Ten years in Ethiopia: what differences did the Millennium Development Goals really make?

Katherine Lattey, Mary Russell, Adrian Brown

Introduction

Maternity Worldwide is an International NGO focussing on maternal health. Research demonstrates that the most effective way of reducing deaths of mothers and babies at childbirth is to address each of the factors in the 'Three Delays' model[1] which forms the basis of the World Health Organization's (WHO) Making Pregnancy Safer' framework:

- **The delay in seeking care** - for example due to the low status of women and poor understanding of risk factors and complications in pregnancy and when to seek help.
- **The delay in reaching care** - for example due to the distance to health centres and hospitals, availability of and cost of transportation.
- **The delay in receiving adequate health care** - for example due to poor facilities and lack of medical supplies and equipment, and inadequately trained and poorly motivated healthcare staff.

Our integrated approach addresses each delay and implements demand and supply side interventions.

Maternal mortality in Ethiopia is currently estimated to be 353 per 100,000 live births. It is thought that the mortality rate in rural areas far exceeds that of urban areas. Maternity Worldwide started working in Ethiopia in 2002. A detailed evaluative needs assessment was initially performed in 2004[2] and repeated in 2014[3] to determine what impact a range of initiatives by Maternity Worldwide and the government have had to address the Millennium Development Goals (MDGs) in the area around Gimbie in West Wollega.

Methods

Initial desktop research was performed before each visit to identify Ethiopian national and regional published data and review previous evidence-based interventions. Qualitative and quantitative data was collected in country, from villages and governmental departments. Semi-structured interviews were performed with service providers and users to obtain views regarding maternity services provision

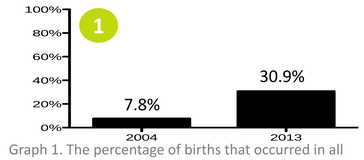
Results

Many changes have occurred in Gimbie over the previous decade.

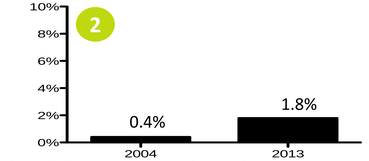
MDG 3 **Promote gender inequality and empower women.** Regarding MDG3 the government has introduced a "Women's Developmental Army" initiative. These are also called "one-to-five groups" where one woman in the village 'looks after' another five. They are supported by health extension workers, who should be female and recruited from local villages, who are trained to work with families to deliver health promotion activities including such topics as maternal and child health.

MDG 5a **Reduce the maternal mortality ratio.** MDG5a has been affected by the building of a governmental hospital alongside the pre-existing Adventist hospital. Four-by-four and motorbike ambulances have been introduced to improve access to more rural areas. Emergency surgeons are now being trained who are health officers (with three and a half years formal training) who go on to gain a further four months training in performing caesarean sections.

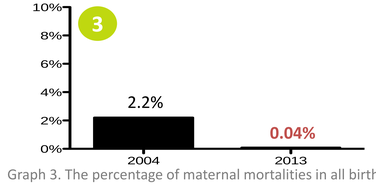
MDG 5b **Achieve universal access to reproductive health.** Data from the Zonal Health Office for West Wollega stated that in the zone, 152,896 women were repeat acceptors of contraception and in the last year there had been 63,058 new acceptors giving a total of 215,954 women using contraception in the zone. Health workers stated that the injection was the most popular form of contraception.



Graph 1. The percentage of births that occurred in all healthcare facilities.



Graph 2. The percentage of births delivered by caesarean section.



Graph 3. The percentage of maternal mortalities in all births.

A. 'Foot' ambulance. **B.** Couple with twins cared for by Maternity Worldwide. **C.** Gimbie Government Hospital, 50 bedded hospital. **D.** Gimbie Adventist Hospital, 80 bedded hospital. **E.** Government 4x4 ambulance at a health post in Ganji. **F.** Maternity Worldwide motorbike ambulance in Gimbie.

- In 2004 7.8% of births occurred in all health facilities in West Wollega, this increased to 30.9% in 2013, with the majority occurring in health centres and health posts (graph 1). However, only 6.4% of those had been in emergency obstetric care (EmOC) facilities, when the WHO recommends more than 15% of births should occur in EmOC facilities.
- 1.8% of women gave birth by caesarean section, compared to only 0.4% in 2004 (graph 2). However, due to a shortage of the correct forceps many caesarean sections were being performed to expedite delivery.
- The case fatality rate in 2013 was calculated to be 0.08% in comparison to 2.2% in 2004 (graph 3). This was based on the figures from the Zonal Health Office in West Wollega, but qualitative data from service providers and users calls into question the reliability of this figure. They reported only 12 maternal deaths in the whole region in 2013.
- It was calculated from data available that West Wollega, with a population of 1,655,954, had 20 basic and 5 comprehensive EmOC facilities. This was more than the recommended level of 16 basic and 4 comprehensive EmOC facilities.
- We were unable to assess the number of women in 2013 that experienced a major obstetric complication and were treated at any healthcare facility.

Discussion

Targeted recommendations for West Wollega generated from this work, which may be of use to other non-governmental organizations and global health workers, included:

1. **Waiting homes** – buildings where women at high and medium obstetric risk, which are close to the health facility, can stay before delivery if they live far away.
2. **Antenatal risk assessment** – research has shown that assessing risk can be performed using simple parameters such as blood measure, urine dip, a focused history, obstetric palpation and a portable ultrasound. However, the antenatal care offered is variable in different locations in West Wollega.
3. **'Foot ambulances'** – the four-by-four cars and motorbikes have increased access to remote villages; however, there are still areas that cannot be access by vehicles due to the terrain. A formally organised system in villages where men carry the women to areas where the motorbike could access, may reduce the time taken to reach an EmOC facility.
4. **Home to hospital tracking** – strengthen the paper based referral system hospitals receive when a woman with an obstetric complication is coming in, which is currently underutilized. Establish a robust mechanism to track the 'patient journey' from home to health centre, and health centre to hospital.
5. **Strength midwifery training** – to address the shortage of skilled birth attendants in Ethiopia, as this has been shown to have the greatest impact on maternal mortality[4].
6. **Maternal death reviews** – to enable lessons to be learnt from maternal deaths fostering a "no shame, no blame" culture.

Some of the data that we collected, such as the number of maternal deaths, was clearly erroneous however, this was in the context in-country of increasing political pressure to have met the MDGs.

Conclusion

Our data indicates that progress has been made in West Wollega following the effort surrounding the MDGs and Maternity Worldwide's work. However, there are still multiple challenges in the services provided leading to the development of targeted recommendations.

References

1. Thaddeus S, Maine D. Too far to walk: maternal mortality in context. Soc Sci Med 1994; 38: 1091-1110
2. Maternity Worldwide. Maternal health in West Wollega Ethiopia: a description of the context, evaluation of service provision and recommended action to reduce deaths in pregnancy and childbirth. May 2005.
3. Maternity Worldwide. Maternal Health Needs Assessment : West Wollega. January 2015.
4. UNFPA. Skilled Attendance at Birth. Available from URL http://www.unfpa.org/public/mothers/pid/4383 (Accessed 13th November 2014).

Maternity Worldwide, Community Base, 113 Queens Road, Brighton, BN1 3XG www.maternityworldwide.org Charity Number 1111504