

1. Global Tragedy - One pregnant woman and 6 new born babies die each minute- staggering 0.5 million and 3 million respectively, per year globally. The impact of the loss of one person on the family, community and the country is enormous. For every woman who dies at childbirth, approximately 20 are affected by major disability with long term consequences.

2. Causes of Maternal Mortality – known medical causes include severe haemorrhage, infection, injury, raised blood pressure; also delays in diagnosis of urgent, serious medical problems, delays in transport and delays in accessing expert care in health facility (3 delay model in emergency care) contribute to the toll.

3 . Position in India - MDG 5A of the UN aims at three quarter reduction of maternal mortality ratio (MMR) between 1990 and 2015 . In India progress has been slow

Important MCH indicators in India
Current Status vs. Goals:

	Current Tenth Five Year Plan	NPP2010	MDGs2015
IMR	53 (SRS 2009)	45	30
NMR	36 (SRS 2007)	26	20
MMR	254 (SRS 2004-2006)	200	100

IMR, NMR-per 1000 live births; MMR per 1,00,000 live births

Note: IMR – Infant Mortality Rate; NMR – Neonatal Mortality Rate; MMR – Maternal Mortality Ratio, SRS – Sample Registration Survey; NPP – National Population Policy; MDG – Millennium Development Goals

N.B. At the current rate ,the goal will not be achieved (please see Fig 1) – current reduction is estimated at 1 % per annum, it should be 5.5% to achieve MDG 5A target. There are a number of possible reasons for this failure (please see Para 5)

4. Review of MMR and Child Mortality Trends in India In reports in 2003 and 2004, Drs. Sachs and Bajpai from the Earth Institute emphasized that while India has strong economic growth and had made some progress towards the MDGs (poverty, education) ,the healthcare goals lagged behind .

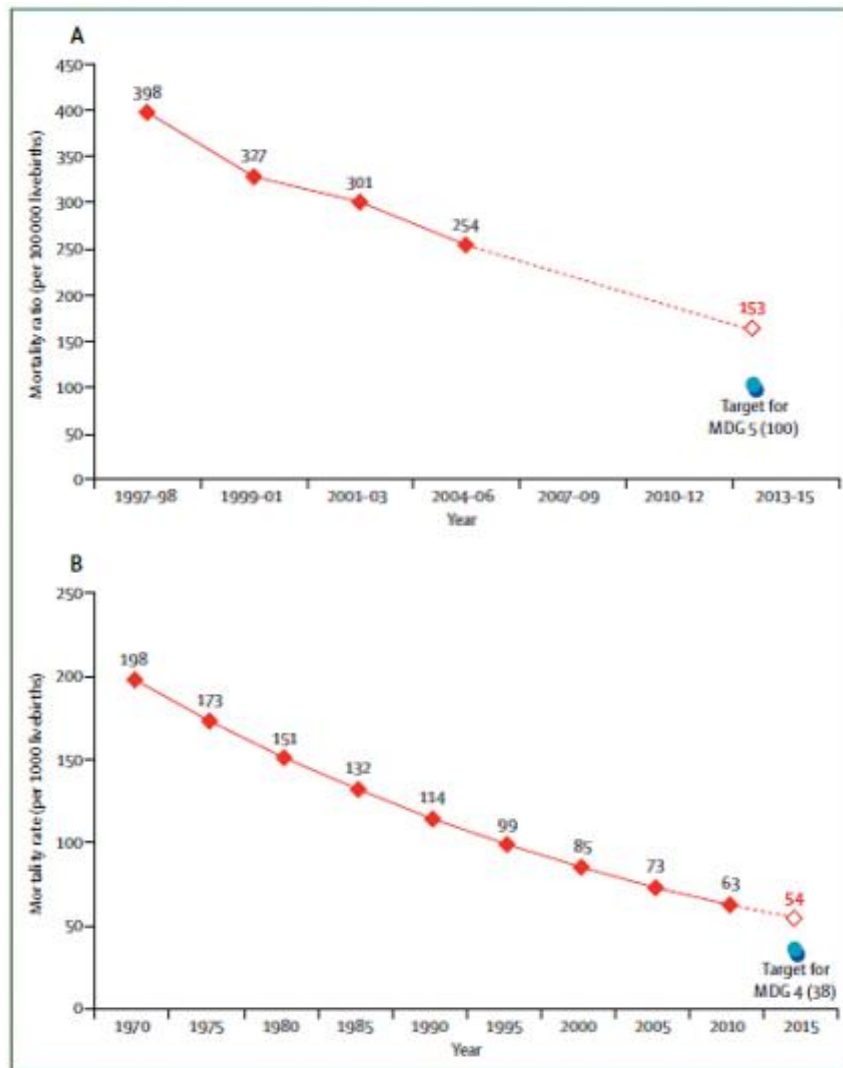


Figure 1: Trends and projections in maternal mortality ratio (A) and child (age <5 years) mortality rate (B) in India
 (A) Data from the Registrar General of India;¹³ projection to 2015 is based on the average annual rate of reduction from 1997-98 to 2004-06. MDG=Millennium Development Goal. (B) Data from the Institute for Health Metrics and Evaluation;¹⁴ the projection to 2015 is based on the average annual rate of reduction since 1990.

FIGURE 1. National and MDG goals - and progress - in maternal and child health. Paul et al 2011.

5. Reasons for Slow Global Progress - slow progress in achieving the goal of MDG 5A, is due in part to approaches aimed at improvements through specific single areas of remedial action such as training of professionals, building of infrastructure, or empowering of women, all working at the grass root level. Major obstacles include lack of information about the benefits of modern medical practice and lack of institutions to turn to for help.

An integrative approach covering all these is necessary for sustainable real progress. The approach, for its success requires partnership with Government, Health Professional groups and Community Leadership

Additionally, there is the “Three Is” leading to failure – Ideology (non-evidence based intervention which fails, Ignorance (intervention without taking into account the local conditions) and Inertia (nobody wants to stop the old system and introduce the new)

6.CALMED Model - **C**ollective **A**ction in **L**owering **M**aternity **E**ncountered **D**eaths – in this , no new technology is involved; it utilises collaborative action in a cascade of

- **hands on training** including skills training of all levels of carers in emergency obstetric and new born care to an acceptable WHO standard, through Training The Trainer

(TTT) model, incorporating BEmONC (Basic Emergency Obstetric Newborn Care) and on-going monitoring and evaluation of that standard.

This also incorporates training birth attendants to a Skilled Birth Attendants (SBA) level

- **correcting deficiencies of infrastructure** – ambulance, mobile phones, electricity generator, medicines and equipment, to an agreed minimum standard.
- **initiating social mobilisation** (empowerment) of women in the community ,who work through raising the age of marriage, microcredit -economic and community development, raising awareness of family spacing, awareness of special care of pregnant women and children, immunisation and other preventive measures ,all within the framework of local culture and belief

7. Why choose India for initial study ?

India has the highest number of maternal deaths in the world. The national maternal mortality rate (MMR) is 254 per 100,000 live births, an absolute number of 68,000 per year. There is disparity between states, and some states far exceed national MMR, including Assam (480) and Uttar Pradesh (440)

However, there is place for improvement -only 52.7% of women have a safe delivery (defined as one in an institution or at home attended by skilled health professional). Less than 20% had full antenatal care, which includes at least three antenatal care visits, one tetanus toxoid injection, and the recommended dose of iron supplementation. Over half of married women are anaemic, and one third of women are underweight. India is also marked by particularly high unmet need for contraception, rampant unsafe abortion, young pregnancies (30% of women deliver before the age of 20), and minimal reproductive health support for younger women

There is a national training programme and infrastructure building by the Government of India (GOI) in partnership with the Liverpool School of Tropical Medicine (LSTM), supported by a Grant from the U.K. Government (DfID), Royal College of Obstetricians and Gynaecologists (RCOG) and WHO. A recent (June 2012) Monitoring and Evaluation of this on-going training carried out in Delhi and 7 states with high MMR (high focus states) showed that this training the trainer model has been successful in most of the states.

8. Action Needed -discussion with the respective State Government Health Department will be a good start helping to define the needs of the community and resources including manpower currently available.

Similarly, liaising with local professional groups will assist in planning training programmes for the BEmOC and SBA levels. A strategic plan of action ensuring impact and sustainability can then evolve, based on the CALMED model outlined above.

Partnership between the Government of India(GOI), Rotary and LSTM, will provide the basis for sustainable impact in this approach.

Partnership with FIGO LOGIC and WCF, will identify areas of Rotary involvement using the CALMED model

9. Looking to the Future -Capacity Building - Manpower shortages in SBA number and in Basic Emergency Obstetric care (BEmOC) and Comprehensive Emergency Obstetric Care (CEmOC) trained staffing, cannot be overcome by training alone. These are fundamental issues ,which must remain priorities until the problem is resolved.

Partnership with Government of India and local professional bodies (FOGSI) is essential to introducing innovative ideas such as a new cadre of “non-physician clinicians” and fast track training of midwives and nurses. In states and areas with acute manpower shortage, such measures are urgently needed.

10. Rotary Foundation Grants -- Rotary can assist by Rotary Foundation Global Grants in Future Vision Pilot Districts (or Matching Grant in non-pilot Districts) by

- helping to send fully prepared and briefed Vocational Training Team (VTT) of Doctors (Obstetrician, Paediatrician) and Midwives to areas of high MMR and new born deaths. They will help to assist local initiatives of training midwives and birth attendants to skilled birth attendant (SBA) level. They will also assist to improve conditions contributing to the three delay model.
- building up of infrastructure including emergency transport (basic ambulances), communication (mobile phones), an inventory of drugs and equipment which are necessary.
- social mobilisation (as above).
- Monitoring and evaluation of the programme to an agreed standard (please see 13)

Vocational training team will leave behind a functioning group of local master trainers and a sustainable Obstetric and Paediatric programme incorporating regular “fire drill” exercise (please see below). This will have a longer term impact on the mortality statistic. An estimated average cost of such a Global Grant project covering a 3 year period is \$ 45000 to \$ 60000 achievable through a Global Grant award or Matching Grant Award

11. Responsibilities of the International Partner District – funding, vocational team selection, team training and briefing, procurement of training materials including mannequins etc. ,making travel arrangements, coordination of the programme at host district, on-going support of the programme, monitoring and evaluation ,publicity etc., reporting to TRF.

It is important to have Obstetricians, Paediatricians, Midwives and Administrators as members of the Project Team (Project Implementation Group)

12. Responsibilities of the Host district –Consultation with the Government, Medical Officers of Health, will identify high maternal mortality risk areas leading to Establishment of the needs of target areas, funding, arrangements for training the trainers and subsequent training of birth attendants to SBA level; hospitality, transport and training facilities for the visiting team, regular refresher courses (fire drill) ,data collection and audit (Monitoring and Evaluation) , maintenance of transport, equipment and other inventory, support for women’s groups, liaison with international partner district and reporting to TRF .

Obstetricians, Paediatricians, Midwives and Administrators should be members of the Project Team (Project Implementation Group)

13. Resources available to District 1120 , as an International partner– We have access to Master Trainers involved in training the trainers, drugs, equipment including Mannequin, training programme manual. We can share the programme details with interested Rotarians. We have close liaison with FIGO, LSTM, RCOG,FOGSI, and WCF.

14. Monitoring of Progress will be by locally modified MDG 5 monitoring parameters including, MMR, number of stillbirths, proportion of delivery by skilled professionals, Caesarean sections, instrumental deliveries ,incidence of severe haemorrhage after birth, contraceptive prevalence rate, adolescent birth rate, antenatal care coverage, unmet need for family planning etc.

This will also include EmOC (Emergency Obstetric Care) and NC (New Born care) signal functions such as use of oxytocic drugs (preventing haemorrhage), incidence of baby resuscitation, use of antibiotic etc.

Views of local women's groups, professional groups and Rotarians will also be monitored. Details of data collection and monitoring including the use of indicators will have to be agreed beforehand.

15. Partnership with Government of India and other bodies

It is essential to have this partnership at the very beginning, as changes and effective measures are to be introduced as supplements to Government initiatives or initiatives of partners such as LSTM, FIGO LOGIC or WCF (Women and Children First). This partnership will continue to be the key to success.

16. Progress in other Countries

Success arising out of this initiative in India, will pave the way to wider adoption of the same model, possibly modified to suit the individual country needs. Partnership with organisations already involved in this field in other countries, can initiate comprehensive programmes described in this concept paper.

17. Executive Summary

- a. A comprehensive collaborative model (CALMED MODEL) outlined in this concept paper, has support from professional groups (FIGO, FOGSI, RCOG, LSTM), Government of India, Rotary International and women's organisation (Women and Children First)**
- b. Training initiatives in Emergency Obstetric care (BEmOC) by GOI and LSTM partnership continues to be effective in improving agreed parameters.**
- c. CALMED MODEL can be promoted through Global Grants and VTT arranged between Pilot Districts in RIBI and selected FVP Districts in India. The training will be based on the LSTM model. The cost of these will be between \$ 50000 and 80000 over a three year period.**
- d. GOI support is essential in identifying high focus areas, their need, and the resources needed and facilitating implementation of the three arms of the CALMED model. GOI will also assist in monitoring and Evaluation of this model.**
- e. Rotary Implementation Groups should be established in RIBI and India to take these initiatives forward in a coordinated fashion.**

“Investing in the health of women and children is not only the right thing to do; it also builds stable, peaceful and productive societies. It reduces poverty; stimulates economic growth; it's cost-effective, and it helps women and children realise their fundamental human rights. (Ban Ki Moon)



Please visit

http://www.rotariandoctors.org/projects/PDF_Maternal-Mortality-Reduction-Strategy.pdf

Dr Himansu Basu
Obstetrician and Gynaecologist
Accredited Master Trainer
Grants Committee Chairman, Rotary International District 1120
Past District Governor, Rotary International Dist. 1120
Past Chairman, International Fellowship of Rotarian Doctors
Email: drhbasumd@gmail.com

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