



**EVIDENCE
AND ACTION**

MARCH 2016



The Misoprostol and MgSO₄ Project

**REDUCING RISKS AND
IMPROVING SAFE
CHILDBIRTH IN NIGERIA**

BACKGROUND

With a Maternal Mortality Ratio of 576 per 100,000 live births¹, Nigeria contributes the largest number of deaths in Africa. Everyday, there is a 1 in 13 lifetime risk of maternal mortality and 111 women die daily from pregnancy and childbirth complications, with over 41, 000 dying to preventable causes that could be averted if basic quality health care was accessible.

Beyond the statistics however, is the pain of human tragedy, the loss of a mother, sister, wife and daughter. It is the loss of a life prematurely gone because of negligence or ignorance.

The Government of Nigeria has taken steps to reduce maternal mortality, a lot still needs to be done and it cannot do it alone.

UNFPA through its programme has partnered with the Government of Nigeria to address the significant cause of maternal mortality – pre/eclampsia and obstetric haemorrhage through strengthening the capacity of healthcare workers in the use of magnesium sulphate and misoprostol². The principle behind this is to empower healthcare providers with the appropriate skills to deliver prompt and effective treatment to the unbooked emergencies. The pilot phase of the Misoprostol project was implemented in 7 States³ - Gombe, Zamfara, Kano, Sokoto, Katsina, Jigawa and Kaduna.



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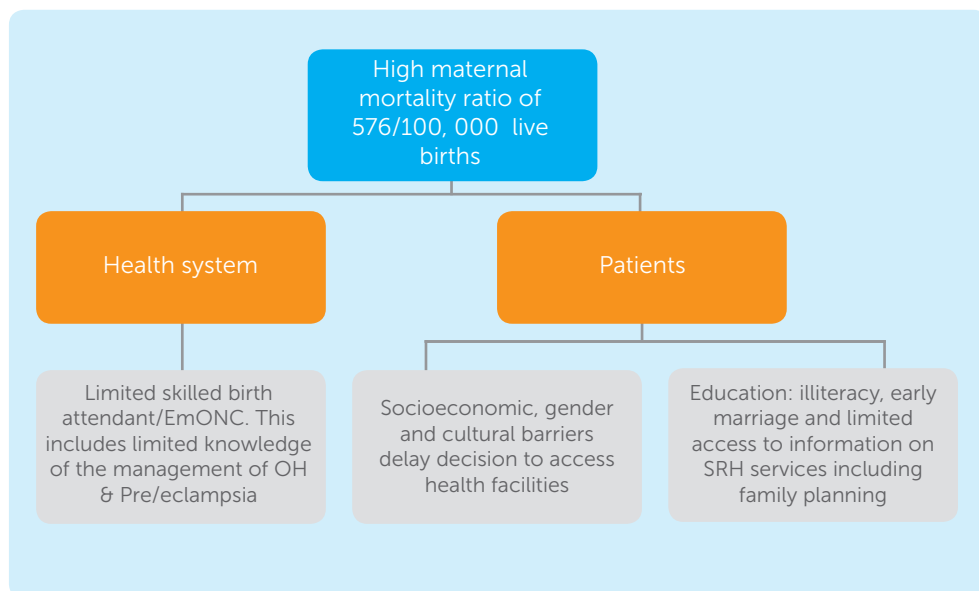
1. Report of Nigeria's Demographic and Health Survey, 2013
2. This project was implemented through the Centre for population and reproductive health, college of Medicine, University of Ibadan.
3. The National Demographic Health Survey (NDHS) 2013 reveals that the country's northern states have the highest burden of maternal mortality and newborn morbidity. The 7 States of interventions were selected from the North.



...it is inexcusable that in the 21st century motherhood remains so dangerous for so many. It is not only morally wrong but also hampers economic development and the survival and well-being of families, communities and nations."

Dr. Babatunde Osotimehin
UNFPA Executive Director

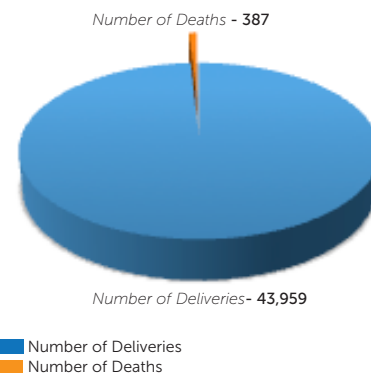
LEADING CAUSE OF MATERNAL MORTALITY



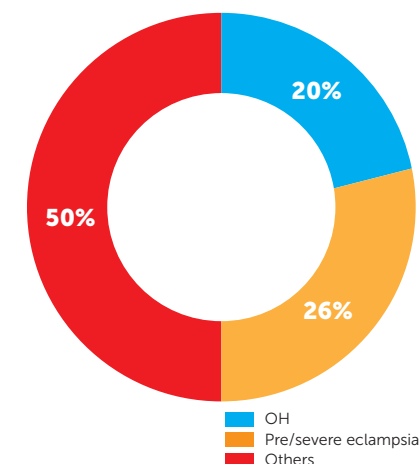
In 2013/2014, a baseline survey⁴ was conducted in 105 health facilities (84 primary healthcare centres and 21 comprehensive/general hospitals) to identify the leading cause of death and develop strategies to address them. The survey was done in 7 States⁵ including Gombe, Zamfara, Kano, Sokoto, Katsina, Jigawa and Kaduna; where it was determined that the average maternal mortality ratio (facility data) was 880 per 100,000 live births.

The findings revealed that one, the leading cause of death was post-partum haemorrhage and pre/severe eclampsia. Two, the risk of dying from post-partum (obstetric) haemorrhage and pre/severe eclampsia was heightened by the limited knowledge of health-care providers in managing these cases through the use of misoprostol, magnesium sulphate and anti-shock garments including stock out of these commodities and the increasing number of unbooked emergencies.

Baseline



Causes of death - Baseline



4. Data was collected over a period of six months (December 2013-May 2014)

5. Nigeria has 36 States and the Federal Capital Territory. These States are grouped into six geo-political zones namely – South west, South east, South south, North West, North East and North Central. The North west consisting of 6 States + 1 has the highest maternal mortality ratio in the country. The baseline survey was conducted in these 6 States + 1.

INTERVENTION

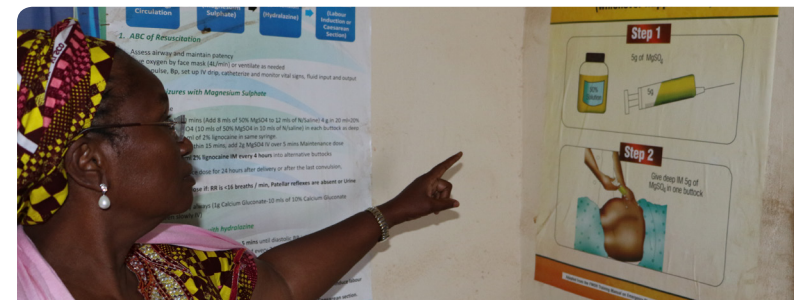
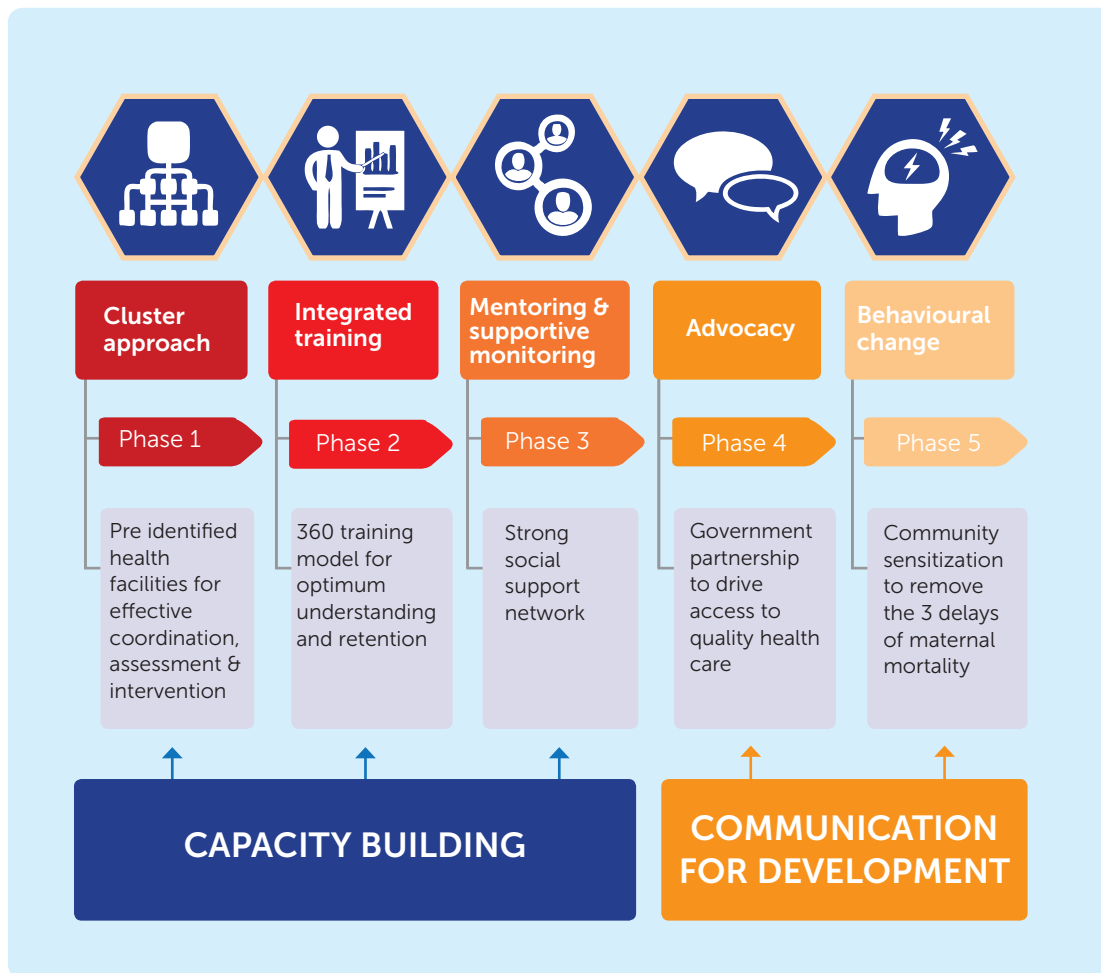
To improve the maternal mortality ratio and address the difficulties healthcare providers face in handling OH and Pre/eclampsia cases, UNFPA through its implementing partner, the Centre for Population and Reproductive Health (CPRH), developed a 2-pronged level of intervention. One, the capacity building of healthcare providers and two, communication for development which includes behavioural change and policy advocacy.

Intervention strategy

- 1 Capacity building**
- 2 Communication for development**
 - a. Behavioural change
 - b. Policy advocacy



STEPS TO SUCCESSFUL IMPLEMENTATION



This is not the first training we've had on the use of misoprostol and magnesium sulphate in the management of obstetric haemorrhage and pre/eclampsia cases, but it is the most result based and practical training we have had. It was different because of the new element thrown in – mentorship and coaching.

Reproductive Health coordinator, Kaduna State

- 1. Cluster approach** was adopted to efficiently and effectively manage existing gaps for coordinated assessment and overall achievement of set goals. 15 health facilities per state were selected and grouped into 3 clusters, with each cluster having 1 General hospital and 4 primary health care centres.

- 2. Integrated training** combined lectures, group discussions, role plays, case studies, videos and animations for optimal understanding and cognitive learning on the treatment of obstetric haemorrhage and pre/eclampsia.
- 3. Mentoring and supportive monitoring is a system** is a system where every trainee is mentored and closely monitored by the master trainer. This system builds a social support network for the healthcare provider and enhances his ability and confidence to manage obstetric haemorrhage and pre/eclampsia cases.
- 4. Advocacy** is done to encourage the Government not to relent in developing policies that secure access to quality healthcare. Especially in enlisting the commitment of state governments to support the prevention and management of these conditions. Many states have recently started investing in misoprostol, Magnesium sulphate and Anti Shock Garment.
- 5. Behavioural Change** through Community sensitization to remove the 3 delays of maternal mortality –

Delay in deciding to seek care, delay in reaching the health facility and delay in receiving treatment.



I had my first case of obstetric haemorrhage many years ago. The patient kept bleeding regardless of the pint of blood administered. I didn't know what to do. She had uterine atony and a vaginal tear. I watched her die as I tried to save her life. This loss has stayed with me. I feel the ache in my heart when I think of the life she could have had. She will never read a bedtime story to her little girl or watch her grow to become a surgeon. She would never feel the warmth of her loving husband or see him grow old with her. My ignorance is no excuse for this loss, but the capacity training I have received gives me the opportunity to save as many lives as I can.

Fatima Mohammed, Midwife of the MIB General hospital. Kaduna

IMPACT OF THE INTERVENTION

The project recorded good success at three levels:

1. Multi-level training of healthcare providers
2. Significant increase in the use of misoprostol and magnesium sulphate
3. Significant decrease in maternal mortality in the pilot health facilities

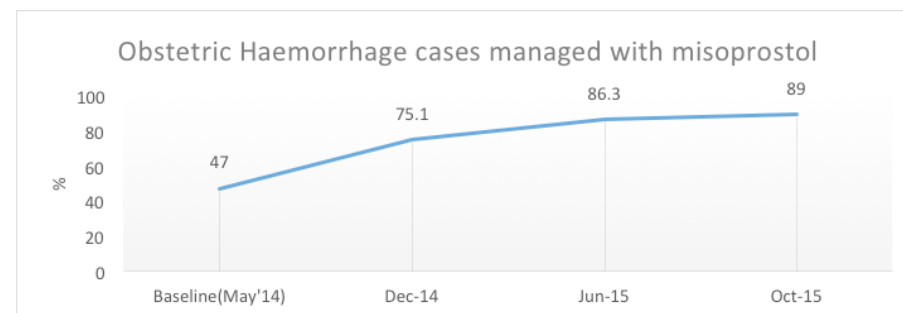
Multi-level training of healthcare providers

An ancient Chinese proverb says, “Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime.” Training the trainer is like teaching a man to fish. Train one trainer and they have the ability to impart their knowledge on many other healthcare providers in the States. UNFPA organized a “training of trainer” session for 21 master trainers. Consequently, step down trainings were conducted in all the States and a total of 1,890 health workers have been trained.

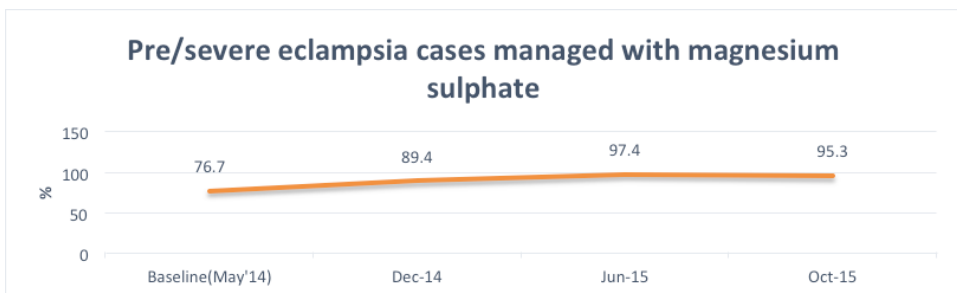
Significant increase in the use of misoprostol and magnesium sulphate

Baseline data collected in some of the States revealed that some health care workers were uncertain about the right dosage of misoprostol for the prevention and management of obstetric haemorrhage while many of the health facilities did not use magnesium sulphate to treat pre/eclampsia. A resulting consequence was the late referrals and death of pregnant women.

Upon the training of healthcare workers, treatment of OH cases with misoprostol increased by 28.1% within the first 7 months of intervention and to date, it has increased by 42%. Misoprostol is now the first medication administered to OH patients in the facilities supported (refer to the graph below).

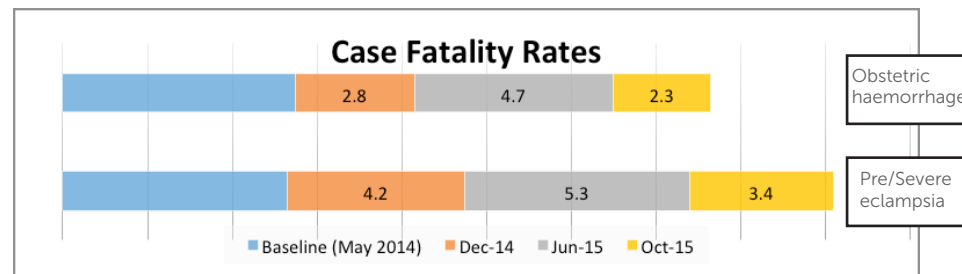


A similar trend was observed in the management of pre/eclampsia cases. There was a 12.7% increase in the use of magnesium sulphate to treat pre/eclampsia patients within the first 7 months of intervention, to date it has increased by 18.6% and is administered to at least 9 in every 10 cases of pre/eclampsia.

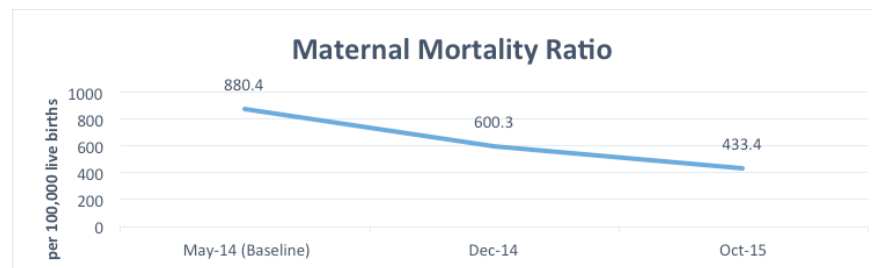


Significant decrease in maternal mortality in the pilot health facilities

The resulting impact of the project intervention led to a 58% decrease in case fatality rates of obstetric haemorrhage and a 19% decrease in case fatality rates of pre/severe eclampsia in a 20 months period.



Earlier we had identified obstetric haemorrhage, pre/eclampsia and the limited knowledge of healthcare workers in handling such cases as a leading cause of maternal mortality in Nigeria and particularly in its North West region. Upon our intervention, the maternal mortality in the 105 health facilities supported fell from 880/100,000 live births at baseline to 433/100,000 live births post intervention.



TESTIMONIAL FROM BENEFICIARIES



I have always dreamed of becoming an environment health officer and I did not think anything will stop me until I went into labour (childbirth). At the health facility, I fainted and was unconscious for 2 days. Sometimes we take being alive for granted, until certain events happen that shake us up. My babies (twins) were delivered safely and I am grateful to be alive.

*Niima,
a 23 year old mother of 2 and survivor elampsia*



I do not have to imagine how life will be for my little boy because I am alive to share it with him. I am thankful to God for keeping me alive and to the healthcare workers for knowing what to do.

*Habiba Yahaya,
a 26 year old mother of 3 and survivor of Obstetric Haemorrhage*

DATA ON IMPACT

58%

decrease in case fatality rates of obstetric hemorrhage

19%

decrease in case fatality rates of pre/severe eclampsia

Reduced maternal mortality ratio in twenty months **880 to 433**

500%

increase⁶ of health workers mentored on the use of misoprostol and magnesium sulphate

cases of Obstetric haemorrhage managed with misoprostol

7,002

6,165

cases of severe pre-eclampsia/eclampsia managed with magnesium sulphate

cases of severe Obstetric haemorrhage and advanced shock (near miss maternal mortality) benefitted from the use of the Anti-shock garment

291

6. 371 to 1890 health workers trained



“...We have saved the lives of so many and we would not stop until every child birth is safe!”

Ms. Ratidzai Ndhlovu
UNFPA Representative





Delivering a world where every pregnancy is wanted, every childbirth is safe and every young person's potential is fulfilled.

ACKNOWLEDGMENT

Project implementation is being done by the UNFPA country office in Nigeria, in collaboration with the following partners:



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