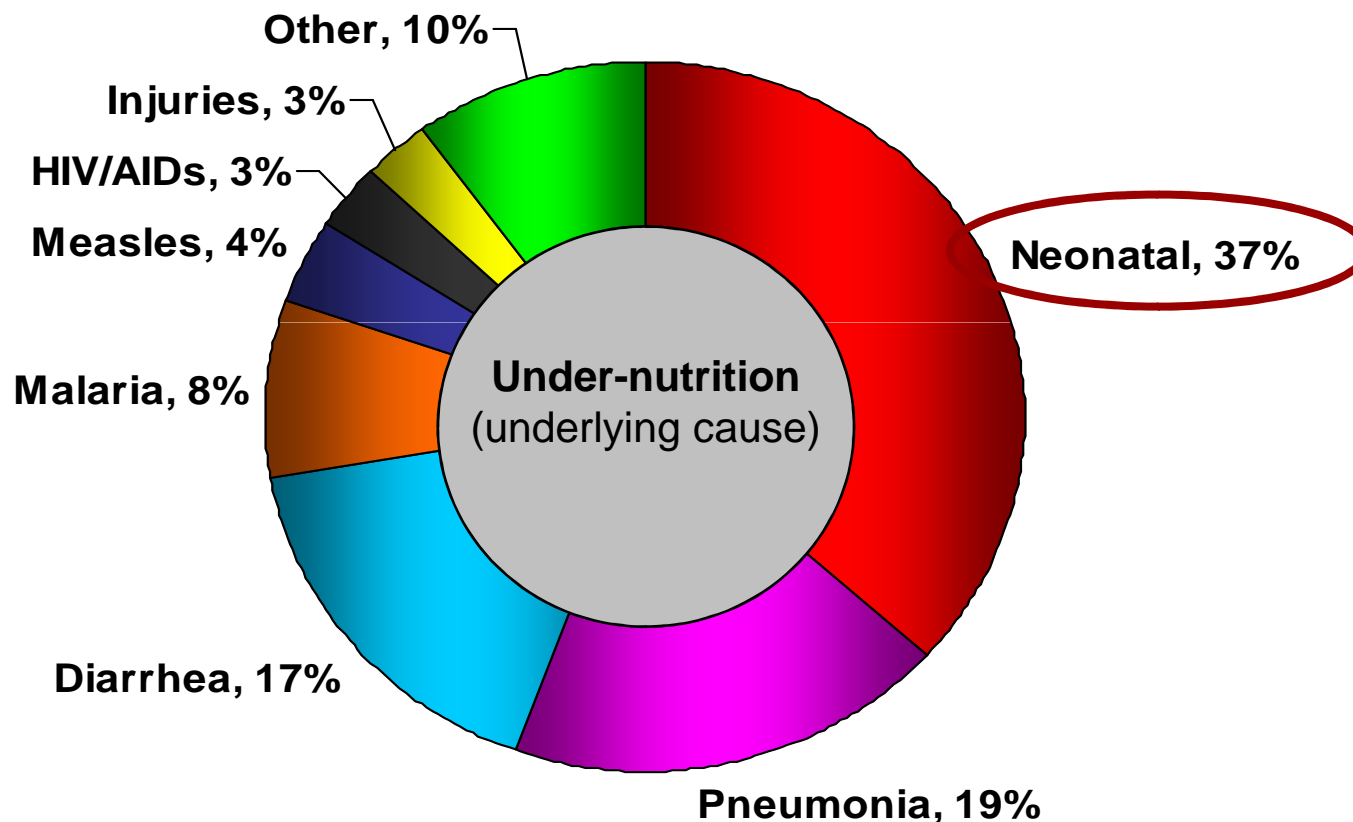
India

2.1 million (21%)

**1 million newborns die
annually in India**

Under 5 Child Mortality

Global Distribution of Cause Specific Child Deaths

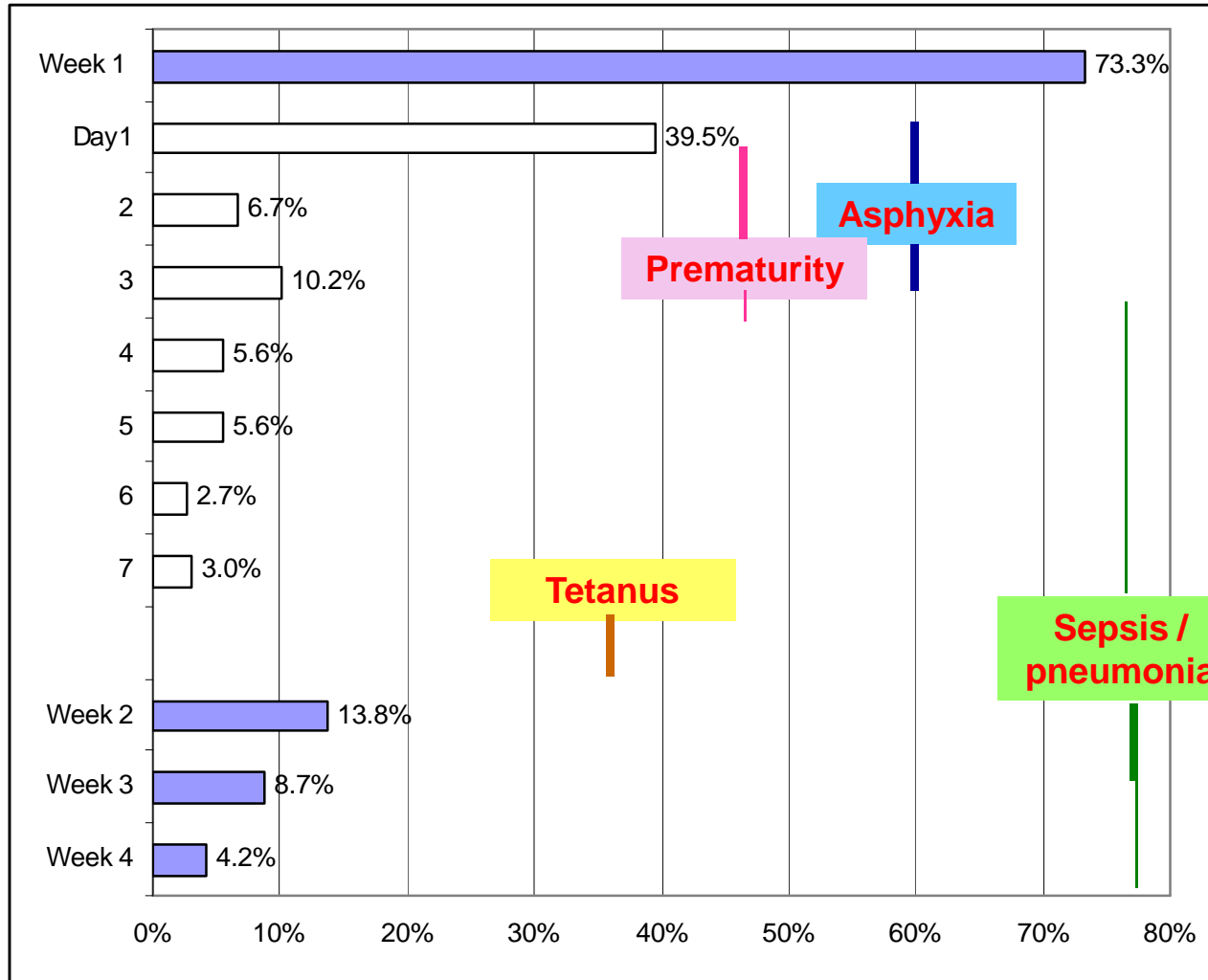


Source: 2005 World Health Report

- The commonest primary cause of neonatal death was perinatal asphyxia(28.8%).
- Other major causes were Septicemia /meningitis (18.6%)
- Extreme prematurity (26.3%)
- Congenital malformations (9.2%)

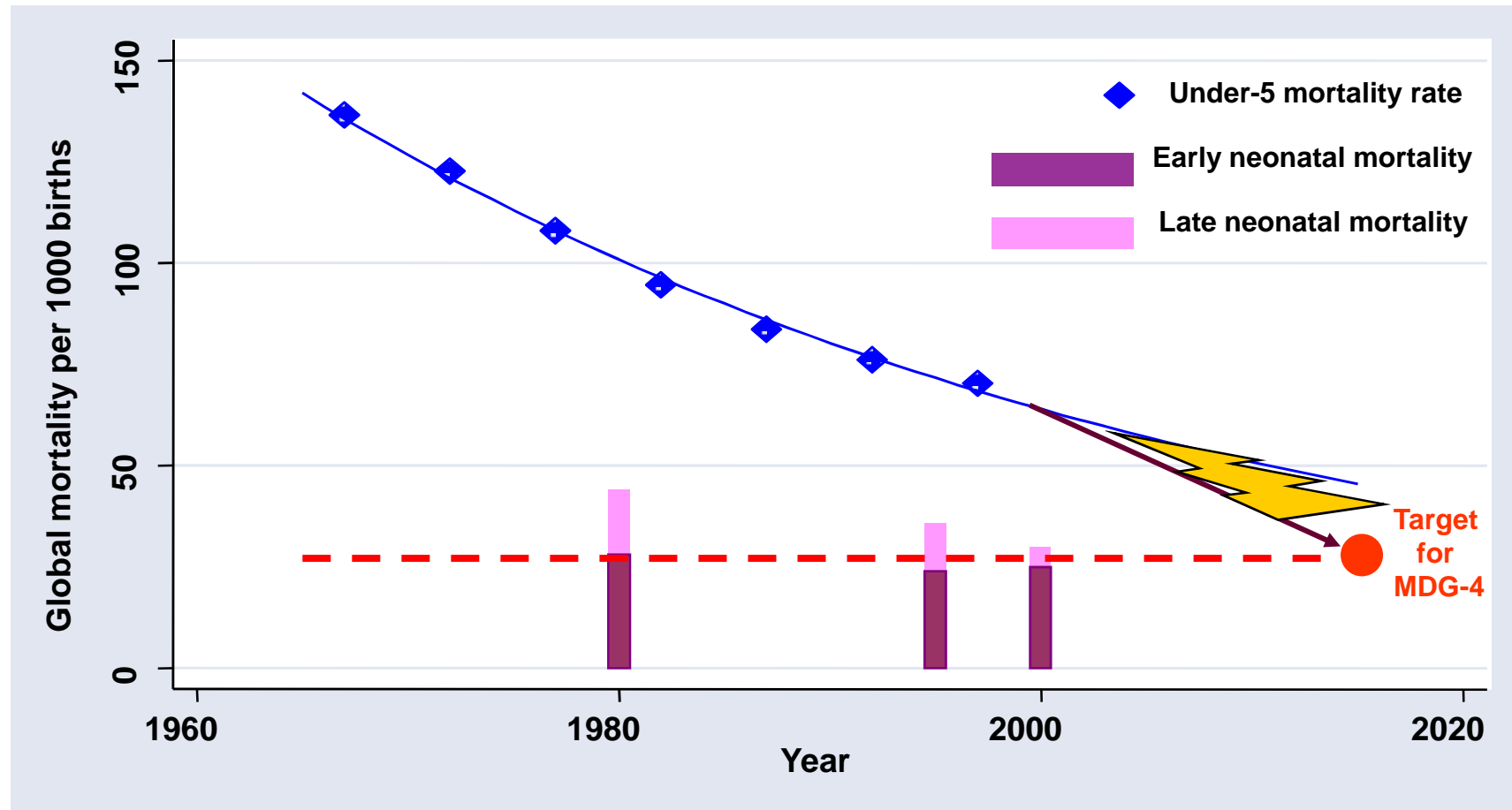
Neonatal Perinatal Database 2002-2003

When and why do neonates die ?



Day	U5 Child deaths
1st day	20%
By 3rd day	25%
By 7th day	37%
By 28th day	50%

Neonatal deaths and the Millennium Development Goal 4



Millennium Development Goal 4 can only be achieved if neonatal deaths are addressed - missing from current programmes

Newborn survival

Until the mid to late 1990s, estimates of the number of child deaths occurring during the neonatal period (the first month of life) were drawn from rough historical data rather than from specific surveys. More rigorous estimates for newborn deaths emerged in 1995 and 2000, as data from reliable household surveys became available. Analysis of these data made it evident that previous estimates had seriously understated the scale of the problem. Although the global neonatal mortality rate has decreased slightly since 1980, neonatal deaths have become proportionally much more significant because the reduction of neonatal mortality has been slower than that of under-five mortality: Between 1980 and 2000, deaths in the first month of life declined by a quarter, while deaths between one month and five years declined by a third.

The latest evidence is that 4 million babies die each year in their first month of life, and up to half of these die in their first 24 hours – a child is about 500 times more likely to die in the first day of life than at one month of age. Neonatal

mortality accounts for almost 40 per cent of all under-five deaths and for nearly 60 per cent of infant (under-one) deaths. The largest absolute number of newborn deaths occurs in South Asia – India contributes a quarter of the world total – but the highest national rates of neonatal mortality occur in sub-Saharan Africa. A common factor in these deaths is the health of the mother – each year more than 500,000 women die in childbirth or from complications during pregnancy, and babies whose mothers have died during childbirth have a much greater chance of dying in their first year than those whose mothers remain alive.

Even these figures underestimate the vast scale of the problems that affect children during the neonatal period. For example, more than 3 million children who survive birth asphyxia each year go on to suffer such problems as cerebral palsy, learning difficulties, and other disabilities. For every newborn baby who dies, another 20 suffer birth injury, complications arising from preterm birth or other neonatal conditions.

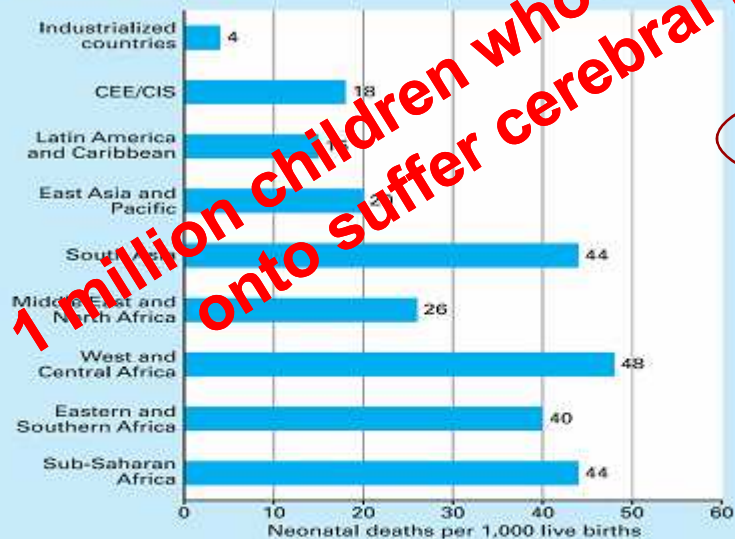
Significant improvements in the early neonatal period will depend on essential interventions for mothers and babies before, during and immediately after birth. According to the latest estimates for 2000–2006, at present in the developing world, one quarter of pregnant women do not receive even a single visit from skilled health personnel (doctor, nurse, midwife); only 59 per cent of births take place with the assistance of a skilled attendant, and just over half take place in a health facility.

Averting neonatal death is pivotal to reduce child mortality

Averting neonatal deaths is pivotal to reducing child mortality. *The Lancet Neonatal Survival Series*, published in 2005, estimated that 3 million of the 4 million deaths could be prevented each year if high coverage (90 per cent) is achieved for a package of proven, cost-effective interventions that are delivered through outreach, families and communities, and facility-based clinical care across a continuum of neonatal care (antenatal, intrapartum and postpartum). While increasing skilled care is essential, the Neonatal Survival Series underlines the importance of interim solutions that can save almost 40 per cent of newborn lives in community settings. Expanding programmes that prevent mother-to-child transmission of HIV is also crucial.

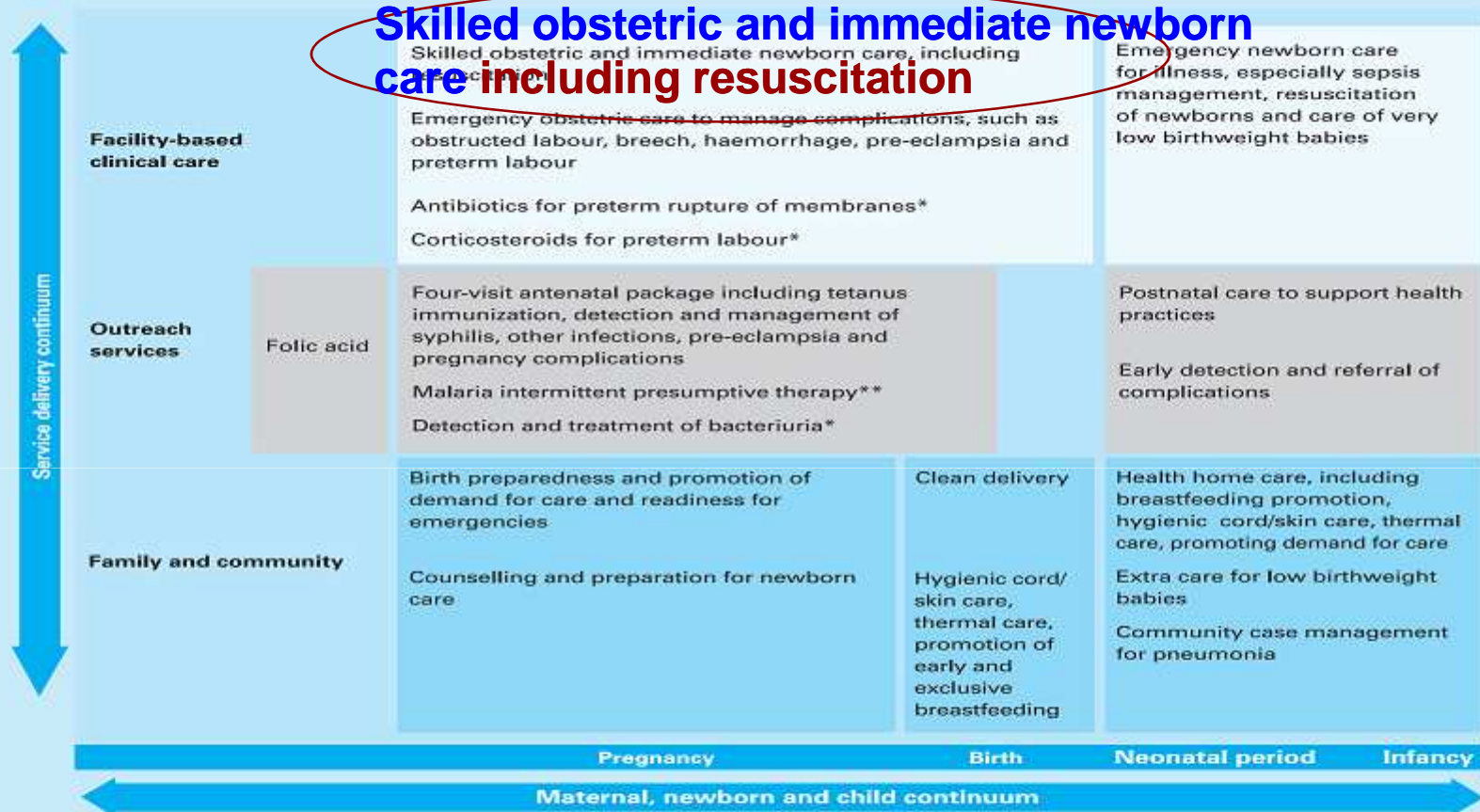
Actions required to save newborns include setting evidence-based, results-oriented plans at the national level with specific strategies to reach the poorest, greater funding, agreed targets for neonatal mortality reduction, and promotion of greater harmonization and accountability on the part of stakeholders at the international level.

Figure 1.2
Global rates of neonatal mortality, 2000



Source: World Health Organization, using vital registration systems and household surveys. Country and regional data for neonatal mortality rates in 2000 can be found in Statistical Table 1, p. 114 of this report.

High-impact, simple interventions to save newborn lives within the continuum of maternal and child health care



* Additional interventions for settings with stronger health systems and lower mortality.

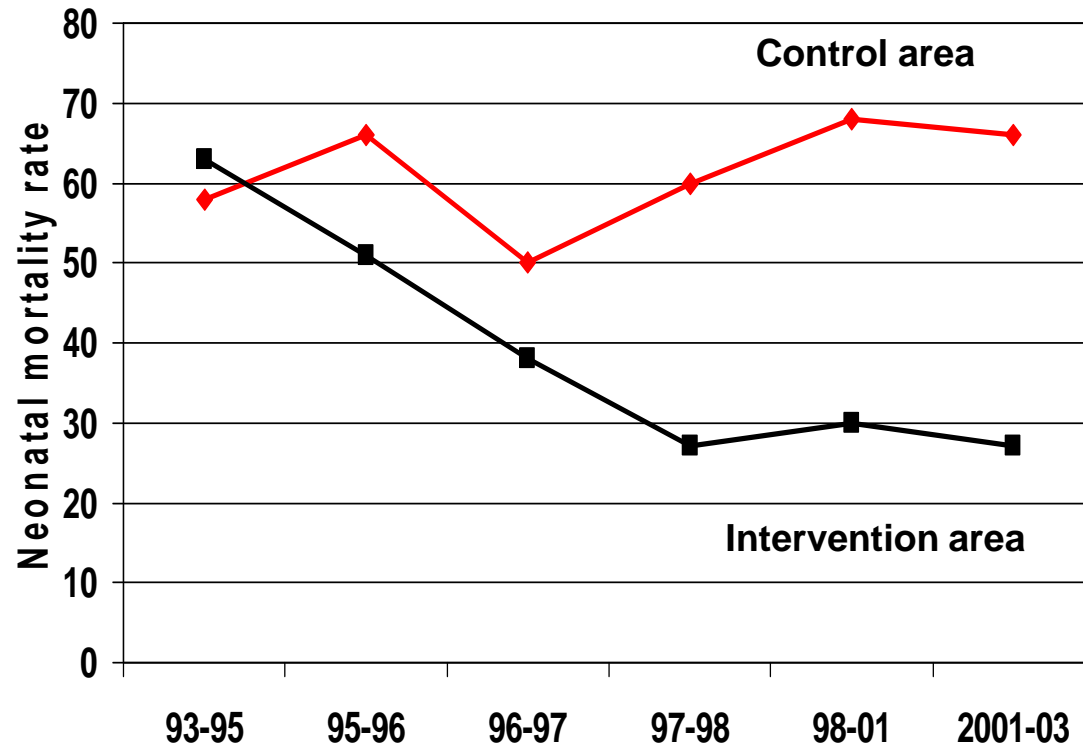
** Situational interventions necessary in certain settings, such as areas of high malaria prevalence.

Note: This figure includes 16 interventions with proven efficacy in reducing neonatal mortality. Other important interventions are delivered during this time period but are not shown here because their primary effect is not on neonatal deaths (e.g., prevention of mother-to-child transmission of HIV). For some of the interventions listed, the service delivery mode may vary between settings.

Source: *The Lancet Series Team, 'The Lancet Series on Neonatal Health Executive Summary', The Lancet, 3 March 2005, p. 3.*

See References, page 104.

VHW : Gadchiroli experience



Interventions

- Trained VHW
1/1000 population
- **Birth asphyxia**
- **LBW**
- **Temp. maintenance**
- **Promotion of BF**
- **Prevention of superficial infection**
- **Management of sepsis (inj gentamicin and oral cotrimoxazole)**
- **Health education**

What IAP can do to improve child survival?

What IAP can do to save the newborns!

Existing IAP Programs

- Under 5 Child Survival Intervention
- HIV Sub Divisional Level Workshops
- Sensitization of Practicing Pediatricians on IMNCI
- Child Rights & Protection
- IYCF
- Polio Activity
- Diarrhea and Zinc Program
- Essential Newborn Care
- Science of Vaccinology
- PSPID
- ATM
- GEMS
- Tele medicine.....etc

Can we do something special to improve newborn survival

IAP's Initiative

For improving Child Survival,
Neonatal resuscitation Program (NRP)
with emphasis on management of
First minute after birth is crucial.

“First Golden Minute”

- Joint venture of IAP-LDSC
- With support from J and J India and MSD.
- More than > 250,000 health professionals and workers will be trained in next 5 years
- Ultimate aim to have one NRP trained person attending every delivery (> 27 millions deliveries /year in India)

“First Golden Minute”

Who will be trained ?

- 18000 IAP members
- 18000 pediatricians who are not members
- 40,000 Obs and Gynec
- 20,000 Anesthetists
- Medical officers, Doctors in private practice who are attending deliveries
- Paramedical staff, Nurses and ANMs

“First Golden Minute”

Program so far ?

- July 30-31, 2008: In collaboration AAP 20 master trained at Apollo hospital, Delhi.
- Nov 14-15, 2008: Pilot training project for District Instructor Course at Noida, UP
- Jan 18-19, 2009: Pilot training project for District Instructor Course at Gandhidham, Gujarat.
- Jan 21-22, 2009: Trained 105 regional trainers at Bangalore, Karnataka during Pedicon

“First Golden Minute”

Program Ahead

- 9 regional training workshops in first year, of two days duration to train 200, District NRP Instructors from 100 Districts of India where there is high Child mortality .

All District Instructors who are trained will receive :

- Resuscitation Training Kits, including
 - One Basic manikin; One bag & mask
 - Other practice supplies (stethoscope, blankets,)
- Master copies of training materials
 - Power point and/or flip chart presentation
 - Tests and answer keys
 - Resuscitation booklet (30 pages, adapted from the NRP Text)

“First Golden Minute”

- These District NRP Instructors will conduct provider courses in their districts involving pediatricians, Obstetricians , Institutions conducting deliveries
- In order to retain their card they are suppose to conduct one course/ train 50 persons per year



Some Participants of
1st National Training of Trainers workshop on NRP