

**FIGO SAVING MOTHERS AND NEWBORNS PROJECT IN
MOLDOVA:**

**Beyond the Numbers - implementation of new
approaches of reviewing perinatal deaths in the
Republic of Moldova**

FINAL EVALUATION

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ACRONYMS

| | |
|-------|---|
| ANC | Antenatal care |
| APM | Association of Perinatal Medicine |
| CE | Confidential Enquiry |
| DHS | Demographic and Health Survey |
| FD | Family Doctor |
| FIGO | International Federation of Gynaecology and Obstetrics |
| IUGR | Intrauterine Growth Restriction |
| MAM | Moldovan Association of Midwives |
| MDG | Millennium Development Goals |
| MOH | Ministry of Healthcare |
| MOHSP | Ministry of Health and Social Protection |
| PHC | Primary Health Care |
| RCM | Royal College of Midwives (UK) |
| RCOG | Royal College of Obstetricians and Gynaecologists (UK) |
| SBA | Skilled birth attendant |
| SIDA | Swedish International Development Co-operation Agency |
| SMI | Saving Mothers Initiative |
| SMN | Saving Mothers and Newborns Initiative |
| SOGC | Society of Obstetricians and Gynaecologists of Canada |
| SOGM | Society of Obstetricians and Gynaecology of the Republic of Moldova |
| WHO | World Health Organization |

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EXECUTIVE SUMMARY

Introduction

This final project evaluation reports on the *Beyond the Numbers* project in the Republic of Moldova, which implemented perinatal mortality audits as a means to improve maternity and newborn care, one of the projects of the FIGO Saving Mothers and Newborns Initiative launched in 2006, with the goal of reducing maternal and newborn morbidity and mortality.

Key Achievements

The project has been highly successful in achieving the stated objectives with a modest budget, and this has contributed to achieving the overall purpose. In conjunction with other related projects, perinatal mortality among all babies, specifically among newborns with a gestational age of >37 weeks of age and with a birth weight of ≥ 2500 g perinatal deaths have reduced by 10% from 49% in 2006 to 38.1% in 2010.

Perinatal Confidential Enquiry Audit tools have been developed and approved by the Ministry of Healthcare, and a National Enquiry Committee has been established to organise an average of 12 audit review sessions a year. The non-punitive approach to the anonymised death reviews enables full and open participation by clinicians who feel empowered to share information and make assessments based on facts, free from the fear of blame. A mechanism for multi-disciplinary working has contributed to the greater involvement of midwives as experts in the audits, increasing their confidence and strengthening their professional status. The role of other cadres of health professionals has been recognised in the management and prevention of perinatal deaths; social workers and psychologists are also involved in the audit process to improve the quality of data to inform expert sessions.

Importantly, standards of care have improved as a result of the audits through the development of protocols and guidelines, which are updated as evidence informs the need for review. The inclusion of midwives as experts in the audit sessions facilitated these improvements.

The project team has enabled transfer of knowledge across borders to neighbouring countries, and through decentralisation of knowledge to district-level through inclusion of professionals from across the country, who have sought support in amending locally-used tools for the review of perinatal deaths in the district.

Challenges

Legislative restrictions on midwives roles limit the extent of midwives autonomy, and the project will need to ensure that representation of midwives as experts in audit meetings remains high. Introducing facility-based reviews was not acceptable in this context for fear of punitive measures being taken against individual clinicians.

Key Lessons Learned

Key components contributing to the success of the project include a motivated and strong country team provided in the context of strong technical assistance from other organisations. The obstetric mentoring worked very well, but this was due to individual commitment and motivation rather than any mechanism that existed between professional twinning societies. A midwife mentor would have contributed towards the further success of this project. Although no exist strategy was formalised, the project is likely to be sustained and built-upon due to strong in-country leadership. Confidential Enquiry approaches are appropriate in this context and has

lent itself to improvements in care.

Key recommendations

- Advocate for and enable stronger links between the twinning societies in the north.
- Assigning a midwife mentor could contribute to increasing the profile and scope of midwifery in settings where medical models of care prevails.
- Ensure exit strategies are formalised and address sustainability of achievements and promote transfer of knowledge.

1. INTRODUCTION

This evaluation assesses the achievements of the project, *Beyond the Numbers: implementation of new approaches of reviewing perinatal deaths in the Republic of Moldova*, which ran from early in 2006 to October 2010.

Beyond the Numbers is one of ten International Federation of Gynaecology and Obstetrics (FIGO) projects that are part of its *Saving Mothers and Newborns (SMN)* Initiative. The project runs through to June 2011, and the other participating countries are Haiti, Kenya, Kosovo, Moldova, Nigeria, Pakistan, Peru, Uganda, Ukraine and Uruguay.

The report is structured into the following sections (Box 1)

Box 1: Signpost for report sections

| | |
|-----------|--|
| Section 2 | Sets out the <i>background</i> to the Saving Mothers and Newborns Initiative and the country specific project. This is presented in detail for completeness. |
| Section 3 | Outlines the evaluation <i>methodology</i> . |
| Section 4 | Summarises the <i>project achievements</i> . |
| Section 5 | Summarises the <i>project challenges</i> . |
| Section 6 | Reviews <i>project management</i> , including relationships between FIGO and the Moldovan project team. |
| Section 7 | Lists the <i>lessons learnt</i> . |
| Section 8 | Provides the <i>conclusion</i> and <i>recommendations</i> . |

2. BACKGROUND

2.1 FIGO

FIGO brings together professional societies of obstetricians and gynaecologists on a global basis in order to promote the well-being of women and their children and to raise standards of practice in obstetrics and gynaecology. The successor to FIGO's Save the Mothers Initiative, The Saving Mothers and Newborns (SMN) Initiative secured 4.6 million US dollars, of which a large part was contributed from the Swedish International Development Co-operation Agency (SIDA)¹.

2.2 Saving Mothers and Newborns Initiative

The SMN Initiative was launched in 2006 with the goal of reducing maternal and newborn morbidity and mortality, and to contribute to the achievement of Millennium Development Goals (MDG) 4 and 5 (Box 2). Its secondary objectives include:

1. Strengthening the capacity of national professional societies to engage in maternal-newborn health through the design and implementation of projects in the field;
2. Strengthening cooperation between FIGO and national societies, and also between societies in regions or of different economic levels;
3. Strengthening cooperation between national societies and national stakeholders involved in safe motherhood and newborn health;
4. Increasing the credibility of national societies locally to provide technical support to Ministries of Health and national professional councils.

Box 2: Millennium Development Goals

MDG 4: Between 1990 and 2015 reduce by two thirds the mortality rate among children under five.

MDG 5: Between 1990 and 2015 reduce by three quarters the maternal mortality ratio.

The Initiative aims to build and sustain the capacity of obstetrics, gynaecology and midwifery societies in participating developing countries to conduct essential projects relevant to the promotion of safe motherhood and the improvement of neonatal health.

Two key features of the initiative are: 1) north-south partnerships through the establishment of twinning mechanisms between obstetrics, gynaecology and midwifery societies in developed and in the implementing countries; and 2) increasing women's access to new, cost-effective and evidence-based technology for the reduction of maternal and newborn mortality.

2.3 The Moldovan Context

The most recent Demographic and Health Survey (DHS) in Moldova provides a useful baseline for the project, and a description of the organisation of maternity services in Moldova (see Box 3).

Antenatal care (ANC) coverage in Moldova is high, with almost 98% of women receiving at least one ANC visit, and 88% receiving at least four ANC visits, and 99.5% of deliveries were attended by a skilled birth attendant (SBA) (DHS, 2005). However, the vast majority of women (97%) are seen by medical doctors rather than midwives or nurses. Further reflecting the medicalisation of midwifery, 99% of deliveries occur in a health facility but only 8.8% of deliveries were attended by a midwife or other SBA.

¹ From WHO website, FIGO Saving Mothers and Newborns Initiative (SMN), updated on 18 June 2010, available from URL: <http://www.figo.org/projects/newborns> [Accessed on 22 February 2011].

Box 3: Overview of maternity service organisation in Moldova

Health care for mothers and children in Moldova is provided by means of outpatient health facilities at the primary health care level and, for more complicated medical needs, a network of consultative and specialised hospital establishments. The primary health care network is organised according to geographical-territorial criteria and includes a service package with costs covered by government mandated medical insurance. Since 1997, antenatal care has shifted from services provided by obstetrician-gynaecologists to services provided by a Family Doctor. Pregnant women typically access antenatal care through primary health care facilities, namely, family doctor centres, health centres and family doctor's offices. This reform in primary health care has contributed to improving access to primary health services by dedicating finances to pay for the services, the cost of which constitutes over 30 percent of the overall budget for medical care.

Delivery care is provided by [thirty eight] obstetrical-gynaecology units and maternities located in district and municipal hospitals, as well as specialised (tertiary) health care establishments, such as the Institute for Scientific Research in the field of Mother and Child Health Care. Moderate and severe complications in maternal and neonatal cases are referred to the tertiary centres (DHS 2005).

Two institutions manage the delivery of women with HIV and most HIV antenatal care is managed by the Family Doctors in a setting where the prevalence of HIV is estimated to be 0.4% among adults age 15-49y; In 2009, estimates suggest that 82% of HIV positive women who needed antiretroviral therapy for prevention of vertical transmission received it (109 of 113), a decrease in the proportion from the previous year's estimate of 94% (UNAIDS Country Progress Report, 2009).

Family Doctors (FDs) have only been in existence as a specialist cadre since the late 1990s; some FDs originated as dentists or other specialties. With relatively little experience, some FDs fear full responsibility of pregnant women and there are consequently some inappropriate referrals to obstetricians.

In 2001, Moldova launched the "Making Pregnancy Safer Initiative" in one effort to strengthen midwifery. The efforts Moldova put into the reform of its perinatal care system were honoured by a significant reduction in perinatal mortality indicators between 1997 and 2005: perinatal mortality decreased from 14.3 to 11.5 per thousand live births, neonatal mortality from 9.3 to 7.5 per thousand live births and maternal mortality from 50.5 to 21.2 per 100.000 live births [WHO, European health for all database]. (see Box 4).

Box 4: Overview of policies and programmes supporting maternal and child health in Moldova (Adapted from DHS, 2005 and supplemented by Dr Ala Curtenau)

Health care provision for mothers and children is a priority for the Ministry of Health and Social Protection. The Ministry of Health and Social Protection (MOHSP) has implemented an array of national and subnational programmes aimed at ensuring access to quality health care for all children and pregnant women in order to reduce the incidence of morbidity, disability, and mortality. Under the United Program, children under age five benefit from subsidised medical supplies for outpatient treatment, while pregnant women are provided free iron and folic acid prophylaxes during pregnancy.

The implementation of the National Perinatology Programme and of the Global WHO Initiative “Making Pregnancy Safer” has resulted in strengthening the regionalised system of perinatal care, providing quality health services, and institutionalising a perinatal supervision system. Moldova was selected as a pilot country in the European region, launched at an Orientation and Planning meeting held in Chisinau, in January 2002. The audit planning continued at a regional workshop for *Beyond the Numbers* in Issyk Kul, Kyrgyzstan in May-June 2004, where the Confidential Enquiry approach for reviewing Maternal and Perinatal Death and near miss cases in pilot facilities was identified as the next step for Moldova.

The Republic of Moldova health sector reform efforts towards an improvement of maternal and child health assisted by UNICEF and WHO started 1997, with the ‘National Programme of Improving the Perinatal Medical Assistance’ that ran to 2002. This was followed by a second five year phase up to 2007 (‘Promotion of the Qualitative Perinatal Assistance’). The main emphasis of the reform efforts were to:

- elaborate and implement national policies in the area of perinatology;
- strengthen institutional capacity;
- evaluate the quality of perinatal services in maternities and primary health care;
- elaborate evidence based clinical protocols;
- introduce a regionalised system of care;
- implement cost-effective and evidence based procedures promoted by WHO and UNICEF;
- improve technical skills and capacities of human resources;
- develop and implement a health information system including regular monitoring and supervision; and
- involve families and community in solving health issues.

The “National Strategy for Reproductive Health” was approved on August 26, 2005 by Government Regulation no. 913. The main objective of the Strategy is to uphold the rights of citizens to achieve their reproductive desires, and to assure women their health in childbearing years.

In December 2010, the MOHSP reversed the legislation that previously excluded midwives from the role of primary health care. This goes some way to increasing the role of midwives in normalising and de-medicalising maternity care. However, doctors remain legislatively responsible for the care of women during pregnancy, childbirth and the postnatal period.

Despite the excellent SBA and ANC attendance rates, at the start of the project, the maternal and perinatal mortality rates were among the highest in the region², with the overall perinatal mortality rate³ of 19 per 1,000 pregnancies (DHS, 2005). Whilst the majority of infants born alive weighted 2500 g or more (DHS, 2005), around half the perinatal deaths that occur are among babies of this birth weight.

² Bring, M. (2005) *Strengthening midwifery in the Republic of Moldova*. Available from URL: http://www.euro.who.int/_data/assets/pdf_file/0008/128726/MDA_article_midwifery.pdf [Accessed on 22 February 2011]

³ Perinatal mortality is defined as the level of mortality from the time of prenatal viability (at the time of the DHS, this was the late foetal period beginning at 28 weeks of gestation) through labour, delivery, and the early neonatal period (i.e. the first seven days of life). Estimates presented here include stillbirths.

2.4 Saving Mothers and Newborns Project in Moldova

Project preparation

Recognising the need to tackle the issue of perinatal mortality, the goal of the *Beyond the Numbers* project is to reduce perinatal mortality amongst babies with a gestational age of more than 37 weeks and with a birth weight of 2500 g or more in the Republic of Moldova.

Box 5: Overview of preparatory phase of project, Adapted from Kate Henderson-Nichol (2008) Interim review of FIGO's *Beyond the numbers: implementation of new approaches for reviewing perinatal deaths in the Republic of Moldova*.

A group of specialists from Moldova participated in a regional workshop entitled, '*Beyond the numbers*.' A national conference, also entitled, '*Beyond the Numbers*' was held in Chisinau in January 2005 as a joint effort by the MOH, WHO and UNICEF. Participants were informed about the perinatal mortality audit and the opportunities and potential for Moldova of its implementation. To support the Confidential Enquiry into Perinatal Deaths, a framework of recommendations was devised, along with a draft of the Standards for Best Practices for assessing cases of perinatal death. At the invitation of UNICEF, Professor Jason Gardosi from the Perinatal Institute in Birmingham, England, was welcomed at the national conference where he facilitated some workshops. Professor Gardosi became the co-mentor of the project for the Confidential Enquiry into Perinatal Mortality, with Professor Bergstrom, and shortly after became the sole mentor. In November 2005, a team of specialists from Moldova visited the Perinatal Institute in the West Midlands, UK, where they learned of the UK experience in conducting Confidential Enquiries in perinatal mortality.

In early 2006, the concept of the perinatal audit and logistics for implementing a Confidential Enquiry were reviewed and pilot facilities, where the project started in 2006, were selected. The three pilot sites were: i) 3rd level services at the Mother and Child Health Care Research Institute (MCHCRI), ii) Chisinau 2nd level Perinatal Centre and iii) Balti 2nd level Perinatal Centre, which provide care for 34% of all deliveries and where 50% cases of perinatal deaths occurred at the time of the interim report.

Project implementation

Working with the Moldovan Association of Midwives (MAM) and the Association of Perinatal Medicine (APM), the Society of Obstetricians and Gynecologists of the Republic of Moldova (SOGM) have been implementing perinatal mortality audits as a means to improve maternity and newborn care. The confidential enquiry into perinatal deaths is a participatory, multidisciplinary, no blame, confidential and evidence-based approach and the specific aims are to:

- determine the real causes of the death;
- determine factors that lead to the death;
- analyse if management was according to standards;
- propose solutions to prevent fatal events.

The main principles of the approach to the audit were to ensure anonymous case presentation, confidentiality of discussions and application of evidence-based medicine to apply to future case management. The project started in 2006 with national stakeholder meetings to agree on methodology, standards and develop tools for case review and audit⁴. These include:

- evidence based clinical standards for antenatal, intrapartum and neonatal care,
- proformas for confidential enquiry panel assessment of case notes and,
- verbal autopsy questionnaire for interviewing mother/family with perinatal loss,
- national classification of intrapartum and early neonatal deaths.

Key activities for this project included training in audit, implementation of audit

⁴ Described further in Stratulat, P. et al (2010) Improving quality of perinatal care through confidential enquiries in the Republic of Moldova in *The European magazine for sexual and reproductive health*; No.70.

committees, review of cases and dissemination of information. The stated purpose of the project was to improve obstetric and neonatal services and care through the implementation of Confidential Enquiry of perinatal deaths in fetus/newborns with birth weight ≥ 2500 g and gestational age ≥ 37 weeks. The stated outputs of the project were:

Output 1: To increase the capacity of the Partner Societies in the analysis of the perinatal death cases and the elaboration of the recommendation for their reduction;

Output 2: To increase the number of partner societies' members that are able to apply the cost-effective interventions recommended by WHO in the perinatal care for the improvement of perinatal practices;

Output 3: To increase the role of midwives in offering antenatal and intrapartum care.

The table in annex 4 sets out the measurements of the indicators that report to these outputs.

3. EVALUATION METHOD

This desk-based evaluation took place in the second half of February 2011, and a mix of qualitative and quantitative data informed the findings.

The consultant reviewed project documentation provided by FIGO and the project implementers between 14-16 February. FIGO provided a list of stakeholders to interview, and this was supplemented by the consultant. Telephone interviews were semi-structured and conducted between 22 February and 01 March 2011. Additional information was supplemented by key informants by follow-up telephone calls or email communication.

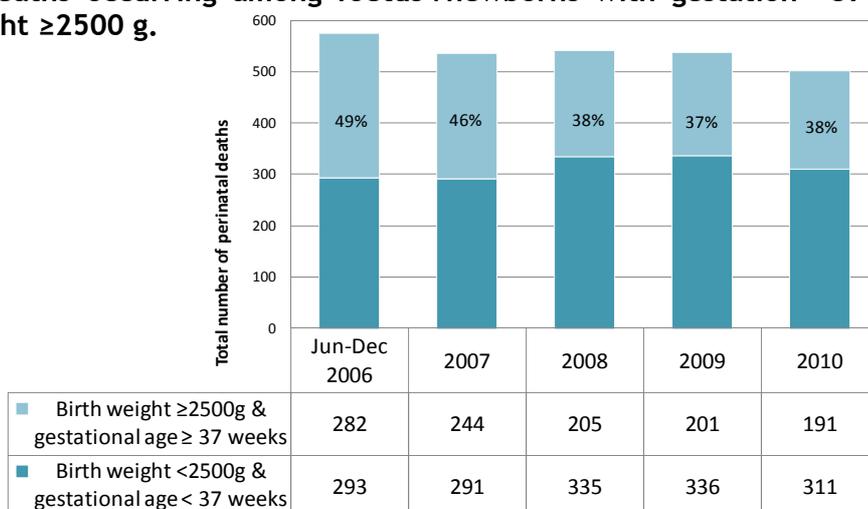
Triangulation of information was difficult to establish without a country visit to review records and beneficiary participation, and was established through key informant interviews with data provided in reports. The report was reviewed by all key informants for verification and comments prior to submission to the commissioning body, FIGO.

4. PROJECT ACHIEVEMENTS

4.1 Achievements related to goal

Overall, the project has been highly successful in meeting the stated outputs and is likely to have contributed considerably to achieving the overall goal. Perinatal deaths among newborns with a gestational age of >37 weeks of age and with a birth weight of ≥ 2500 g have reduced from 49% in 2006 to 38.1% in 2010. Reports also suggest that the project, in conjunction with other activities⁵, has contributed to an overall reduction in perinatal mortality among all babies, as shown in figure 1, below.

Figure 1: showing total number of perinatal deaths from 2006-2010 and proportion of deaths occurring among fetus'/newborns with gestation >37 weeks and birth weight ≥ 2500 g.

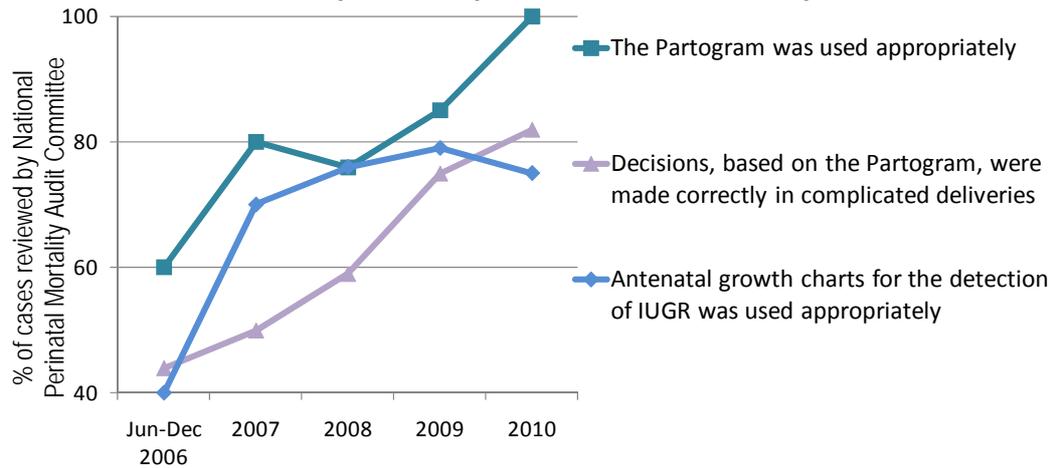


The partogram was updated by national specialists and now includes a section for monitoring labour in the second stage which was not previously included and birth records have been revised and standardised to enable more accurate identification of issues in the audit sessions. The increased appropriate use of these low-cost technologies has been demonstrated through the perinatal audit mechanism over the duration of the project life, and has led to the ability to implement appropriate interventions by health care providers (see figure below). For example, the use of the partogram enabled identification of problems and appropriate clinical decision-making in twice as many complicated cases over the project life (in 44% of perinatal mortality cases pre-2007 compared to 82% of cases in 2010⁶).

⁵ Specifically, the Swiss Tropical Institute collaboration modernised the perinatology system and implement the anonymous evaluation of near miss cases (SICH Update, June 2010).

⁶ Stratulat, P. Curtenau, A. et al. (2010) *Quality of perinatal health care assistance from the Republic of Moldova. Results of the assessment studies of knowledge, attitudes and practices of pregnant women, mothers and medical staff from the maternal and child health care service.*

Figure 2 showing increased use of appropriate low-cost technologies for monitoring risk factors in the antenatal and postnatal period in Moldova from pre-2007 to 2010.



4.2 Key achievements relating to outputs and SMI objectives

The key achievements that have contributed to the attainment of the Saving Mothers and Newborns project's outputs (stated in section 2.4) and the Saving Mothers Initiative (SMI) objectives (listed in section 2.2) are listed below. Where possible, examples have been given, but the desk-based nature of this evaluation makes it difficult to illustrate the successes with narratives.

- **Perinatal Confidential Enquiry Audit tools** have been developed and approved by the Ministry of Health. The confidential and anonymised audit tools & mechanism⁷ have been used centrally to review 257 perinatal cases in the past five years. The mean number of cases reviewed per year has increased to 56 over the past four years compared to just 23 cases before 2007. On average, 12 audit meetings have been held each year since 2007, compared to just five before 2007.
- **Data collection, management and analysis** has been achieved to a high quality: The verbal autopsy questionnaire was amended and the introduction of multi-disciplinary team working has led to improved collaboration through meetings, and this in turn has resulted in the verbal autopsy forms now completed fully and submitted in a timely manner (elaborated in box 6, overpage).

⁷ Cases discussed during audit sessions are presented anonymously, so the name of newborn, name of doctors, name of locality, etc. are hidden by using white ink on the documents. The key point in this method is that the panelists examining the case have not been involved in the care and do not even know the identity of the patient or clinical staff. As a result, they are able to give an external assessment which is: independent, objective and unbiased; constructive and blame free rather than punitive; able to look at individual as well as systems issues such as protocols, processes, staffing and equipment.

Box 6: Examples of how the project has overcome challenges in data collection and analysis encountered in the first year of the project

Relating to documentation:

- The perinatal death documentation submitted to the National Committee was often incomplete, making the Confidential Enquiry process inadequately informed. As a result in the project, the Standardised Birth Notes were elaborated, and a section to monitor the second stage of labour was developed, approved by the MOH and implemented, leading to improved quality of data obtained and care during the intrapartum period.
- The Verbal Autopsy Questionnaire did not initially provide exhaustive answers about the quality of care during the pre-hospital period. The Verbal Autopsy Questionnaire was revised in the second period of the project, and this now enables more accurate assessment of cases.

Relating to multi-professional team work:

- Persons responsible for Confidential Enquiry at local level did not previously monitor all perinatal death cases and timely submission of primary documents to the National Committee, caused delay in reviewing cases and therefore of implementing appropriate action. The project team lobbied hospital administration formally, and steps were taken to encourage more timely submission of documentation, leading to fewer delays in the audit process.
- In Moldova, psychologists are present only in some maternity facilities (the 3rd level referral maternities and some 2nd level maternities). Initially, psychologists who were responsible for completing Verbal Autopsy Questionnaire in stillbirth cases, often failed to talk to the woman suffering a perinatal bereavement due to early discharge from the facility. Thus, National Audit Committee decided to involve midwives in the process of discussions with mothers / families and in data collection.

Relating to effective Committee meetings:

- Constructive communication between some experts delegated to present death cases required prior to Committee meetings was not initially effective. This lack of collaboration between members of the team led to incomplete case reports and resulted in additional time to be contributed to cases by all team members. Changes were made in the pre-meeting communication and planning strategy so that the Committee Secretary sent all necessary documents 10 days in advance of the audit session, and the delegated experts were provided with a conference room to carry out these pre-audit discussions.
- In reviewing antepartum perinatal deaths, some experts working in maternities were quick to inappropriately assert blame upon the Family Doctor or family deviating from the actual causes contributing to the death. With difficulty, complete presentation of the context and thorough reviews and discussions of available evidence now leads to

- **Increase in the role of midwives** by including midwives as expert reviewers at audit meetings. Recognising the role of midwives in improving standards of care has led to greater recognition of the role they have as a profession in preventing perinatal mortality. This is supported by the recent legislative changes to include midwives in primary health care (PHC). Midwives also reportedly felt that their *professional skills were increased* through the frame of the audit seminars and discussions.

During the 2010 June conference on *Quality in Perinatal Health* (see bullet below on 'Transfer of Knowledge'), a workshop on midwifery issues was led by the project's Midwife Co-Director, Ms Zavtoni Oxana, with support from Ms Kate Morse, Midwife from the Perinatal Institute, identified several mechanisms that could strengthen the midwife's role. A key mechanism identified was a change in the law to reintroduce midwives to the PHC teams which has now been done and is to be implemented this year. Other activities suggested that could have been supported by a Midwife Mentor were identified (elaborated in section 5.1 of this report).

- **Improvements in the standards of care** through multi-disciplinary audit sessions and a no-blame approach have been achieved (see box 7). This is evidenced by data obtained from the results framework (annex 4), elaborated in figure 1. This is the first time that perinatal cases were discussed across the professions.

Additionally, fifteen national standardised protocols have been developed, for example, on: neonatal sepsis; neonatal jaundice; neonatal polycythaemia; neonatal congenital heart malformations; cardiac arrhythmias in newborn; diabetic foetopathy; management of pre-eclampsia/eclampsia, IURG and cord pathology. Nine short neonatal protocols have been elaborated according to the Ministry of Health Care (MoH) rules, published and distributed to the neonatologists and paediatricians of the country. Twelve of the protocols have been reviewed and revised.

Box 7: the Perinatal Confidential Enquiry (CE) audit tools have led to improvements in standards of care by enabling the following activities:

1. To determine the real cause of death according to the 'ReCoDe' classification* for antenatal causes of deaths and to the national classification for intrapartum and neonatal causes of deaths
2. To determine & classify factors that led to the cause of death into the following categories: a) related to the woman/ family / social factor; b) related to the access to care, c) related to the specialty / profession, d) other factors.
3. Analyse whether case management was conducted according to standards and therefore identify an appropriate intervention.
4. Following each case review, the Head of CE Board after discussions always summarises what the correct course of action should have been to avoid a perinatal death. In addition, after periodic analysis of the accumulated cases, general recommendations are offered for a series of cases caused by the specific cause of death or series of cases that took place during the specific period of time when deaths occurred (antenatal, antepartum, early neonatal periods).

* Classification system developed by the Perinatal Institute according to relevant condition at death - ReCoDe. (Gardosi, et al. 2005, BMJ 2005; 331:1113-7).

- **Transfer of knowledge** in-country and between countries, through including members from professional societies in audit training and sessions. Members of professional societies from maternities⁸ across the country have requesting support in the revision of their own locally-used tools for conducting perinatal audits.

Additionally, the Project organised and hosted a two day international conference entitled *Quality in Perinatal Health* about prenatal audits in the June 2010 supported further by the Swiss Tropical & Public Health Institute. This included physician and midwife expert support and participation and support from the Perinatal Institute, which boosted the conference credibility and attracted international attendance from neighbouring countries. This resulted in requests from members of professional societies made to the project team to share their expertise in neighbouring countries and further afield in Central Asia; for example, Professor Stelian Hodorozea, the Project Researcher, has travelled to Tajikistan, Kyrgystan, Russia, Ukraine and Kazakstan to present and implement maternal mortality and morbidity audits. In parallel, he has raised awareness among professionals and policy makers about the project's experience in perinatal audit.

- **Decentralisation** of improved auditing mechanisms has occurred to a degree: the CE Audit developed through this project remains a centrally managed and conducted process. However, the involvement of health professionals from across the country has stimulated district health authorities to request support from the team to help improve reporting and investigation mechanisms at district level. This has

⁸ A *maternity* is what is locally referred to as a facility that provides maternity care where there are trained skilled birth attendants. There are 38 across the country.

reportedly led to improving the quality of reporting and improved standards of care at district level facilities⁹.

- **Multi-disciplinary working and engagement** extends beyond the inclusion of midwives to perinatal audits: as a result of recognising the need for psychological support for women and families affected by perinatal death through the audit process, a psychologist is now included to maternity teams to support families who have suffered a perinatal bereavement - they also help to collect information for the audit. As a result of recognising the impact of social context to perinatal mortality through the audits, a social worker is also included to the maternity team, and these are new in the country.

4.3 Sustainability

The Moldovan project team has demonstrated strong motivation and leadership, and the Moldovan individuals who have been key stakeholders in this project are for the foreseeable future likely to remain in their posts. Through the process of implementing this project, a wide professional engagement has been achieved, with over 300 clinicians being instructed on the audit process. Additionally, the wider activities of the team in relation to the health of mothers and newborns have led to other strong supportive partnerships and collaborations, for example, the Swiss Tropical and Public Health Institute that is working to modernise the perinatology system, and with the Swiss Agency for Development and Cooperation to scale up the national adolescent health initiative¹⁰. Thus, although there is no record of any planning for next steps, or a documented exit strategy in the proposals or reports, the activities and achievements resulting from this project are very likely to be sustained in a meaningful way.

The project Team decided, along with the mentor at his last visit, that the coordinating role for the organisation of the National Enquiry should be maintained where the current expertise resides at the national level. Thus, the audit meetings of the intrapartum and early neonatal cases will be kept at the national level, which will assure participants of confidentiality. In steps to decentralize the process, three Confidential Enquiry sub-committees for antepartum death cases will be created in three regions of the country (North, Centre and South), in a process to delegate responsibility to the local level where primary health care sits, and where most of the antenatal stillbirth cases are detected. The discussion and analysis of these stillbirth cases from different regions will take place in the presence of experts from the national level.

⁹ At sessions that have taken place in other republican perinatal centres, representatives of local public administration have been invited to review sessions relating to perinatal or antepartum death, where conclusions and recommendations of experts are shared, including those involved in providing social services to women / families from vulnerable groups.

¹⁰ SICH Update, June 2010.

5. PROJECT CHALLENGES & LIMITATIONS

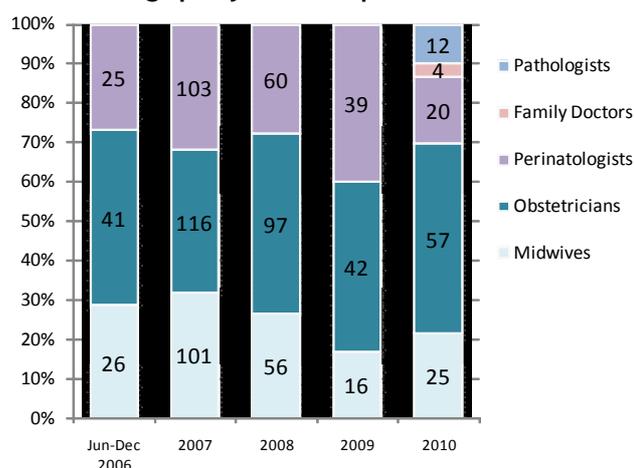
Whilst the project has made many significant achievements, it has also encountered challenges. In some instances the project has been able to overcome these (see box 6); other challenges however remain to a greater or lesser extent.

5.1 Participation by Midwives

Prior to the implementation of the project, case investigations were doctor-led and managed. At the start of the Confidential Enquiry, it was difficult for midwives to actively participate in discussions due to *perceived* difference in status between cadres of health professionals attending the audit sessions. However, over time, midwives have become more confident in being active contributors to the audit meetings as experts.

Midwives are key to addressing change when standards of care are identified as a contributing factor to perinatal mortality, and as such, their participation as experts in audits is pivotal. Figure 3 shows the proportion of midwives compared to other professionals who attended audit meetings over the 5 years of the project; in 2007, midwives represented almost a third of experts at audit sessions but only around a fifth in the last two years of the project (figure 3, see also annex 6, table c). Midwives were invited to participate in the discussion of intapartum stillbirths and neonatal deaths, but not audit meetings where antenatal stillbirths were discussed. Whilst this positively demonstrates increased multi-disciplinary attendance, care needs to be taken to ensure that the role of midwives in the audits does not become marginalised.

Figure 3 showing the number and proportion of health professionals participating in perinatal audit meetings per year from pre-2007 to 2010.



5.2 Restrictions in midwifery autonomy

In parallel to the introduction of Family Doctors as a cadre in the late 1990s, the role of midwives was eliminated from PHC, further medicalising a doctor-led model of care for pregnant and postpartum mothers. Whilst the project enabled the increased role of midwives as professional experts through the audits, and as change agents in improving standards of care, legislation still restricts the rights and responsibilities of midwives, and this has limited the project somewhat in expanding the extent of the audit.

Recent changes in legislation reintroduce midwives into primary health care setting, but the law stops short of giving them responsibility as autonomous practitioners in managing physiological pregnancies, deliveries and postnatal cases. Thus, implementation of the recommendations made in the interim report would not have been possible within the life-time of the project¹¹. The project has contributed greatly

¹¹ The interim evaluation of this project highlighted the need to improve early booking of women in antenatal care to enable greater opportunities for health prevention and promotion, and other interventions to address issues such as alcohol and drug misuse, poor nutrition, low health status etc, all of which adversely affect a healthy pregnancy. Recommendations included considering a

towards changing the attitude of clinicians towards the benefits of multi-professional working and collaborations. Interviews among project clinicians, the mentor and a representative from the Midwives Association of Moldova confirm that the project has raised the profile and status of midwives as professionals and as expert contributors to the CE audits.

Whilst the project has done well in changing attitudes among clinicians at one level, evidence from related research demonstrates that there is still a need to improve the quality of information provided in Moldova to women as users of the maternity services, and this is an area where midwives could play a greater role. For example, early booking before 12 weeks gestation remains low (77% in 2008 and 78% in 2007), and other antenatal advice provided to women from doctors remains limited, and other research has found that women have not retained information adequately antenatal health promotion advice or about intranatal options¹².

There was no midwife mentor formally allocated to this project, and no professional midwifery society was twinned with the MAM. Assigning a midwife mentor to work with the MAM could in future contribute to increasing the profile of midwifery and the role of the midwife in antenatal care in the country, particularly if support was given to a dedicated advocacy effort. These efforts could contribute towards increasing the early booking rate and the quality of advice given to women in the antenatal period.

The midwives workshop in the 2010 *Quality of Care* conference identified the following activities that would strengthen the role of midwives:

- a) Lobbying by the MAM to strengthen their role and create legislative frameworks for midwifery practice and professional conduct based on the models of laws from Romania and Great Britain.
- b) Elaboration and approval of a special order at the institution level
- c) Development of local standards/protocols/guidelines for midwives that would allow midwives to assist the birth themselves. Organisation of a regional workshop for midwives to define the standards and protocols for midwives could be the basis of this.
- d) Creation of a midwifery faculty within the University of Medicine of Chisinau, creating curriculum for a period of training for 4 years in accordance with the Directives of European Union for Midwives. (Romania and Great Britain experience may serve as models from within Europe. Additionally, Canada's model of midwifery care also serves as a model where Midwives are primary health care providers and trained through a direct-entry, four year Bachelor of science).

5.3 Managing change

Introducing a new way of reviewing clinical care has been challenging in a context where there was a "*culture of following old standards and protocols*". However, the project overcame this by conducting sensitisation workshops to introduce the concept of the audits, that clearly demonstrated how confidentiality was maintained, identifying system-wide rather than individual-level errors. As an illustration of how successful this change has been, even district level health authorities have autonomously updated their reporting and review mechanisms for clinical care relating to perinatal mortality, and

pilot scheme to re-introduce community midwifery as a means of utilising midwifery expertise in antenatal monitoring and appropriate intervention to improve pregnancy outcomes for the mother and child.

¹² Stratulat. P, Curaneu, A. et al (2010) *Quality of perinatal health care assistance from the Republic of Moldova. Results of the assessment studies of knowledge, attitudes and practices of pregnant women, mothers and medical staff from the maternal and child health care service.*

some districts have approached the central audit team for support in updating their district-level tools and mechanisms.

5.4 Transfer of knowledge

The project has been limited somewhat in its ability to transfer knowledge more widely due to lack of funding for the wider dissemination of the audit to promote decentralisation out of the maternities to PHC. Currently, all cases are referred to the 3rd level referral centre (Mother & Child Research Institute). Further, due to language barriers as well as funding limits wider dissemination across borders has been limited, for example, when communication between Moldovan team members and other non Russian or Romanian speaking countries is limited.

5.5 Cultural barriers

Narrative reports state that there are no cultural barriers to accessing maternal health care in Moldova. Whilst some aspects of the former Soviet-style administrative procedures offer some benefits to health (for example, almost all women attend facilities for deliveries and uptake of antenatal HIV testing is high), paternalistic approaches to health care are likely to limit choice. More attention might be usefully given to understanding perspectives of health care from user-perspectives and engaging users and potential users (women, families, young adults, marginalized groups) in the design and management of health care.

5.6 Agreement on definitions of indicators

This is a minor point as the data collected by the project are of very high standard. There were minor inconsistencies within the data between reports (one value reported in the 2009 narrative report was different to that reported for the same year in the 2010 report¹³), and some values were incorrectly reported (eg. crude numbers missing, data reported was not quite what the indicator stated, or the denominator was not clearly specified in the report).

5.7 Facility-based reviews

The implementation of facility-based reviews (using root-cause analysis, for example) for perinatal auditing is not yet feasible in the Moldovan context. The anonymity afforded by the Confidential Enquiry process focuses more on system failure than individual clinician error. The confidence of clinicians that blame will not be apportioned on an individual basis is not yet tangible.

¹³ Amended version presented in the reporting framework of this report.

6. PROJECT MANAGEMENT

6.1 The logical framework

The project found the logframe development challenging, and although concerted support was provided, stronger support may be required in developing a log frame that can be usefully revised to suit a project's management needs.

6.2 Relationship between the project team and FIGO

The Moldovan country team demonstrated independence and strong leadership from the outset. Most of the technical support was obtained through the obstetric mentor, and communications with the mentor and FIGO were adequately maintained mainly by email communications and the routine reporting mechanism. Whilst reporting requirements placed considerable time demands on project team members, FIGO had no concerns of the management of the project and reports were always submitted in a timely manner.

The project team in Moldova found FIGO to be appropriately flexible in budgetary requests made, and appreciated face-to-face interaction with FIGO both at the Congress in Cape Town in 2010 (Professors Stratulat and Friptu, the Project Director and President of Obstetrics & Gynecology Society in Moldova, attended some valuable meetings about the SMN Project) and when the Executive Committee of FIGO was represented at the regional conference Quality in Perinatal Health in 2010 by Professor Wolfgang Holzgreve.

6.3 Twinning Mentor & Societies

Obstetric Mentor & the RCOG: The obstetric mentoring for this project has worked extremely well thanks to the personal motivation and commitment of the Mentor. Professor Gardosi became involved in the country initially at the invitation of UNICEF to help develop maternal and near miss audits in 2006. With Professor Gardosi's experience in perinatal audits, he became co-Mentor along with Professor S. Bergstrom. Early on in the project, Professor Bergstrom asked Professor Gardosi to take over as the sole Mentor. The success of the mentoring appears to be due more to the personal commitment of the Mentor to the project rather than any formal, institutional structure towards the mentoring process. The link to the Royal College of Obstetricians and Gynecologists was made through Professor Gardosi, who was retrospectively appointed as the mentor. Little support was required from the RCOG as an institution.

Midwife Mentor & the UK Royal College of Midwives (RCM): The MAM reported that legislative restrictions to midwives' role meant that within the context of this project, they felt a great deal had been achieved for midwives in Moldova. However, the MAM and obstetrician Mentor expressed a view that the project would have benefited from having support and guidance from a Midwife Mentor. This support could have, for example, provided: transmission of tools, philosophy and approaches to midwifery; support for the implementation of evidence-based midwifery into practice; and by stimulating involvement of midwives in research to contribute towards an evidence base midwifery practice in the country.

The RCM was approached by the Obstetric Mentor for support in twinning formally. An interview with the RCM person responsible for twinning revealed a desire to support such work, but the RCM appeared not to have had the capacity to offer this support. The Obstetric Mentor requested support specifically to fund the Head Midwife member of the Perinatal Institute to visit Moldova as a representative of the RCM but this had not been possible (reason unclear). There appears to have been opaque communication and there are no formal links between the twinning societies involved, and lack of a formal mechanism through which to develop such collaborations.

6.4 The evaluation

Some documentation appeared to be missing at the start of the evaluation, but thanks to a responsive project team in-country and at FIGO via the SOGC, the evaluator received adequate written evidence to inform the finalisation of the report.

7. LESSONS LEARNT

7.1 Lessons learnt for FIGO

- The success of this project is in large part due to being led by strong in-country championship through the Project Director and the in-country team with concerted support from the Obstetric Mentor, in a setting where other related strong and supportive collaborations were in place. For example, the Swiss Tropical Institute collaboration modernised the perinatology system and implement the anonymous evaluation of near miss cases, supported the research evaluating Quality of Perinatal Health Care Assistance in Moldova (2010) and the regional conference *Quality in Perinatal Health* in June 2010.
- The mentoring with the obstetrician was very productive and highly considered by the in-country team. However, this relied upon individual commitment and motivation rather than any formal mechanism between the professional societies in the north and south and with FIGO.
- Good obstetric care is contingent on good midwifery care, and the limitations of the medical model that prevails in Moldova was highlighted in the 2008 baseline report of this project: there was a missed opportunity to support the stronger involvement of a midwifery twinning society.
- Elaborating an exit strategy or plan for sustainability might help project implementers to secure funding for continuity of activities to extend the reach and scope of the project. This could include supporting the in-country team in identifying potential collaborators and donors for a subsequent phase of activity¹⁴.
- A logframe is of little value if it is not developed appropriately and updated accordingly; as such, it was possibly a mis-use of time and was likely not useful as a project management tool.

7.2 Lessons learnt for the Project

- Multi-professional working, in particular between doctors and midwives, leads to improved collaboration and outcomes in health. Involving the midwifery cadre in issues relating to maternal and newborn health is essential in improving quality of care and reducing mortality and morbidity rates.
- Confidential Enquiry approaches to investigating mortality cases is appropriate in this context to assure clinicians of a non-punitive approach.
- The Confidential Enquiry method and process itself leads to improvements in care, as evidenced by improved adherence to standards - e.g. appropriate use of partogrammes, and improved outcomes, such as reduced perinatal mortality.
- Unlike facility-based reviews, confidential enquiries encouraged participation of clinicians in reviews and allowed them to learn from the audit process.

¹⁴The Project implementers in Moldova would like to continue the collaboration with the Perinatal Institute, in particular with the development of an electronic register for high risk pregnant women and to pilot this registry in the framework of the 3rd phase on Moldovan-Swiss project on modernizing perinatal health in Moldova (2011-2014). This register would facilitate appropriate referrals of women in high risk categories to reach higher level of care (2 or 3), whilst women with no risk factors can be identified and appropriately cared for at level 1 facilities. This will reduce inappropriate referrals to the higher level maternity. This work is planned with support from the STI, but the Team would like to secure funding to continue collaboration with the Perinatal Institute, and this would offer continuity.

Additional lessons learned that the Project personnel identified include:

- Standardisation of the medical files immediately after the elaboration of the standard has been agreed is required in order to ensure expedient action;
- More audit sessions in the field are required to include a wider range of participants;
- Feedback sessions from the audits need to be conducted in the participating facilities to broaden the scope of communication of findings.

8. CONCLUSION

The project has been highly successful in achieving the stated objectives with a modest budget, and this has contributed to achieving the overall purpose. Key components contributing to the success of the project include a motivated and strong country team who received excellent high-level support from the obstetrician mentor, Professor Jason Gardosi from the Perinatal Institute for Mother and Child Health, (as a representative of the Royal Obstetricians and Gynaecologists, UK), and links to other means of support through the Perinatal Institute. Additionally, the project context was enabling, and despite legislative barriers to extending the role of the midwife, strong technical assistance from other organisations contributed to achieving the goal of reducing perinatal mortality.

In summary, the added value of the FIGO project includes:

- The development of perinatal audit tools with strong support from the project mentor which enables identification of appropriate interventions required to improve standards of care.
- Updating and revising medical records for the intranatal and postpartum period (birth record), enabling identification of potential risk factors for women by data standardisation.
- Modernisation of partogrammes to include a section for monitoring the second stage of labour (previously only used in the first stage of labour), and including graphical illustrations, making it easier to identify the need for intervention. Monitoring of labour was previously only recorded as a narrative.
- Improving documentation tools for pathology of perinatal deaths so that expert analysis is better informed.
- Positive changes in management of cases such as breech presentation, cord pathology and intrauterine growth restriction (IUGR) monitoring as a result of the audit sessions.
- Collaboration across borders has been strengthened through attendance by international-regional experts through the project, and this resulted in invitations by other countries for the Moldovan team to present their audit as a case study.
- The project has unfortunately not secured funding for activities that would contribute towards the continued development of the scope and reach of the confidential enquiry, although the motivation of the team in country remains strong and links with the Perinatal Institute and other supporting donor activities are in place.

9. RECOMMENDATIONS

The recommendations are made in light of the fact that the project has come to an end, so those made for FIGO are for consideration when developing future projects, and those for 'the project team' are mostly drawn from the needs the team have already identified, and assume continued working and collaboration outside of the framework of the *Beyond the Numbers* project.

9.1 FIGO

- Advocate for stronger links between the twinning societies in the north, i.e. between the midwives' and obstetricians' / gynaecologists' societies (RCOG and RCM in this case). FIGO could facilitate communication between the societies and consider the development of a mechanism to collaborate symbiotically in programmes where twinning is a feature.
- FIGO could engage with the International confederation of Midwives (ICM) and explore whether ICM is an appropriate organisation to collaborate with in terms of identifying appropriate mechanisms to identify Midwife Mentors for projects; assigning a midwife mentor to work with the in-country midwives association could in future contribute to increasing the profile of midwifery in settings where a medical model prevails. Such support would be usefully focussed on advocacy and the development or strengthening of supporting legislative and clinical frameworks that elaborate an autonomous midwifery practice, and the revision of standards and guidelines that are evidence based.
- If a logical framework and results-based management is the preferred tool and approach for designing and monitoring projects, provide appropriate support to revise the logframe at regular intervals as well as at the development stage (as was provided during this project).
- Ensure appropriate record keeping enables all relevant documents to be sourced chronologically, including documenting any changes in the project approach or proposal.

9.2 The project team

- Sustain the auditing sessions regularly and instil them as a routine part of clinical reflective practice.
- Sustain the publication of promotional materials for women and the wider population for the prevention of the causes of antenatal death.
- Advocate for strong participation of midwives in audit meetings, aiming for a minimum representation of a quarter of all professionals; seek support for this, possibly through identifying an appropriate and motivated twinning society. Lobbying by the MAM to strengthen their role and create legislative frameworks for midwifery practice and professional conduct based on the models of laws from Romania, Great Britain and to that recently developed in Canada.
- The team recognise and hope for the potential for expansion of transfer of knowledge:
 - a) both within country to the district level starting in 2nd level facilities, and then into primary health care (this will require: adaptation of tools so they are suitable for PHC level for example, to include review of cases of deaths of babies of all weights; identifying the appropriate roles and responsibilities of personnel required to lead and manage the audit processes; training of personnel from each rayon in the audit process and from this develop workshops to identify the main causes of antenatal stillbirths - this level of stakeholder participation and multi-professional working will be required to

implement appropriate interventions and raise standards of care);

b) and across borders to neighbouring countries. Cross-border collaborations can also offer an opportunity to reflect upon Moldova's own practice and ensure that complacency is avoided.

- Development of local standards/protocols/guidelines for midwives that would allow midwives to assist the birth themselves. Organisation of a regional workshop for midwives to define the standards and protocols for midwives could be the basis of this¹⁵.
- More attention might be usefully given to understanding perspectives of health care from user-perspectives and engaging users and potential users (women, families, young adults, marginalized groups) in the design and management of health care.
- The elaborated package of documents for Confidential Enquiry at the national level should be used for the analysis of the death cases at the institutional level.
- Feedback sessions should be provided at the facilities that participated in audits.
- The elaborated tools for the analysis of death cases should be introduced at the MoH level which would enable evaluation of the quality of the results of local analysis of audits.
- Continue with plans to retain coordinating role for organisation of the National Enquiry to be reserved at the national level, conduct audit meetings of the intrapartum and early neonatal cases at the national level, and establish three Confidential Enquiry sub-committees for antepartum death cases the North, South and Central regions of the country, ensuring regional panels are supported by experts from the national level.

¹⁵ Upon finalisation of this report, the Evaluator was informed that the process for developing standards for midwives has already started; the Head Midwife of the Research Institute of Mother & Child Health Care, Ms Oxana Zavtoni, has developed some institutional protocols for midwives about: normal delivery and birth, care of the newborn and rupture of membranes. Ms Zavtoni has also elaborated Terms of Reference for midwives which has been presented to the MoH along with the standards for medical procedures performed by midwives.

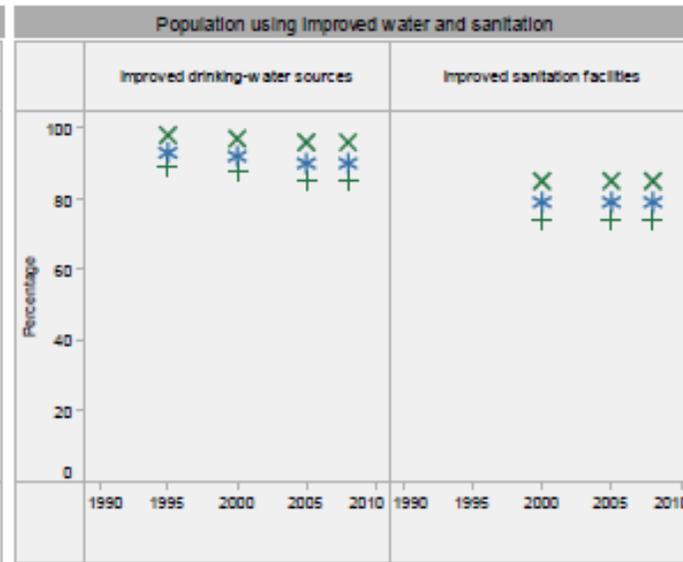
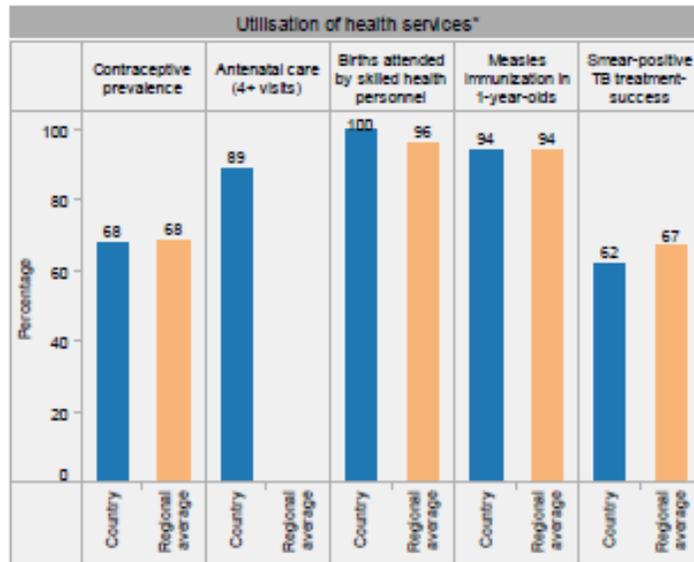
Annex 1: Summary Health Profile for Republic of Moldova



Republic of Moldova: health profile



Republic of Moldova is located in the WHO European Region.

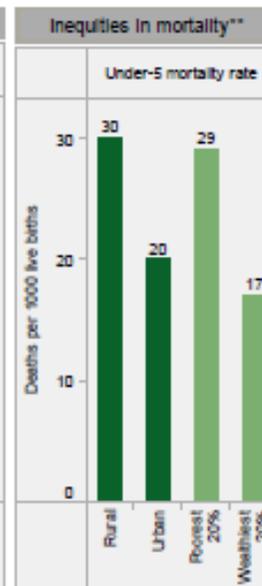
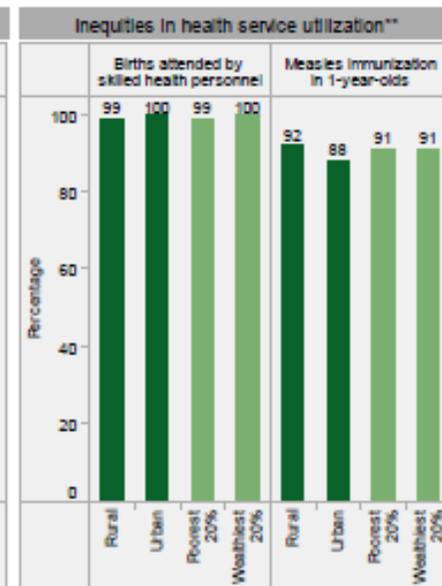
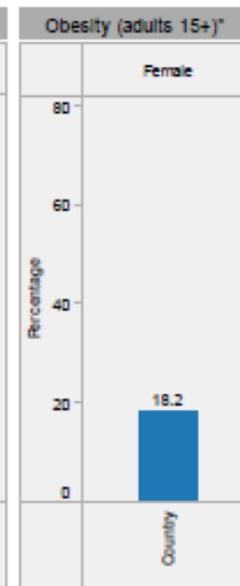
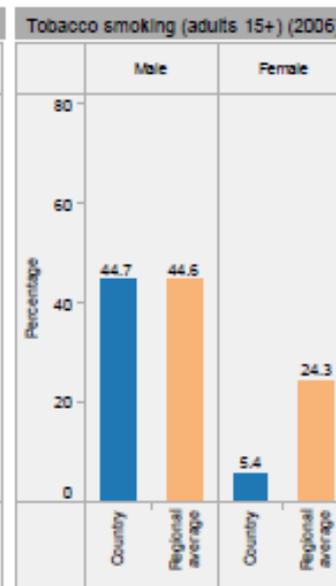
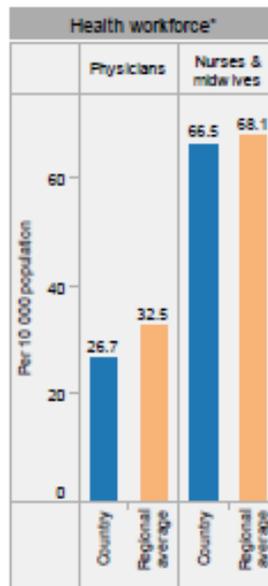


Place of residence
 X Urban
 * Total
 + Rural

* Data refer to latest year available from 2000. For specific years and references, visit the Global Health Observatory at www.who.int/gho.

** For data sources and years, see the World Health Statistics 2010.

Last update: 13 August, 2010.



Annex 2: Stakeholders contacted

| Project contacts | Name | Title | Organisation / Country | Date of interview | Level of Participation |
|---|-----------------------------------|---|---|-------------------|--|
| Project Director | Professor Stratulat Petru | Deputy Director | Research Institute of Mother & Child Health Care, Moldova | Not available | Consulted for draft report |
| Project Co-Director | Associate Professor Ala Curteanu | Head of Perinatology Dept. | As above | 22 Feb | Teleconference SSI, Numerous one-to-one email communication. |
| Country Project Midwife, Co-director | Ms. Zavtoni Oxana | Head midwife | As above | 22 feb | Teleconference SSI |
| President/ head of National Board on CE of perinatal deaths | Associate Professor Victor Petrov | Head of Scientific Obstetrical Department | As above | 22 Feb | Teleconference SSI |
| Secretary of National Board on CE of perinatal deaths | Dr Tatinana Caraus | Neonatologist, researcher, Scientific Perinatology Department | As above | 22 Feb | Teleconference SSI |
| Project Researcher | Prof. Stelian Hodorozea | Associate Professor | Testemimtanu Medical University, Moldova | 24 feb | X2 email requests for telephone / email interviews sent |
| President of Obstetrics & Gynecology Society | Prof. Friptu Valentin | Head of Ob&Gyn Dept. | As above | 22 feb | X2 email requests for telephone / email interviews sent |
| FIGO Country / Project coordinator | Ms. Moya Cringle | FIGO | Canada | 22 Feb | Telephone SSI |
| Mentor | Prof Staffan Bergstrom | IHCAR | Sweden | 14 Feb | Email response* |
| Mentor | Prof Jason Gardosi | | Perinatal Institute, UK | 01 March | Telephone SSI |
| Options baseline evaluation 16-20 June 08 | Ms. Kate Henderson-Nichol | Consultant | Options, UK | 22 Feb | Telephone interview |
| Twinning Midwifery Association | Ms. Sue Jacob | Student Services Advisor, RCM | Royal college of Midwives, UK | 24 Feb | Telephone SSI |

SSI - Semi-structured Interview

*Professor Bergstrom was travelling over the time of the evaluation, but stated that his involvement was prior to the *Beyond the Numbers* project.

Annex 3: Documents reviewed

Listed in chronological order

| Title | Author | Date (or other defining features) |
|---|--|---|
| Quality of perinatal health care assistance from the Republic of Moldova. Results of the assessment studies of knowledge, attitudes and practices of pregnant women, mothers and medical staff from the maternal and child health care service. | Stratulat P, Curteanu A, Caraus T, Buzdugan T, Mocanu-Balagura, S. | 2010, 56 pages |
| FIGO SMNH Project: Annual Narrative Report 2010 | Dr Ala Curteanu | December 2010 |
| External Review of the Moldova-Swiss Modernizing Moldovan Perinatology System Project | Gelmius Šiupšinkas & Stela Bivol | October 2010 |
| Improving quality of perinatal care through confidential enquiries in the Republic of Moldova in <i>The European magazine for sexual and reproductive health</i> ; No.70 | Stratulat, P. et al. | 2010 |
| Swiss Centre for International Health Update - newsletter | SCIH of the Swiss Tropical Institute | June 2010 (inc. summary of SCIH interventions in Moldova) |
| FIGO Saving Mothers and Newborns Initiative: Annual narrative report prepared for the Swedish International Development Cooperation Agency (Sida) | FIGO International Secretariat (Ms Moya Crangle) | March 2010 34 pages. |
| FIGO SMN Project Workplan, Moldova, 2009-2010 | Not stated | |
| FIGO SMNH Project: Annual Narrative Report 2009 | Dr Ala Curteanu | |
| FIGO SMN web site | FIGO, updated June 2010 | http://www.figo.org/projects/newborns [Accessed 22 February 2011] |
| FIGO SMNH Project: Annual Narrative Report 2008 | Dr Ala Curteanu | |
| FIGO Safe Motherhood and Newborn Health Project in Moldova: BASELINE REVIEW REPORT | Kate Henderson-Nicholl | June 2008 |
| Executive summary of the Project: "Beyond the Numbers: implementation of new approaches of reviewing perinatal deaths to Make Pregnancy Safer in the Republic of Moldova". Reporting period covered by the report: May 2006 - January 2007 | Not stated | January 2007 |
| Logical framework analysis for the first and second objectives (Moldova) | Prepared by Dr Ala Curtenau with support | Not stated on document, informed by SOGC that this was prepared in 2006. Third objective missing. |
| Beyond the Numbers: Implementation of new approaches of reviewing perinatal deaths to make pregnancy safer in the republic of Moldova: project proposal | Not stated | 37 pages |
| Summary of Nine Safe Motherhood and Newborn Projects submitted to SIDA | FIGO | 13 pages |
| FIGO Saving Mothers and Newborns initiative | Not stated | 3-page document outlining a summary of the current FIGO projects in 10 countries. |

Annex 4: TORs

FIGO Saving Mothers and Newborns (SMN) Project Final Evaluation Terms of Reference

Background:

The goal of this 4 year project has been to reduce maternal and newborn morbidity and mortality and contribute to the achievement of MDG goals 4 and 5 in a series of low income countries. Secondary objectives of the project include:

5. Strengthening the capacity of national professional societies to engage in maternal-newborn health through the design and implementation of projects in the field;
6. Strengthening cooperation between FIGO and national societies, and also between societies in regions or of different economic levels;
7. Strengthening cooperation between national societies and national stakeholders involved in safe motherhood and newborn health;
8. Increasing the credibility of national societies locally to provide technical support to Ministries of Health and national professional councils.

The project has been implemented in a number of countries wherever possible through twinning mechanisms between ob/gyn societies of developed countries with those in the implementing countries (north-south partnerships). In turn, the ob/gyn societies in the low income countries were expected to partner with national midwifery societies, Ministries of Health, civil society organizations and other relevant stakeholders to ensure harmonization of the project with the health policies and practices in the countries and the proper implementation and sustainability of the tenets of the project

The key innovation of this initiative has been to increase women's access to new, cost-effective and evidence-based technology for the reduction of maternal and newborn mortality in the countries concerned. Thus, the individual projects should have included staff training and re-training using modules such as the ALARM International program, maternal mortality audits, improvement of antenatal and delivery services, improvement of emergency obstetrics care (EOC) in selected districts, the development and dissemination of obstetric management protocols and algorithms, introduction and dissemination of partogram monitoring of labor and consolidation of the use of essential drugs like misoprostol and uninject for the prevention and treatment of post-partum hemorrhage. Projects were also intended to work with local communities to increase awareness on issues related to safe motherhood, and to promote increased utilization of interventions to reduce maternal and newborn morbidity and mortality.

Scope of work (general):

FIGO has engaged Options to undertake a final evaluation, in the form of a critical review, of each project and to provide individual country reports and an overall evaluation report to submit to the funder (SIDA). These reports will summarise and state to what extent the objectives of the project have been achieved.

Individual projects have been sited in ten countries and individual reviews are required for each project. Five reviews will take place in-country (Peru, Uganda, Pakistan, Haiti and Nigeria) and five will be desk-based (Kosovo, Kenya, Moldova, Uruguay and Ukraine). The reviews will take place between April 2010 and July 2011. Concise individual reports will be submitted to FIGO after each review. A summary report will also be prepared when all reviews are completed.

FIGO recognizes that measuring the maternal health impact of this project is not feasible. However there may be areas/examples where this has occurred. In this case, vignettes could be provided in

the report to illustrate this. This final evaluation needs to take into consideration and highlight in the report the fact that the project has had limited funding.

Objectives of each review:

- To evaluate the acquired capacity of the ob/gyn and midwifery society to conduct projects relevant to the promotion of safe motherhood and the improvement of maternal health
- To report on and evaluate any of the following indicators that were listed in the initial project proposal:
 - Improvements in access to essential obstetrical care services and new technologies
 - Improvements in access to skilled birth attendants
 - Improved health facilities
 - Lowering of maternal case fatality rate
 - The level of community mobilization and participation
 - Improvements in access to health facilities with basic equipment, supplies and medication for basic obstetrical care services and new technologies such as tamponade and uniject
 - How social and cultural barriers to maternal care have been identified and addressed
 - Improvements in collaboration and the engagement of health providers, governments, community organizations and civil society to understand why women and newborns are dying and how to prevent it
- To describe what the project has meant to each country project and professional society as well as FIGO as an organization
- To list the lessons learnt for FIGO
- To present the successes, challenges and shortcomings of the project, together with a discussion of possible recommendations for the future direction for each country's project (if the project is continuing beyond the period of FIGO funding)

Desk review to include (Moldova):

- A series of phone interviews with key individuals within the project including the partners etc. (A full list of interviewees will be provided in advance of the review).
- A critical review of any written material (narrative reports etc), and other evidence individuals in the project can cite to support the endline review.
- Interviews with mentors, FIGO staff and SMNH Committee members as necessary.

A draft interview schedule will be provided before the evaluation, together with a draft report structure. However, the consultant will need to use his/her professional judgement in deciding if there are other issues that also need to be explored and/or which key issues need to be investigated in greater depth than the draft interview schedule provides. Both qualitative and quantitative evidence should be presented in the report to support the consultant's findings.

A brief summary of the project is provided at the end of this document.

Deliverables:

Report of the individual country evaluation. (Individual country reports will be approximately 10 pages long, although this will be confirmed prior to the evaluation).

Timeline:

The evaluation will occur following completion of the project's funding from FIGO and SIDA (December 2010). It is intended that the project will have submitted final documentation which will be made available to the consultant, as will other key documents such as the report of an earlier baseline review, annual narrative reports etc.

The desk-based review will take place between 22nd and 24th February. **The total assignment should take no more than 5 days.** The breakdown of days is:

| | |
|--------|----------------|
| 1 day | Preparation |
| 3 days | Review |
| 1 day | Report writing |

The evaluation should be submitted to Options 10 days after the review. Options will provide the first comments on the draft written outputs within 2 weeks of submission and will share the report with SOGC for feedback. The consultant will finalize written outputs, responding to comments received, and submit final versions within two days of receipt of comments.

Languages:

There are no specific language requirements for this assignment.

Summary of the Moldova project:

Project title: “Beyond the numbers: implementation of new approaches of reviewing perinatal deaths in the Republic of Moldova”.

Working with the Moldovan Association of Midwives and the Association of Perinatal Medicine, the Society of Obstetricians and Gynaecology of the Republic of Moldova have been implementing perinatal mortality audits as a means to improve maternity and newborn care. The confidential enquiry into perinatal deaths is a participatory, multidisciplinary, no blame, confidential and evidence-based approach to:

- determine the real causes of the death;
- determine factors that lead to the death;
- analyze if management was according to standards;
- propose solutions to prevent fatal events.

The general aim of this project is to reduce perinatal mortality amongst babies with a gestational age of more than 37 weeks of age and with a birth weight of more than 2500 g in the Republic of Moldova. Key activities for this project include training in audit, implementation of audit committees, review of cases and dissemination of information.

Annex 5: FIGO report framework

Table a) showing Indicators reporting on Output 1: To increase the capacity of the Partner Societies in the analysis of the perinatal death cases and the elaboration of the recommendation for their reduction.

| Indicator | 16 June- Dec 2006 | 2007 | 2008 | 2009 | 2010 |
|--|----------------------|----------|----------|----------|-----------|
| 1. No. (%) of members Partner Societies^a instructed in the use of audit tools & methodology: | | | | | |
| Obstetricians | 10 (4%) | 79 (28%) | 29 (10%) | | 150 (52%) |
| Midwives | 6 (1%) | 44 (9%) | 26 (5%) | 0 | 55 (11%) |
| Perinatologists | 9 (7%) | 52 (40%) | 20 (15%) | | 100 (76%) |
| 2. No. of meetings on perinatal auditing | 5 | 16 | 11 | 8 | 13 |
| 3. Number of cases of perinatal deaths discussed (% of all perinatal deaths among newborns \geq2500g and gestational age \geq 37 weeks) | 23 (8%) | 75 (31%) | 54 (26%) | 40 (20%) | 65 (34%) |
| 4. Number of joint meetings of the societies | 1 | 4 | 7 | 3 | 2 |
| 5. Number (%) of institutions where the annual auditing has been implemented | 3 (8%) | 24 (63%) | 11 (29%) | 38(100%) | 38 (100%) |
| 6. % society members that carried out the expertise of cases at the auditing meetings: | | | | | |
| Obstetricians | 12 (4%) | 42(15%) | 33 (12%) | 39 (14%) | 45 (16%) |
| Midwives | 8 (2%) | 21 (4%) | 15 (3%) | 8 (2%) | 7 (1%) |
| Perinatologists | 10 (8%) | 33 (25%) | 31 (24%) | 9 (7%) | 12 (9%) |
| 7. No. of (%) members of societies that participated at the auditing meetings | | | | | |
| Obstetricians | 41 (14%) | 116(41%) | 97 (34%) | 42 (15%) | 57 (20%) |
| Midwives | 26 (5%) | 10 (21%) | 56 (12%) | 16 (3%) | 25 (5%) |
| Perinatologists | 25 (5%) | 103(97%) | 60 (46%) | 39 (30%) | 20 (15%) |
| Family Doctors ^b | | | | | 4 |
| Pathologists ^b | | | | | 12 |

^a Value of the denominator (total number of members in partner societies) in 2010:

 Obstetricians 285

 Midwives 485

 Perinatologists 130

^b Membership numbers not known.

Table b) showing indicators reporting on Output 2: *To increase the number of partner societies' members that are able to apply the cost-effective interventions, recommended by WHO in the perinatal care for the improvement of the perinatal practices.*

| Indicator | 16 June- Dec 2006 | 2007 | 2008 | 2009 | 2010 |
|--|----------------------|------|------|------|------|
| Proportion (%) of perinatal death cases received by the National Committee where*: | | | | | |
| 1. Antenatal growth charts for the detection of IUGR was used appropriately | 40 | 70 | 76 | 79 | 75 |
| 2. Pregnant women received counselling regarding the monitoring of the fetal movements | 20 | 50 | 55 | 71 | 75 |
| 3. The Partogram was used appropriately | 60 | 80 | 76 | 85 | 100 |
| 4. Decisions, based on the Partogram, were made correctly in complicated deliveries | 44 | 50 | 59 | 75 | 82 |
| 5. The FHR was monitored every 30 minutes during the first stage of labour | 44 | 50 | 70 | 75 | 100 |
| 6. The FHR was monitored correctly during the second stage of the labour. | 8 | 40 | 50 | 78 | 85 |
| 7. Adequate neonatal resuscitation was performed | 34 | 76 | 72 | 74 | 78 |
| 8. Cases of perinatal deaths were analysed to assess whether they achieved the required standards / protocols. | 38 | 49 | 63 | 67 | 73 |
| Proportion (%) of all deliveries in maternities where: | | | | | |
| 9. % of non-horizontal position deliveries. | 1 | 3 | 6 | 8 | 9 |

* From 1 April 2008, the definition of viability changed, so data is collected from 22 weeks gestation up to the first week of life. Prior to this, the lower limit had been 24 weeks gestation.

Figure illustrating increase in proportion of use of appropriate technologies in perinatal death cases among cases reviewed by the National committee from the baseline year, pre-2007, to end of project in 2010.

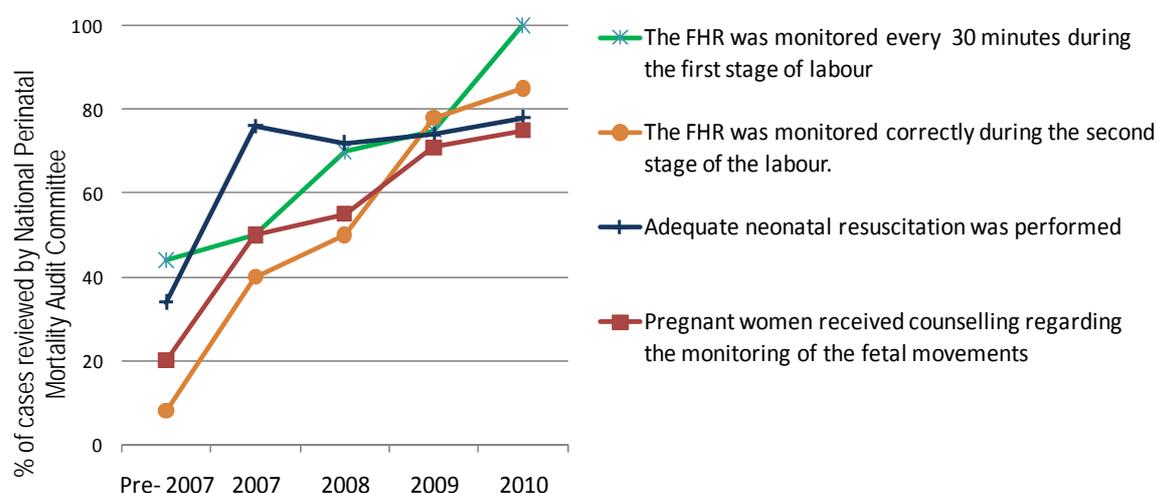


Table c) showing indicators for Output 3: to increase the role of midwives in offering antenatal and intrapartum care.

| Indicator | June-Dec 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---------------|----------|---------|---------|-----------------------|
| From the total number of AMA members (n=485 in 2010): | | | | | |
| 1. No. (%) of midwives instructed in perinatal audit seminars/meetings | 7 (1%) | 26 (5%) | 33 (7%) | 0 | 78 (16%) ^a |
| 2. Number (%) of midwives who participated at Partograph and FHR ^a updating sessions | 0 | 50 (10%) | 17 (4%) | 20 (4%) | 24 (5%) |
| 3. % of midwives who attended physiological deliveries | - | - | - | 99% | 99% |
| 4. % of midwives who attended audit sessions | 2 (<1%) | 16 (3%) | 2 (<1%) | 14 (3%) | 7 (1%) |
| 5. % of midwives who participated in the auditing sessions from the institutions. | 10 (2%) | 43 (9%) | 21 (4%) | 9 (2%) | 25 (5%) |
| 6. % midwives who have ever completed a poster-partogram | 5% | 15% | 20% | 88% | 85% |

^aFor 2010, this figure is for attendance at the dedicated session of the Quality of Perinatal Care Conference, and the 4th Congress in Obs&Gyn)

^b Foetal Heart Rate