Health in Central Asia:  
Successes in Maternity Clinics in Chuy and Issyk Kul Oblasts, Kyrgyzstan
Imprint

Published by
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

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As at
November 2013

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Commissioned by
German Federal Ministry for Economic Cooperation and Development (BMZ)
Between 2003 and 2006, KfW Development Bank implemented measures to improve the equipment and material resource base of 30 Maternity Clinics in Kyrgyzstan. Commissioned by the German Federal Ministry for Economic Cooperation and Development, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH has been implementing technical consultancy services in Maternity Clinics in Chuy and Issyk Kul Provinces as part of its Regional Programme ‘Health in Central Asia’ since 2009. The programme aims to achieve Millennium Development Goals 4 and 5, the reduction of Child Mortality and Improvement of Maternal Health.
1. Programme description

High maternal and child mortality rates pose an important problem to the Kyrgyz Republic and its commitment to achieve MDGs 4 and 5. Commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ), the financial (FC) and technical cooperation (TC) support the Kyrgyz Government in its efforts to reduce maternal and child mortality and improve access to quality healthcare services, thereby contributing to the achievement of MDGs 4 and 5. GIZ is implementing the Regional Programme ‘Health in Central Asia’ in close cooperation with the Kyrgyz Ministry of Health and a number of local and national governmental and non-governmental organisations.

In order to improve access to reproductive and maternal health services and strengthen the quality of care, implementation is closely coordinated with other international development partners, such as KfW Development Bank, the World Health Organization (WHO), UNICEF, UNFPA and USAID and the Japanese Embassy in Issyk Kul Oblast.

Within its Mother and Child Health focus, the programme comprises three intervention areas with the following objectives:

- **Health Education and Awareness Raising**
  - Increasing target population’s awareness of and involvement in reproductive health issues, including MCH
  - Improving the knowledge of reproductive age women and the young generation of reproductive health and rights

- **Quality Assurance and Accreditation**
  - Expanding access to qualified medical care in accredited health facilities, particularly to women from vulnerable backgrounds

- **Capacity Development in Maternal and Newborn Health Care**
  - Institutionalising sustainable, effective methods of perinatal health
  - Introducing Emergency Obstetric Care
  - Expanding Effective Perinatal Care measures to Safe Motherhood
  - Introducing an internal quality management system including maternal audit (analysis on maternal mortality)

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Figure 1: Components of the GIZ Regional Health Programme in Kyrgyzstan
The programme is being implemented in two pilot regions which are not covered by other international development partners such as UNFPA, USAID, UNICEF and WHO:

- **Chuy Oblast** (6 health care facilities): population 830,500 / women of reproductive age: 219,200 (MoH KR, RMIC, 2012)
- **Issyk Kul Oblast** (7 health care facilities): population 450,700 / women of reproductive age: 114,700 (MoH KR, RMIC, 2012)

The regional programme pursues a multi-disciplinary approach that aims not only to improve the clinical aspects of health care, but also to improve the managerial capacities of medical staff. Additionally, the programme cooperates closely with local/province administrations and institutions, such as the Kyrgyz State Medical Institute for Retraining and Continuous Education and the Republican Health Information Centre. Furthermore, the programme works closely with professional associations, such as the Hospital Association, the Association of Obstetrics/Gynaecologists and Neonatologists, and the Kyrgyz Alliance of Midwives. Geared towards sustainability, the programme mainstreams key activities, such as the regular revision of clinical protocols and mentoring during training. These ensure that the change processes initiated by the regional programme will be continued beyond its conclusion.

**Approach:**

In the early stages of programme implementation, poor infrastructure and problems with hospital water supply and their heating and sewage systems posed a threat to the delivery of adequate care during and after childbirth. The GIZ Regional Programme therefore initiated discussions with the Ministry of Health and governors of both pilot provinces, requesting them to provide sufficient funding to improve the infrastructure and recruit medical staff.

A round table meeting involving major decision-makers of Issyk Kul Oblast, representatives of the MoH and the National Centre of Mother and Child Health Protection was held to discuss the programme’s objectives. As a result, local authorities committed to allocate funds for the infrastructural rehabilitation of the maternity departments in all territorial hospitals between 2010 and 2012. The funds were primarily dedicated to renovations of the water supply, sanitation and heating regimes, fuel and rehabilitation of the road leading to the Oblast hospital maternity ward so as to enable timely transfers from the Rayon/territorial hospitals to the Oblast hospital.
Up to 70% of health providers at national and Chuy and Issyk Kul Oblast level have attended training events organised by the GIZ Regional Programme, including:

- **At the national level:**
  - Emergency obstetric care for anaesthesiologists and intensive care specialists,
  - Antenatal care – ToT for instructors in birth preparedness schools,
  - Appreciative inquiry for clinical instructors and MHIF specialists, as well as for the Kyrgyz Accreditation Commission (MAC),
  - New-born resuscitation for midwives (jointly with national and international experts and LDS Charities).

- **At the level of the pilot Oblasts:**
  - Effective perinatal care, ToT and later advanced ToT,
  - Emergency obstetric care for obstetricians and gynaecologists,
  - Continuous trainings for obstetricians and gynaecologists with a focus on surgical obstetrics,
  - Simulative trainings for midwives,
  - Monitoring and mentoring in effective perinatal care in maternity clinics,
  - Annual near-miss cases review,
  - Evaluating the quality of perinatal care for primary and secondary health facilities in cooperation with WHO experts,
  - Newborn care for specialist medical consultants and nurses,
  - Hospital management (management of maternity clinics).

With the support of the programme, five birth preparedness schools were established and put into operation at the following locations:

- Issyk Kul Oblast Maternity Hospital (Karakol),
- Family Practice Medical Centre (Karakol),
- Jeti-Oguz Territorial Hospital,
- Issyk Ata Territorial Hospital,
- Balykchy Family Practice Medical Centre.

*Support also included the provision of TV sets, office equipment, gymnastic balls, Swedish walls, etc.*
Oblast hospitals now have clinical obstetrics and gynaecology protocols for three levels of care, newborn resuscitation algorithms and emergency obstetric care, as well as medical accreditation standards for maternity departments. The Ministry of Health has issued and disseminated orders detailing how the birth preparedness schools are to operate.

Given that midwives and nurses now play increasingly important roles in hospitals and communities, GIZ has focused its support on the Kyrgyz Alliance of Midwives. In cooperation with UNFPA, GIZ helped organise the alliance’s founding conference and two national meetings. Today, the alliance has an office in the Kyrgyz capital Bishkek, which was equipped with GIZ support, and a network of province organisations. Every year, UNFPA, GIZ and the alliance set the annual operations budget and search for donors. The alliance has thus become a key discussion partner and has trained 90% of territorial hospital staff on various clinical issues. As a result, midwives are now able to administer and lead 40% of all physiological deliveries. Additionally, with GIZ support, the alliance has adapted the recommendations on newborn resuscitation drawn up by the American and European Associations of Cardiologists for midwives and doctors in line with Kyrgyz algorithms; an accompanying training programme has enabled midwives to acquire and hone their newborn resuscitation skills. The Programme has also facilitated the translation of manuals and course materials covering 'Helping Babies Breathe' and 'Helping Mothers Survive', which were previously not available in Russian language.

Support to the newly established Kyrgyz Alliance of Obstetrician-Gynaecologists and Neonatologists was mainly structural and consisted of small-scale infrastructure improvements and furnishings. GIZ also supported the launch of a website and the publication of a quarterly bulletin on obstetric, gynaecological and neonatal care, as other than the internet, there are still very few means of accessing up-to-date information of this kind in Russian.

Together with the Kyrgyz Republic’s National Health Promotion Centre, the GIZ team developed a package of information materials on safe pregnancy and postnatal care for village health committees. It has also trained members of these committees and provided them with materials for community members. The village health committees are now fully capacitated to raise people’s awareness.
Major achievements:

1. Changes in Clinical Practice:

   • The clinical protocols were developed by a multi-disciplinary team in line with international standards. Although the Ministry of Health had actually endorsed these clinical protocols in 2008, due to lack of funding their country-wide application could not start until the GIZ programme arrived on the scene. As part of a specially developed training course, health professionals were taught how to apply these clinical tools.

   • GIZ advocated the concept of team work in service delivery – so that now the respective roles of the midwives, nurses, neonatologists and gynaecologists during labour and delivery are clearly defined and known to all team members. This move has dramatically strengthened the role of midwives and nurses in deliveries and thus impacted positively on their self-confidence.

   • The introduction of modern technologies and evidence-based recommendations for the management of pregnancies and childbirth has not only raised economic efficiency, but also made it possible to:
      - cut back on the use of unnecessary medication during labour and for newborns by almost 80% - practices which the WHO expressly welcomed at a recent regional round table meeting.
      - personalise services, adapting them to the needs of each woman by eliminating unnecessary ‘routine procedures and interventions’ (such as shaving before labour, parasitological tests, swathing the infants).
      - Partograms are used in 45% of normal physiological deliveries in all pilot hospitals.
      - The number/proportion of deliveries accompanied by a partner (partnership in delivery\(^1\)) has increased and now fluctuates between 10% and 86% of all deliveries in pilot hospitals.

2. Changes in behaviour of health workers

   • Health services increasingly focus on mother and child:
      - Pregnancy is not seen as disease but as a physiological process,
      - The treatment approach now adopts a human-rights-based approach,
      - Families are involved in decision-making in the hospital, e.g. delivery position, partnership deliveries,
      - All measures performed on newborns are done in the presence of the mother or a family member.

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1. ‘Partnership in delivery’ in this context refers to the presence of a trusted person in birth preparedness schools and during labour and delivery; for example husband, mother-in-law, mother, sister or friend.
3. Technologies and innovations that can be employed in other Oblasts:

- **Clinical protocols and algorithms** (Algorithms on newborn resuscitation, emergency obstetric care), medical accreditation standards for maternity clinics,
- **Birth preparedness schools** (Job description, list of necessary equipment, staff skills requirements, training materials for the staff, information material for expectant mothers and their family members; videos, training materials for mothers),
- **Monitoring tool** (Evaluation of EPC roll-out in project facilities),
- **Quality Indicators** to evaluate the performance of maternity departments,
- **Information material for the general public and medical personnel:**
  
  **Posters**
  - Safe Motherhood,
    1) Delivery positions;
    2) Nutrition pyramid;
    3) What you should know after delivery;
    4) You and your baby;
    5) Instructions on Hand washing;
  - Algorithms of emergency obstetric care,
  - Algorithm on newborn resuscitation (with new recommendations of WHO),
  - Danger signs during and after pregnancy.

  **Manual and Guidelines**
  - Clinical protocols on obstetrics and gynaecology for all levels of healthcare (primary, secondary and tertiary),
  - Basics of antenatal care. Manual for primary healthcare specialists,
  - Basics of antenatal care. Manual for doctors, paramedical practitioners (feldshers) and midwives,
  - Basics of antenatal care. Manual for nurses,
  - Hand hygiene for healthcare personnel,
  - Book of tables for neonatology.

  **Report and booklets**
  - Review of the healthcare situation of mothers and newborns in the Kyrgyz Republic in the period 2008-2009,
  - Expecting a baby.
2. Major challenges for future programmes

The Kyrgyz Republic’s healthcare system still suffers from weaknesses that severely compromise the quality and efficiency of care given to mothers and newborns. A lack of information about the kind of services available means that certain population groups are effectively excluded from healthcare. To sustainably lower maternal and neonatal mortality rates the following challenges need to be addressed in the future:

- Better coordination between primary healthcare and specialised care in hospitals:
  - Primary level care for expectant mothers is not up to standard. Given that primary health care facilities are relatively new to Kyrgyzstan, the role of Family Practice Medical Centres and health care stations in pregnancy management needs to be clarified and referral practices need to be improved. Introducing clearly defined performance indicators to reduce maternal and child mortality is one option that the MoH and the MHIF could consider.
  - It is also important to look closely at the services midwives provide for expectant mothers in order to ensure there are no gaps in service provision in the home or the delivery unit, thus making full use of primary health care services.

- Another possibility would be to assist the PHC by using hospital outreach services and gynaecological consultations in particular. This might help ease some of the difficulties encountered when recruiting staff for deployment within the community. Any contracting arrangements for this option will require critical attention, as the financial advantages this paid service currently affords the hospitals, will have to be offset if they are to be motivated to outsource some of their services to a community setting. Timely consultation will help identify any critical signs of illness during pregnancy and enable necessary treatment, for example hospitalisation, to be initiated sooner.

- Strengthening cross-sectoral cooperation in regard to safe motherhood and healthy child
  - Expectant mothers’ access to healthcare services would be eased if the different sectors (education, social, public relations and health) were to cooperate in achieving MDGs 4 and 5. Teaching school students about safe motherhood, reproductive health, and contraceptives would help educate the young generation about key aspects of reproductive health, which appears important given the young age of Kyrgyz mothers. Social protection for women from vulnerable or poor population groups would help improve timely access to services for these women and help overcome the barriers to seeking medical assistance. In some families with many children, mothers do not even have time to register their pregnancies, and they continue to work until shortly before they are due to give birth. Thus, financial support might help reduce the economic burden pregnancies pose to the family.
Major challenges for future programmes

- Involving village health committees
  - Village health committees working at the community level with the support of different development partner programmes could play an important role in raising women’s awareness of their general state of health and specifically their reproductive health. At present, the village committees work independently. However, cooperation with a local nurse or midwife, potentially under their professional oversight, might generate certain advantages and raise acceptance levels, as many of the village committee members do not have a medical background.

- Improving funding by local authorities:
  - Current infrastructure investment at local level is sporadic and very rarely planned in advance. Usually, the measures focus more on emergency repairs and rehabilitation. Infrastructure investment plans based on clinical requirements would enable local authorities to plan their expenditure in advance and give the hospital administrations the chance to adjust accordingly.

The following chapters examine the successes achieved in maternal and child health in the pilot clinics supported by GIZ’s Regional Programme ‘Health in Central Asia’.
3. Chuy Province

3.1 Chuy Oblast Merged Hospital, Maternity Department

<table>
<thead>
<tr>
<th>Population</th>
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<td>No of deliveries in 2010</td>
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<td>No of deliveries in 2011</td>
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<td>No of deliveries in 2012</td>
<td>4,620</td>
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<tr>
<td>No of beds in maternity ward</td>
<td>90</td>
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<tr>
<td>No of staff</td>
<td>117</td>
</tr>
<tr>
<td>Partner Deliveries</td>
<td>60%</td>
</tr>
</tbody>
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The Maternity Department of Chuy Oblast Merged Hospital (Chuy United Province Hospital) is located in the capital city, Bishkek, and serves as a referral centre for the Oblast’s primary hospitals.

As part of the KfW ‘Mother and Child Health II and III’ programme, the Maternity Department was supplied with medical equipment in 2006 and 2007. The hospital has been a pilot facility of GIZ’s Regional Programme ‘Health in Central Asia’ since 2009.

Following the regionalisation of perinatal care in 2010, the hospital has increased its capacity. Primary hospitals in the Oblast also refer cases here, if they lack the infrastructure, knowledge, skills and specialised staff to cope with them and so avoid any emergency situations in their own facilities.

Major Achievements

- Safe and supportive deliveries – partnership in delivery: The proportion of deliveries accompanied by a partner increased to 60%; women increasingly choose their delivery positions themselves.
- Application of effective tools for labour management, particularly in the third phase of labour: As a result, post-partum bleedings were reduced to 4% of all cases.
- Use of partograms in up to 70% of all physiological deliveries.
- Use of epidural anaesthesiology in 70% of all Caesarean sections (the highest rate in the entire country).
- Improved newborn care, including primary, emergency and intensive neonatal care.
- Development and application of local standards and procedures to manage complications.
- Adequate care and support for pregnant women living with HIV and application of protocols and standards concerning the prevention of mother-to-child transmission (PMTCT) of HIV.

2. In this context, ‘partnership in delivery’ refers to the presence of someone the expectant mother trusts during the antenatal period and birth, e.g. the husband, mother-in-law, mother, sister or a friend.
- Regular monitoring and mentoring to ensure implementation of the standards/clinical protocols on safe motherhood in routine practice.
- Based on the Near-Miss Cases Review technology within the WHO Initiative 'Beyond the Numbers: Reviewing Maternal Deaths and Complications to Make Pregnancy Safer', regular analysis takes place to expose any gaps at the different levels of care.
- Visual aids on safe motherhood (posters, algorithms, etc.) in nurse posts and delivery rooms.
- E-registration of newborns.

Improved Clinical Practice

With GIZ’s support, the Maternity Department was able to sustainably improve the management of premature deliveries and the resuscitation of newborns. Hospital staff benefited from targeted trainings on emergency obstetric care, newborn resuscitation and effective perinatal care, while midwives received special training in primary resuscitation. Approximately 80% of all complicated deliveries or critical newborn care from territorial hospitals are currently managed here: 25% of all admissions are women in highly critical conditions, including those with acute renal failure. Additionally, another 20% of admissions involve high perinatal risk as the pregnancies had never been registered and are therefore unaccompanied. This is mostly due to high levels of migration amongst the population. Around 18% of all deliveries are Caesarean sections and 7.7% of all deliveries are premature deliveries – cases that all require well-organised intensive care units for mothers and newborns, as well as well-coordinated work by gynaecologists, neonatologists, anaesthesiologists and nurses. Thanks to the introduction of minimally-invasive technologies and improved surgical skills of staff, mothers can recover faster than before. Furthermore the experience exchange with other hospitals and international experts afforded by the GIZ programme has enabled staff to introduce epidural anaesthesiology as a routine practice for Caesarean sections. Some 70% of all Caesarean sections are now performed with an epidural – making this hospital one of very few in the entire country applying this procedure.

Improved managerial skills and good cooperation with hospital administration have helped improve the department’s planning capacity. As a result, all medications and blood components are now available in the required volumes, thus reducing the financial burden on the families who previously had to cover the associated costs themselves.

GIZ succeeded in sensitising the hospital management and the local authorities on the need to establish procurement processes for much-needed infrastructure improvements and sufficient drug supply. This has led to the development of an infrastructure improvement plan: Recently, the heating, sewage, and water supply systems were rehabilitated using hospital budget funds and additional funds from the local authorities. The windows were
replaced in 2013. Additionally, the Ministry of Health supplied state-of-the-art equipment for effective neonatal care, including oxygen concentrators, anaesthesiology equipment and ventilation machines for newborns.

**Continuous Quality Improvement**

With GIZ support, a Working Group on Internal Quality Assurance was set up. The group conducts regular clinical audits and self-assessments whose findings are used to improve performance capacity. As of now, 26 quality indicators have been defined. Based on the 'Near-Miss Cases Review' by the WHO initiative ‘Beyond the Numbers: Reviewing Maternal Deaths and Complications to Make Pregnancy Safer’, staff conduct regular situational analyses. The indicators and standards are reviewed on a monthly basis and strategies to improve work processes are discussed. Once every three months, the Maternity Department organises a quality assurance conference where family doctors, outpatient gynaecologists, local midwives and department staff get together to discuss critical cases reported throughout the previous three month period. Measures designed to enhance quality have led to the achievement of around 50% of indicators; an additional 25% of indicators have almost been achieved.

**Resource Centre**

Established in March 2011, the Resource Centre was embedded within the hospital’s existing structures; GIZ encouraged the initiative and funded the procurement of the necessary equipment (TV sets, computers, laptop, teaching dummies etc).

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Chuy Merged Oblast Hospital is also an obstetrics and gynecology teaching hospital for the Kyrgyz-Russian Slavic University. The Resource Centre organises trainings with visiting professors from state university clinics and the premises are also used for informal on the job training of midwives and nurses, both by doctors from the department and from outside trainers.

*Cooperation with the GIZ team has benefitted us vastly. We were exposed to international and regional experience and we learned new skills during practical training sessions. New techniques require well-managed team work. We have been able to work in teams with gynaecologists, neonatologists and anaesthesiologists, knowing each other’s tasks – which made us more confident about what we are doing. When pregnancies are registered early and critical cases are dealt with properly from the start, it reduces the level of stress for women during pregnancy and labour.*

- A staff member
3.2 Chuy - Tokmok Territorial Hospital

Chuy Tokmok Territorial Hospital is located in Chuy Province, 50 km from the capital city of Bishkek. The GIZ Programme ‘Health in Central Asia’ has been conducting capacity development measures to improve the quality of maternal and newborn health since 2009. Those include the introduction of WHO guidelines on Safe Motherhood; strengthening hospital management; developing and introducing clinical protocols and standards; regular coaching and mentoring in the application of standards/clinical protocols into routine practice.

Additionally, GIZ and the clinic started partnering with the Japanese Embassy in 2011. While the Japanese Embassy has supplied the Clinic with medical high-tech equipment through the so-called ‘Grass Root Fund’, GIZ has conducted the required accompanying capacity development measures for medical staff.

**Major Achievements**

- Safe and supportive deliveries – partnership in delivery: up to 45% of all deliveries were performed with a partner present; women increasingly choose their delivery positions themselves.
- Application of effective methods for labour management, especially during the third phase of labour.
- Use of partograms in up to 65% of all deliveries.
- Improved care for healthy and sick newborns; this applies to primary as well as to emergency and intensive newborn care.
- Development and application of local standards and procedures to manage complications during pregnancy and childbirth and when treating newborns.
• Adequate care and support for pregnant women living with HIV and application of protocols and standards concerning PMTCT.

• Improved referral practice for critical pregnancies and newborns with complications.

• Regular monitoring and mentoring to ensure implementation of standards/clinical protocols on safe motherhood in routine practice.

• Visual aids on Safe Motherhood (posters, algorithms etc.) in nurse posts and delivery rooms.

• Thanks to the strict hygienic measures introduced over the last three years, the number of postpartum infections and inflammations dropped dramatically.

An internal working group on quality management was set up whose initial phase was supported by GIZ. This group organises regular clinical audits and self-assessments, the findings of which are used to improve performance. Department staff conducts monthly quality assurance reviews; quarterly quality review reports are sent to the primary health care unit.

All staff of the Maternity Ward took part in trainings on emergency obstetric care, primary newborn resuscitation and effective perinatal care, and now apply their newly acquired skills on a daily basis. The application of protocols and algorithms has facilitated an improvement in service delivery. Introducing simple hygienic measures, such as hand washing, hygiene in the delivery rooms etc. and by making it possible to adjust the temperature in the delivery and patient rooms, have led to drastic improvements in newborn care and reduced the use of medicines such as antibiotics. Data collection makes it easier to determine the needs for medical supplies and as a result, to ensure that all medicines are available in sufficient quantities.

All delivery rooms are equipped with emergency kits to handle different complications as well as an oxygenator that can easily be connected to either the delivery room or to the ICU.

Although our Maternity Department did not benefit from the earlier projects and we only received minimum equipment, the programme has enabled us to introduce new, evidence-based mechanisms in line with the WHO Safe Motherhood regulations. Since we do not have the equipment we need to treat emergencies in newborns, we try to refer critical cases as early as possible to the hospital in Bishkek, which has more advanced technologies. We are trying to improve referral practices, but this also requires considerable pressure at community level as well as family support.

- A staff member

This is my fourth baby. The doctors and nurses are very professional and friendly, even though the infrastructure is not perfect here. I have been told about the benefits of long-term breast-feeding (up to 12 months), and was advised on contraceptive use. I feel very well cared for by all staff members.

- A mother
3.3 Issyk – Ata Territorial Hospital

The medical staff on site includes obstetricians and gynaecologists, neonatologists, midwives, nurses and family physicians who are engaged in healthcare in the hospitals or as part of primary care services in Issyk Ata.

In 2005, as part of the KfW programme ‘Mother and Child Health Care II and III’, the territorial hospital Issyk Ata received equipment for obstetrics and newborn care, including incubators, monitors, delivery chairs, and lamps etc. The GIZ regional programme ‘Health in Central Asia’ has been implementing capacity development measures to improve the quality of maternal and newborn healthcare since 2009. These comprise the introduction of WHO Safe Motherhood technologies; strengthening hospital management; developing and introducing clinical protocols and standards; regular coaching and mentoring on the application of standards/clinical protocols into routine practice.

The maternity ward at Issyk Ata Territorial Hospital is one of the pilot facilities taking part in the GIZ programme; here, the majority of pregnant women with severe complications and low birthweight newborns are attended to by trained personnel.

<table>
<thead>
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<th>Population</th>
<th>136,220</th>
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<tr>
<td>No. of deliveries in 2010</td>
<td>3,112</td>
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<tr>
<td>No. of deliveries in 2011</td>
<td>3,058</td>
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<tr>
<td>No. of deliveries in 2012</td>
<td>3,223</td>
</tr>
<tr>
<td>No. of beds in maternity ward</td>
<td>45</td>
</tr>
<tr>
<td>No. of staff</td>
<td>30</td>
</tr>
<tr>
<td>Partner Deliveries</td>
<td>70%</td>
</tr>
</tbody>
</table>

Major Achievements

- Safe and supportive deliveries – partnership in delivery (up to 70% of all deliveries were performed with a partner present); women increasingly choose delivery positions themselves.
- Application of effective tools for labour management, especially during the third phase of labour – as a result, in 93% of all cases, bleeding was kept to below 500 ml.
- Use of partograms in up to 80% of all deliveries.
- Improved newborn care, including primary, emergency and intensive neonatal care.
- Development and application of local standards and procedures to manage complications during pregnancy and childbirth and when treating newborns.
- Adequate care and support for pregnant women living with HIV and application of protocols and standards concerning PMTCT.
- Regular monitoring and mentoring to ensure implementation of the standards and clinical protocols on safe motherhood in routine practice.
- Based on the Near-Miss Cases Review technology within the WHO Initiative ‘Beyond the Numbers: Reviewing Maternal Deaths and Complications to Make Pregnancy Safer’, regular analyses expose any gaps at the different levels of care and serve to identify possible solutions.
- Visual aids on safe motherhood (posters, algorithms etc.) at nurse posts and delivery rooms.
- E-registration of newborns.

Good staff development through trainings, coaching and mentoring, combined with additional resources from local authorities and hospital management, has become an incentive for health managers and medical personnel at Issyk Ata Maternity Hospital to ensure that mothers and their newborns receive the best quality care and attention.

As a result of the trainings facilitated by GIZ, the doctors and nurses in our maternity hospital have got to know about new methods of delivery management, neonatal care and emergency perinatal care – this knowledge has made us more efficient and self-confident. Communication with the population has improved and is more open and cooperative. The women who have attended antenatal classes are more self-confident and well prepared for delivery. We should continue to improve cooperation with PHC personnel with respect to antenatal care to ensure women aren’t referred too late, or not at all. We also would like to propose an exchange programme with doctors from different hospitals in our Oblast to improve our skills, discuss different methods of work and share our skills and experience with our colleagues.

-A staff member

4. Confidential Enquiry into Maternal Death, ‘Beyond the Numbers’
Working closely with the local authorities, hospital management mobilised funding for supplies and equipment for safe deliveries, the partial renovation of its infrastructure, for new beds, the renewal of its sewage and water supply systems, and for peer-to-peer on the job training. Additional resources were mobilised from local budgets to start up a consultation and counselling unit for reproductive health issues at the hospital. Here, specialists provide free advice on sexual and reproductive health issues, family planning, and gender-based violence, as well as HIV/STI prevention.

An internal working group tasked with supporting health care quality management and promoting quality improvement and patient safety was set up; the GIZ regional programme provided backing during the early stages. This group organises regular clinical audits and self-assessments the findings of which are used to improve performance.

The Mother and Child Health Department of the Kyrgyz Ministry of Health acknowledges Issyk Ata Maternity Hospital as the best facility in Chuy Oblast and believes it would be an excellent choice for experience-sharing, knowledge management and supportive supervision for the entire Oblast. The hospital has been awarded the WHO recognition ‘Baby Friendly Hospital’.

**Birth Preparedness School**

Instructors at the newly launched birth preparedness school offer courses to teach pregnant women and couples about pregnancy, birth, the postpartum period and baby care. Pregnant women and their partners or husbands learn about relaxation and massage techniques and partners acquire the appropriate knowledge to support women during delivery. To promote the Birth Preparedness School’s services to the wider public, the GIZ Regional Programme ‘Health in Central Asia’ developed a set of promotional materials on pregnancy, childbirth and neonatal care, including recommendations for women and their families.

This is my second delivery in this hospital after a gap of three years. The delivery was well organised, my husband was with me and the midwife gave me all her support. My baby was handed to me just minutes after I gave birth. The building has been renovated and is warm and pleasant now, and the beds are very comfortable. The staff is friendlier; I noticed they follow the hygiene regulations, wear surgical gloves and wash their hands. They showed me how to breastfeed and told me about critical signs I need to look out for that would require immediate medical attention!

- A mother

**Improvement of antenatal care at primary health care level**

All health professionals working in primary health care – currently 176 family practitioners, hospital nurses and midwives - attended a training course organised by GIZ in 2011. The course focused on clinical protocols and modern methods of antenatal care, so that staff now has the skills they need to deliver antenatal care in line with approved clinical protocols and standards.

This is my second delivery in this hospital after a gap of three years. The delivery was well organised, my husband was with me and the midwife gave me all her support. My baby was handed to me just minutes after I gave birth. The building has been renovated and is warm and pleasant now, and the beds are very comfortable. The staff is friendlier; I noticed they follow the hygiene regulations, wear surgical gloves and wash their hands. They showed me how to breastfeed and told me about critical signs I need to look out for that would require immediate medical attention!

- A mother
3.4 Tokmok City Hospital

Tokmok City Hospital is located in Chuy Oblast, 50 km from the Kyrgyz capital, Bishkek. The hospital is a WHO/UNICEF ‘Baby Friendly Hospital’. The maternity ward was equipped with medical equipment as part of the KfW project ‘Mother and Child Health II and III’ in 2006. The GIZ Regional Programme ‘Health in Central Asia’ started implementing capacity development measures in 2009 in a bid to improve the quality of maternal and newborn health. Activities include the introduction of WHO Safe Motherhood guidelines; strengthening hospital management; the development and introduction of clinical protocols and standards; regular coaching and mentoring on the application of standards/clinical protocols in routine practice.

Major Achievements

- Safe and supportive deliveries – partnership in deliveries: The proportion of deliveries performed with a partner present increased to 60%; women increasingly choose delivery positions themselves.

- Application of effective tools for labour management, especially in the third phase of labour. As a result, in 93% of all cases, bleeding was kept to below 500 ml.

- Use of partograms in up to 60% of all deliveries.

- Improved newborn care, including primary, emergency and intensive neonatal care.

- Development and application of local standards and procedures to manage complications during pregnancy and childbirth and when treating newborns.

- Adequate care and support for pregnant women living with HIV and application of protocols and standards concerning PMTCT.
• Improved referral practice for critical pregnancies and neonatal complications.

• Regular monitoring and mentoring to ensure implementation of the standards/clinical protocols on safe motherhood in routine practice.

• Visual aids on safe motherhood (posters, algorithms, etc.) in nurse posts and delivery rooms.

• E-registration of newborns.

Since introducing the ‘Near-Miss Case Review’ methodology, as part of the WHO initiative ‘Beyond the Numbers: Reviewing Maternal Deaths and Complications to Make Pregnancy Safer’, situational analyses are conducted on a monthly basis to identify gaps in the various levels of health service delivery and to identify joint, multi-level solutions. Quarterly quality assessment reports are sent to the relevant PHC facilities, a family practice or a health station, with the request for feedback.

To be able to deliver assistance in an emergency, each delivery room has an emergency kit for handling various complications that is checked by a midwife prior to each delivery. Thanks to the sustainable improvements in practices, no maternal deaths were recorded in 2012.

With the support of the GIZ regional programme, the hospital management was able to develop a targeted infrastructure improvement programme for the maternity ward, and even succeeded in attracting private funding: in 2011, the water supply and sewage systems were renovated, and in 2012, all windows in the maternity wards were replaced by modern plastic windows. New beds, that are comfortable for mothers and newborns, were procured using the hospital budget. Currently, women enjoy rooms with 3 to 4 beds that have washing basins with hot and cold water. Thanks to moderate investment in infrastructure, staff can control the temperature in the delivery rooms and conveniently adjust it as required.

In the maternity ward, staff have organised a space where mothers can meet each day to talk and get advice on breastfeeding and newborn care. Additionally, the nurses also provide advice on pelvic strengthening exercises to help the new mothers prevent and overcome possible pregnancy-related complications and rebuild their pelvic strength.
The equipment supplied in 2006 as part of KfW’s financial cooperation is in good order and works well, thanks to the good maintenance service contract concluded when procuring and installing the apparatus. When the new methods were introduced, it was initially difficult for us to change our usual patterns of work as we all have several years of working experience. But after a while, we all came to appreciate the clear clinical protocols and algorithms provided by the GIZ Programme. Working in a team builds your self-confidence and ensures that a colleague is always there to help when needed. We were able to use our theoretical knowledge in practice, and improve clinical usage of the equipment thanks to training. We still have to improve coordination with PHC units and gynecologists from the Family Medicine Centres, as referrals are still problematic. We could also improve our services with an improved referral system – we always transfer a mother or newborn experiencing complications to the province maternity department in Bishkek.

- A staff member
Health care is highly appreciated by the Issyk Kul Oblast Administration. We really appreciate the cooperation with the GIZ Regional Programme, which helped us to introduce modern methods, techniques and instruments in delivery management and neonatal care. Simultaneously, GIZ’s work to coordinate activities among different sectors, communities and various levels of care also deserves a mention. If our objective is to improve mother and child health and to lower maternal and antenatal mortality, the heads of all medical facilities should prioritise this objective and mobilise resources accordingly. We used the Issyk Kul Region Development Fund to support infrastructure projects in each district and many local authorities used these funds to rehabilitate maternity wards and renew technical installations. The Oblast coordinator for health and social issues only provides recommendations and advice to local authorities and local organisations about how to improve their work. But ultimately, it is up to those responsible locally to actually implement the recommendations in their institutions. That is why it is so important to cooperate with every manager of a health facility and every local Rayon administration if we want to achieve the objectives at the community level. Even though all family doctors received further training, there is still a lack of knowledge and responsibility at this level and we have to improve coordination between the family doctors, gynecologists and maternity hospital staff. In this respect, the creation of the birth preparedness schools is really important. They empower women to make informed decisions during pregnancy, by giving them access to evidence-based information on delivery and risks during pregnancy, and enabling them to have a partner with them during childbirth. It is vital that we open more such schools and train the nurses who will be employed there. The GIZ Team included the village health committees in the awareness-raising campaign for women; this approach should be further strengthened.
**4.1 Issyk Kul Merged Province Hospital, Karakol**

Issyk Kul Merged Oblast Hospital is situated in the centre of Karakol Oblast. The maternity ward is responsible for normal physiological deliveries in Karakol Oblast and serves as a referral centre for primary hospitals in the entire Issyk Kul Oblast. As part of the regionalisation of perinatal care, the hospital has increased its human and infrastructural capacities to manage complicated cases; referrals increased more than twentyfold over the past three years. Around 70% of all complicated cases of deliveries and newborns from territorial hospitals in Karakol Oblast are currently managed here. Moreover, due to lack of capacity, primary hospitals also refer ‘near critical cases’ to this hospital’s maternity department. The hospital has been awarded the ‘Baby-Friendly Hospital’ status by WHO/UNICEF.

**Major Achievements**

- Safe and supportive deliveries – partnership in deliveries: The proportion of deliveries performed with a partner present increased to 86%; women increasingly choose delivery positions themselves.
- Application of effective tools for labour management, especially during the third phase of labour; as a result, postpartum bleedings could be reduced to 7% of all cases.
- Use of partograms in up to 75% of all physiological deliveries.
- Reduction in perinatal mortality from 21.6% in 2009 to 18.8% in 2011.
- Improved newborn care, including primary, emergency and intensive neonatal care.
- Development and application of local standards and procedures to manage complications during pregnancy and childbirth, and when treating newborns.
- Adequate care and support for pregnant women living with HIV and application of protocols and standards concerning PMTCT.
- Regular performance monitoring according to WHO standards.

<table>
<thead>
<tr>
<th>Population</th>
<th>444.500</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of deliveries in 2010</td>
<td>2373</td>
</tr>
<tr>
<td>No of deliveries in 2011</td>
<td>2511</td>
</tr>
<tr>
<td>No of deliveries in 2012</td>
<td>3152</td>
</tr>
<tr>
<td>No of beds in maternity department</td>
<td>73</td>
</tr>
<tr>
<td>Pathology</td>
<td>18</td>
</tr>
<tr>
<td>Maternity</td>
<td>40</td>
</tr>
<tr>
<td>Gynaecology</td>
<td>15</td>
</tr>
<tr>
<td>No of health staff</td>
<td>84</td>
</tr>
<tr>
<td>Partner Deliveries</td>
<td>86%</td>
</tr>
<tr>
<td>Received Referrals in 2009</td>
<td>38</td>
</tr>
<tr>
<td>Received Referrals in 2012</td>
<td>654</td>
</tr>
</tbody>
</table>
• Regular monitoring and mentoring to ensure implementation of the standards/clinical protocols on safe motherhood in routine practice.

• Based on the Near-Miss Cases Review technology within the WHO Initiative ‘Beyond the Numbers: Reviewing Maternal Deaths and Complications to Make Pregnancy Safer’, regular analyses expose gaps at the different levels of care and serve to identify joint solutions across all levels.

• Visual aids on safe motherhood (posters, algorithms etc.) in nurse posts and delivery rooms

• E-registration of newborns.

With the help of the Issyk Kul Region Development Fund, which is backed by the Canadian gold mining company Kumtor, hospital management was able to generate sufficient funding to replace the windows in the Maternity Department. Likewise, the sewage and electricity systems were rehabilitated. Additional funds for maternity ward maintenance were earmarked in the hospital’s own budget. Other equipment was supplied by international development partners KfW and Japan International Cooperation Agency (JICA) and the Kyrgyz Ministry of Health. Consequently, the Maternity Department’s equipment requirements have been satisfied.

Hospital staff has received targeted training on emergency obstetric care, newborn resuscitation, and effective perinatal care. Midwives attended a customised training course on primary reanimation. Twelve national trainers trained by GIZ are working in the hospital, where they provide on the job training as required for their colleagues from the department as well as for staff from territorial hospitals. Hospital management was particularly positive about the training provided for midwives and nurses on ethics, infection control and counselling. This newly acquired knowledge is helping to improve overall performance as well as the general satisfaction of women and their newborns.

The Maternity Department’s Resource Centre, which GIZ helped establish, is instrumental in improving staff performance. The hospital uses the quality assurance tools for services and applies the continuous quality improvement tools developed with the support of the GIZ programme:

• Each section of the Maternity Department has established a working group on quality assurance that continuously monitors and evaluates service quality. These groups also assist health professionals to implement quality assurance measures and evidence-based methods.

• Each section has defined time-bound performance indicators. As soon as these goals are reached or mainstreamed in daily routines, the Resource Centre helps to define new performance indicators.
Members of the quality assurance groups and the Resource Centre conduct quarterly quality assurance reviews in order to monitor changes and to help the departments to achieve their indicators.

Furthermore, Peace Corps volunteers are continually on site at the hospital, where they work alongside doctors, midwives and nurses in order to improve their practical skills under the watchful eyes of more experienced colleagues.

To increase the quality of services in primary hospitals, the Maternity Department managers draw up a list of further training events for territorial hospitals every year. This event calendar is discussed with hospital staff and, if necessary, additional measures are added (training, mentoring etc). Tools like ‘Confidential Enquiry on Maternal Death’, ‘Near-Miss Cases Review’ and ‘Appreciative Enquiry’ are now mainstreamed in everyday practice and assist department staff to share their knowledge and experience with other hospitals as well as Family Medicine Centres and health stations.

GIZ capacity building measures encourage us to change our practices and attitudes. This is a difficult task and cannot be implemented overnight. However, the teamwork approach, where the doctor, midwife and the nurse know exactly what each other’s roles are, helps us to reach the result we want. On the job training on specific clinical issues is very useful. For example, nurses now receive regular training on breastfeeding support in which the trainer explains the techniques. The referral practices from territorial hospitals and Family Medicine Centres still have to be improved, however, as most of the critical cases either arrive too late to be handled professionally or are not recognised in time at PHC level. It is also worth noting that those mothers who have undergone antenatal classes are better prepared for childbirth and the deliveries are generally less stressful – also for staff. We think that partner deliveries are good, as they generate more confidence all around. In fact, for mothers under 18, we insist on a partner delivery (mother, mother-in-law or grandmother) because, from a psychological point of view, it is important that young mothers have somebody they trust fully at such an important time.

- A staff member

This is my first baby and I was happy that my grandmother was with me. She noticed that the nurse and midwife washed their hands constantly and used gloves, which was not the case when she gave birth. It was very reassuring to have somebody I know with me during labour. The nurse came to me straight after I was transferred back to my room and explained how I should care for the baby and what critical signs I needed to look out for. I enjoyed the sunshine in the room and being in such a comfortable place with my baby.

- A mother
I live 35 km away from Karakol and was referred here due to a risky pregnancy and the risk of premature birth. I was taken great care of, and right from the outset, the doctor explained the risks to me and what needed to be done. As I was waking up from the anaesthetic after my Caesarean section, the nurse greeted me and transferred me back to a ward room where my husband was waiting for me. I was able to visit my baby in intensive care as often as I wanted and the neonatologist was always very friendly and patient, and explained my baby’s condition and what the complications might be. My baby has been with me in my room now for the past three days and we are looking forward to going home tomorrow.

-A mother

Issyk Kul Oblast Merged Hospital, Maternity Care Resource Centre, Karakol

The Resource Centre was inspired by a GIZ study looking at how the Oblast Level Maternity Department could improve its capacity for on the job training while assisting territorial hospitals to improve the quality of care. Established in March 2011, the Centre was immediately incorporated into the existing hospital structure. It is currently financed from hospital funds, but efforts are underway to secure additional funding from international development partners and local authorities. The GIZ programme supports the institutionalisation of the Centre and helped draw up the Centre’s charter and operational planning. The Centre’s core functions are:

• Birth preparedness and antenatal education for pregnant women and their family members,

• Ongoing documentation of evidence-based practices in neonatal and perinatal care to be used by health professionals throughout the Oblast, including responding to enquiries by health professionals regarding evidence-based solutions to clinical problems.

• Training and methodological support to health professionals, including mentoring and peer review.

• Further training for medical personnel in the Oblast in close cooperation with the Kyrgyz State Institute for Continuing Medical Education (KSICME).

• To assist maternity departments in the Oblast to introduce continuous quality improvement and quality assessment

The Centre bases its work on annual operation plans approved by hospital management in coordination with the local authorities.

The Centre has a permanent staff contingent consisting of one medical doctor, an antenatal care coordinator, an instructor, an office manager and logistic personnel. Personnel costs are financed from the hospital budget under the conditions agreed with MHIF. The Centre also employs national trainers working in Maternity Departments who have undergone specialised training provided by the GIZ Regional Programme. In close cooperation with the KSICME and the GIZ team, the Centre has developed basic and further training materials on safe motherhood, effective perinatal care, maternal mortality audits, and emergency obstetric care which is being used to train health
personnel. Training events like this ensure that guidelines are sustainably integrated into daily work routines where they improve health care services. In 2011 and 2012, the Centre trained the following specialists:

<table>
<thead>
<tr>
<th>Speciality</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gynecologists</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Neonatologists</td>
<td>16</td>
<td>6</td>
</tr>
<tr>
<td>Midwives</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td>Neonatal nurses</td>
<td>38</td>
<td>38</td>
</tr>
</tbody>
</table>

Furthermore, the Centre is responsible for continuous quality improvement. The indicators and quality standards developed jointly with international and local GIZ experts for each section of the Maternity Department are revised and assessed on a monthly basis. Possibilities for improving work processes are discussed and, if necessary, the indicators and standards revised. For example, during monitoring, it became apparent that excessive volumes of antibiotics and oxytocin were being used to prevent various post-delivery complications and treat the postpartum endometrium. In such cases, the Centre’s experts seek advice from different professional associations and documents detailing evidence-based practices. This enables them to obtain information facilitating the compilation of a local protocol on postpartum bleeding and to organise further training on the prevention of postpartum infections. For monitoring, the Centre makes use of the WHO monitoring tool for evaluating effective perinatal care (EPC) in project facilities in a slight adaptation in line with conditions in Kyrgyzstan. The WHO standard assessment tool for the quality of hospital care for mothers and newborn babies is currently being aligned with the situation in Kyrgyzstan and will later replace the method currently in use.

The GIZ Regional Programme also subsidised clinical initiatives at local level. The following have been implemented successfully:

- Importance of temperature control as a basic factor for good health,
- Improved diagnostics and treatment of illnesses arising in the perinatal period, in newborn pathology and neonatology departments,
- Introduction of effective perinatal care in Issyk Kul Province,
- Awareness raising on health and rights among pregnant women,
- Healthy Generation;
- Mentoring system for all territorial hospitals in the Oblast.

Particular attention was given to the Peer-to-Peer Review, as experience has shown that this kind of review fosters communication on QoC improvements and promotes adherence to certain practices. Reviews conducted by experienced midwives, for instance, showed that discussions about responsibility sharing or the implementation of protocols are discussed more openly among peers than
with trainers or a supervisor. Peer reviews also made colleagues feel confident about their skills and confirmed they were acting in accordance with professionally accepted norms. As part of peer reviews, peers and mentors revised clinical protocols and helped develop locally adapted protocols (for example in Ton Territorial Hospital).

The Centre developed the following tools that can be readily applied in other regions or countries:

- Resource Centre concept and process (Institutionalisation),
- Methodology for monitoring clinical practice and performance,
- Quality Assurance Tools,
- Medical standards for Maternity Departments,
- Manuals for peer review,
- Health personnel guidelines for effective communication and counselling with families.

Birth Preparedness Schools in Karakol City

Two birth preparedness schools (BPS) were opened in Karakol: one in the Family Medicine Centre (primary health care level) and the other on the premises of the Maternity Department of the Issyk Kul Merged Oblast Hospital (tertiary level).

BPS in the Oblast Family Medicine Centre

The school was opened in 2011 on FMC premises, giving pregnant women convenient access to consultations. To promote BPS services and attract people, the GIZ Regional Programme developed a set of promotional and information materials on pregnancy, childbirth, postpartum care and newborn care, as well as recommendations for women and their families. Current staffing at BPS - a nurse, psychologists and a lawyer working part time - widens the scope of services to include counselling on rights and gender equality, as well as important aspects of psychological support which are otherwise often neglected. The BPS is financed from the FMC budget and is open three mornings a week. It has communication equipment and a large library of materials and CDs. As soon as a woman registers her pregnancy at her family doctor, she is advised to contact the BPS. All BPS instructors have received special training and are sensitive to cultural and gender issues. Three types of courses are available for pregnant women and couples, depending on the time they have available (4-hour/6-hour/and 16-hour courses). All courses communicate basic information about pregnancy, childbirth, postpartum care and baby care; the longer the course, the more information is provided.

During these antenatal classes, pregnant women and their partners learn about how pregnancy evolves, adequate nutrition during pregnancy and general health-promoting behaviour for pregnancy. They also discuss behaviour during childbirth, newborn care, breastfeeding, as well as family planning after delivery. Expectant mothers are trained to use relaxation and massage techniques. The course also equips partners with the knowledge and skills they need to support during childbirth.

One BPS instructor stated that she receives the names of the women who have registered their pregnancies once a week by the family doctors, which enables her to plan their visits to the
school herself. In her experience, all pregnant women come to the BPS at least once during their pregnancy. The women also have her mobile number so as to contact her for advice outside of the BPS opening hours.

### BPS in the Resource Centre

The BPS, which opened its doors in 2011, is located on the premises of the Maternity Department of Issyk Kul United Oblast Hospital and is managed by its Resource Centre. To date, around 700 women who were treated in the Maternity Department have taken part in different BPS courses. The school offers advice for expectant mothers with complications and those at risk of premature delivery. The instructor offers a four-hour course for women experiencing problems during pregnancy to inform them about complications, how to prepare for a Caesarean section or how to prepare for childbirth in general, especially if the woman has not attended BPS classes. This applies in particular to women from remote areas, where access to schools is limited.
4.2 Balykchy Territorial Hospital

The Hospital covers the population of Balykchy and the nearby villages of Ton Rayon. Women from other Oblasts whose mothers live in Balykchy also come here to give birth. In 1998, Balykchy Territorial Hospital was certified as a ‘Baby Friendly Hospital’ as part of the WHO/UNICEF Initiative.

**Major Achievements**

- Development and application of local standards and procedures to manage complications during pregnancy and childbirth and when treating newborns.
- Adequate care and support for pregnant women living with HIV and application of protocols and standards concerning PMTCT.
- Regular monitoring and mentoring to ensure implementation of the standards/clinical protocols on safe motherhood in routine practice.
- Visual aids on safe motherhood (posters, algorithms etc.) in nurse posts and delivery rooms.

Based on the ‘Near-Miss Cases Review’ of the WHO Initiative ‘Beyond the Numbers: Reviewing Maternal Deaths and Complications to Make Pregnancy Safer’, staff conduct a regular situational analysis to expose gaps at the different levels of care and to jointly identify multi-level solutions.

Quarterly quality review reports are sent to the primary health care unit, a Family Medicine Centre or health station for review and feedback. The department responsible for mother and child health at the Ministry of Health ranks the Maternity Unit in Balykchy as the best health facility in the country for implementing Near-Miss Cases Reviews. According to the department, the Unit serves as a good example in experience sharing.
knowledge management and supportive supervision for the entire country.

With the support of the GIZ Regional Programme, hospital management was able to draw up a list of measures to improve the infrastructure in the maternity unit. The funds were provided by the Issyk Kul Region Development Fund, which is backed by the Canadian operators of the Kumtor gold mining company. In 2010, all window frames in the maternity wards were replaced by modern plastic windows and in 2011 the water supply and sewage systems were renovated. New beds with sufficient space to comfortably accommodate the mothers and their newborns were procured using hospital funding. The women enjoy rooms equipped with two to three beds and wash basins that have hot and cold water.

As a result of extensive basic and further training as part of the GIZ Regional Programme, staff has been able to improve their professional skills and can now respond appropriately to complications that arise during pregnancy and labour. All health staff participated in the training programmes and short-term courses organised by GIZ. The focus was on strengthening the practical skills of doctors and nurses.

"This is the second time I’ve been here, although I live in Bishkek. I find this place very comfortable and friendly for mothers and their newborns. The doctors and midwives are very attentive and well-trained. Having a skilled midwife and a partner (my mother) here during the delivery made me feel safe and well looked after. After delivery, my baby was handed to me very quickly and the doctor came to advise me on breastfeeding. During my two days here, I was never left alone with my concerns and there was always a nurse to consult."

- A mother
Cooperation with KfW and GIZ has proved very efficient over the past eight years. The equipment supplied in 2005 is in good working order and fully functional with few exceptions. It would be great, if we could be further supported in maintaining the equipment. The trainings were professionally organised and gave us practical skills to handle critical situations; we can apply our theoretical knowledge when using the equipment. Clinical protocols and algorithms developed as part of the programme are practical hands-on tools that we now employ in our daily work. Hospital staff is aware of critical issues in the management of antenatal care. However, we still have to improve coordination with PHC units and gynaecologists from the Family Medicine Centres. Increasing PHC knowledge and skills will also improve the situation with regard to perinatal mortality and near-miss cases of maternal death.

- A staff member

Birth Preparedness School

The BPS was opened in 2010 in the Balykchy Family Medicine Centre following a GIZ recommendation with the aim to promote safe and supportive deliveries. GIZ supplied the necessary equipment (balls, simple fitness equipment, TV and video set, computer and printer) and material (patient information materials, CD etc.). GIZ facilitated trainings, where trainers were instructed in counselling methods, pregnancy management and partnership in delivery. The school is currently financially secure as it is a department of the Family Medicine Centre. Two full-time staff members (a nurse and a family doctor) work there for eight hours each day and apply an open-door policy for expectant mothers. All BPS services are free of charge.

The BPS informs pregnant women and their partners about pregnancy phases, birth preparedness, labour and childbirth, as well as antenatal and neonatal care. One of the main aspects the instructor discusses are the warning signs that can occur in mothers and babies post-delivery, that require immediate qualified medical assistance. Services also include pregnancy exercises and breathing techniques to help prepare women for birth. Although information material is only available in limited quantities, staff has their own printed materials that course participants can copy for use at home.

Over the last two years, BPS has established friendly relations with the hospital’s maternity department. At the end of the BPS courses, the women and their partners are taken on a tour of the maternity ward to familiarise them with the facility and the medical personnel working there.

The GP normally advises expectant mothers to contact the BPS as soon as they register their pregnancies. During pregnancy, expectant mothers visit the school five to six times for at least 15 to 20-minute discussions on different important issues. We also show them some exercises specifically for pregnant women. I think it would be a good idea to establish a regional BPS network to enable us to exchange our experience and share our skills.

- A staff member
4.3 Cholpon Ata Territorial Hospital

Cholpon Ata Territorial Hospital is located at the heart of a summer vacation area and serves the population of Issyk Kul Rayon. Its delivery ward was equipped with the necessary medical apparatus in 2006 as part of the KfW project ‘Mother and Child Health II and III’. In 2009, the hospital became a pilot facility of the GIZ Regional Programme ‘Health in Central Asia’ and has since benefitted from the programme’s knowledge sharing and capacity building activities.

Women increasingly choose delivery positions themselves.

- Application of effective tools for labour management, especially during the third phase.
- Improved newborn care, including primary, emergency and intensive neonatal care.
- Introduction of a clear referral system for transferring critical pregnancies to a higher level of care.
- Development and application of local standards and procedures to manage complications during pregnancy and childbirth and when treating newborns.
- Visual aids on Safe Motherhood (posters, algorithms etc.) in nurse posts, delivery rooms and patient rooms.

With GIZ support - and following corresponding awareness-raising - hospital management was able to identify a suitable new location for the maternity department, which was previously housed by the old laboratory building. Resources for building rehabilitation were obtained from the Issyk Kul Region Development Fund, which is supported by the Canadian-operated Kumtor gold mining company. The renovated department was re-opened in 2012 and now boasts comfortable two to three-bed rooms, equipped with wash basins with hot and cold water, as well as adequate wastewater

| Population | 75,533 |
| No of deliveries in 2010 | 1038 |
| No of deliveries in 2011 | 1365 |
| No of deliveries in 2012 | 1317 |
| No of beds in maternity ward | 15 |
| No of staff | 15 |
| Partner Deliveries | 45% |

Major Achievements

- Introduction of a clear registration and monitoring system for premature deliveries.
- Introduction of clinical protocols and algorithms in daily routine work.
- Safe and supportive deliveries – partnership in delivery: The proportion of deliveries performed with a partner present increased to 45%.
installations. Thanks to a new heating system, the temperature in the ward can now be controlled. New patient beds are set to be procured over the coming months using the hospital’s own funds.

Maternity department staff was trained on clinical protocols, effective perinatal and antenatal care (including newborn care and primary resuscitation) and delivery techniques. In order to secure the necessary medical equipment, management is looking into possible options. In 2011, an application was submitted to the Japanese Embassy for grant assistance through the Grassroots Programme on Health in order to procure the medical equipment needed for emergency care and to secure adequate care for mothers and newborns. The new equipment was finally inaugurated in 2013.

Given that timely referrals from the primary health care level remain a challenge in terms of providing prompt access to quality medical services, the maternity department managers plan to encourage gynaecologists to work with the family doctors and nurses at feldsher midwife posts (FAPs) and village committees. The major focus will be on ensuring the early registration of pregnancies with family doctors so that risks can be identified at an early stage and the pregnancies managed in line with clinical protocols and guidelines.

To increase people’s awareness of possible problems and risks during pregnancies, articles about safe pregnancy, partner deliveries, the importance of breastfeeding etc. are published in a weekly newspaper. A booklet is now planned for the near future, essentially to inform pregnant women about critical symptoms during pregnancy, and to help them prepare for childbirth and explain the advantages of partnership in delivery.

Over the past 5 years, our work methods have changed and the skills we have acquired during training help us in our daily work. I personally have become more confident about my work and use the knowledge gained during skills upgrading. The trainings were very practical and we learnt how to use clinical protocols and, more importantly, trainers were able to explain what we have to change, and why. The training for nurses and midwives helped us to mobilise all the skills available in the department for the benefit of the women in labour and their newborn babies. The tools suggested for quality assurance (indicator monitoring, error reports on critical and near-miss cases) have helped us to improve our work and facilitated more open communication within the team.

- A staff member
There is a huge difference to what it was like before. The rooms are more comfortable and warm with running water and toilet and shower facilities. My baby was given to me straight after delivery and the nurse explained all about breastfeeding to me. Later, the doctor advised me on how I should look after my new baby and about critical signs I should look out for in my baby’s health and behaviour so that I know when to get medical help. I am happy that members of my family can come and visit at convenient times.

- A mother
4.4 Jeti–Oguz Territorial Hospital

Jeti–Oguz Territorial Hospital is located 30 km from the Oblast capital of Karakol. As a rule, the maternity ward deals with normal physiological deliveries; complicated or critical cases are referred to higher levels of care. As part of the KfW project ‘Mother and Child Health II and III’, Jeti–Oguz Maternity Department was supplied with vital medical equipment in 2006. In 2009, the hospital became a pilot facility of the GIZ Regional Programme ‘Health in Central Asia’ and has since benefitted from the knowledge-sharing and capacity-building measures run by the programme. The Hospital was awarded the WHO/UNICEF ‘Baby Friendly Hospital’ status.

**Population** | 82,085
--- | ---
No. of deliveries in 2010 | 1327
No. of deliveries in 2011 | 1255
No. of deliveries in 2012 | 1208
No. of beds in maternity ward | 22
No. of staff | 15
Partner Deliveries | 40%

40% of women choose their delivery positions themselves.

- Application of effective tools for labour management, especially during the third phase.
- Implementation of effective perinatal care methods (including antenatal and neonatal care).
- Use of a clear referral system for transferring critical pregnancies to a higher level of care (in 2012, a total of 20 newborns were referred to a higher level and 16 critical pregnancies were immediately referred to a higher level hospital in the Oblast).
- Application of local standards and procedures to manage complications during pregnancy and childbirth, and for the treatment of newborns, as well as administration of timely referrals of critical pregnancies and newborns.
- Visual aids on Safe Motherhood (posters, algorithms etc.) in nurse posts, delivery rooms and patient rooms.

The GIZ Regional Programme assisted the personnel in rolling out clinical guidelines and basic quality assurance methods. Based on the ‘Near-Miss Cases Review’ of the WHO Initiative ‘Beyond the Numbers: Reviewing Maternal Deaths and Complications to Make Pregnancy Safer’, staff conduct regular situational analyses to pinpoint critical issues in care of risky
pregnancies. Quarterly quality review reports are sent to the primary health care unit, i.e. the Family Medicine Centre or health station, for review and feedback. The reports are stored on a computer and available to mentors or for peer reviews. Every new mother is informed extensively about how to care for their newborn babies – especially the advantages of breastfeeding and why babies should not be wrapped in cotton blankets.

Supported by the local authorities and hospital management, the water supply and sanitation system was renovated in 2011, including the addition of new toilets and boilers. A shower was installed in one of the delivery halls.

A room was set aside in the maternity ward to prepare pregnant women for delivery and to offer post-delivery support (including psychological counselling). Each morning the neonatologist invites mothers for a brief talk or lecture on baby care and answers any questions the mothers may have. Supported by the GIZ Regional Programme ‘Health in Central Asia’, the room has been equipped with a computer, TV set and DVD player. Furthermore, gymnastic balls and wall bars have been installed; and a nurse is available to instruct women in using the equipment. The training materials developed with GIZ support and the Resource Centre in Karakol enable staff to improve their knowledge of techniques and methods.

The training provided by the GIZ programme will completely change the way we work. But it will take time to implement these changes and personnel need more time to think them over. We particularly need additional courses on emergency obstetric care and newborn resuscitation. We welcome the idea of partner deliveries, as this makes family members more appreciative of the services we provide and therefore more satisfied: they can see what is being done and how. Partner deliveries really took off in 2012 and we expect more of them in the future. We still need to do more to educate the population about healthy pregnancy, reproductive health and family planning; otherwise it will be difficult to achieve the objective of lowering maternal and child mortality at hospital level.

- A staff member

The staff was very friendly during delivery and the patient rooms are very pleasant. I like the idea of being with my baby all the time – this makes me and my husband feel more secure. I have heard about the birth preparedness schools, but unfortunately we don’t have one in my small village. The idea of offering antenatal and post-natal classes here in the maternity ward is very good.

- A mother
4.5 Ak - Suu Territorial Hospital

Ak-Suu Territorial Hospital is located 15 km from Karakol, the capital of the Issyk Kul Oblast, and serves the Rayon Ak-Suu. Ak-Suu maternity ward mainly handles normal physiological deliveries without complications. As part of the KfW project ‘Mother and Child Health II and III’, the Maternity Department was supplied with the required medical apparatus in 2006. In 2009, the hospital became a pilot facility of the GIZ Regional Programme ‘Health in Central Asia’ and has since benefitted from the programme’s capacity-building and knowledge-sharing measures.

| Population | 57,600 |
| No of deliveries in 2010 | 1375 |
| No of deliveries in 2011 | 1783 |
| No of deliveries in 2012 | 1332 |
| No of beds in maternity ward | 25 |
| No of staff | 25 |
| Partner Deliveries | 25% |

Major Achievements

- Introduction of clinical protocols and algorithms in everyday routine work.
- Safe and supportive deliveries – partnership in deliveries: The proportion of deliveries performed with a partner present increased to 25%. Women increasingly choose delivery positions themselves.
- Application of effective tools for labour management, especially during the third phase.
- Implementation of effective perinatal technologies (including antenatal and neonatal care).
- Establishment of a clear referral system for transferring critical pregnancies to a higher level of care: In 2011, a total of 64 newborns were referred to a higher level hospital in the Oblast capital.
- Application of local standards and procedures to manage complications during pregnancy and childbirth and for the treatment of newborns along with the administration of timely referrals of critical pregnancies and newborns.
- Visual aids on safe motherhood (posters, algorithms etc.) in nurse posts, delivery rooms and patient rooms.
Thanks to the Issyk Kul Region Development Fund, which is backed by the Canadian-operated Kumtor gold mining company, funds were allocated for minor rehabilitation works, such as the installation of shower cabins and boilers in delivery rooms. The hospital administration allocated funds to repair sanitary installations and a heating system for delivery rooms. New room temperature controls allow the temperature to be adapted as needed. The hospital management is planning to procure new beds and to finish off renovation work on the electricity supply lines from its own funds in 2013. The department has a secure supply of the most important supplies and medicines.

All staff of the Maternity Ward took part in training on emergency obstetric care, primary newborn resuscitation and effective perinatal care, which GIZ helped organise at the Resource Centre belonging to the Maternity Hospital in Karakol. Doctors and nurses welcomed the close proximity of the training venue.

Although the use of clinical protocols is part of our daily routine, we still want to improve our practice and adapt the available standards to our environment. Our nurses and midwives found the peer-to-peer review very useful in helping them change their attitude towards the new techniques and in terms of engaging openly with their mentors about any problems they had in applying this new knowledge in their daily routines.

- A staff member

Equipping the maternity unit with all the necessary apparatus and items is a top priority for the management of our hospital. Having said that, I don’t just mean drugs and medicine, of which we have copious supplies, but above all the renovation of the delivery rooms and patient rooms, and the creation of favourable working conditions for hospital staff, as we know that staff fluctuation remains a problem in many small hospitals. We are planning to procure computers and to install an internet connection to give doctors better access to information.

- A staff member

This is my third delivery. While I was registering at the maternity ward, I was told I could have a family member with me when I gave birth. Although we were not prepared for this, my husband agreed, and I must say, I felt more comfortable having him with me. He was able to care for the baby while I had some rest after the delivery. And it is great that we have a shower here – it makes a big difference in terms of hygiene. I have also noticed a change in attitude among the nurses; they seem more open to communicate.

- A mother
4.6 Ton Territorial Hospital

Ton Territorial Hospital is located in Issyk Kul Oblast and serves the population of Ton Rayon. The maternity ward mainly handles normal physiological deliveries without complications. It is a representative example of a typical maternity ward in a territorial hospital in the Republic of Kyrgyzstan. As part of the KfW project ‘Mother and Child Health II and III’, the maternity ward was fitted with the required medical apparatus in 2006. In 2009, the hospital became a pilot facility of GIZ’s Regional Programme ‘Health in Central Asia’, and has since benefitted from the programme’s capacity building and knowledge sharing measures.

The large number of medical personnel migrating to Kazakhstan poses a serious challenge to the healthcare system in Ton. According to the head of the Maternity Hospital, in 2012 alone, some 27 doctors moved to Kazakhstan. The hospital was unable to replace these specialists as Ton is remote, making it unattractive especially for young doctors. Thus, retired health professionals, some of whom were well over 60, had to be called back to the hospital and the Family Medicine Centre. Moreover, since 2011, this Rayon has no longer had an anaesthetist, which means all operations have to be conducted in Balykchy.

Major Achievements

- Introduction of clinical protocols and algorithms in everyday routine work.
- Introduction of minimally-invasive techniques during delivery.
- Women increasingly choose delivery positions themselves.
- Application of effective tools for labour management, especially during the third phase.
- Introduction of effective perinatal care methods (including antenatal and neonatal care).
- Due to improved practices and referrals – no maternal deaths in 2011 and 2012.
- Application of local standards and procedures to manage complications during pregnancy and childbirth and for the treatment of newborns, along with the organisation of timely referrals for critical pregnancies and newborns.

| Population | 49,000 |
| No. of deliveries in 2010 | 646 |
| No. of deliveries in 2011 | 641 |
| No. of deliveries in 2012 | 616 |
| No. of beds in maternity ward | 10 |
| No. of staff | 10 |
| Partner Deliveries | 10% |
• Visual aids on safe motherhood (posters, algorithms etc.) in nurse posts, delivery rooms and patient rooms.

Using funds from the Issyk Kul Region Development Fund, which is backed by the Canadian-operated Kumtor gold mining company, as well as the hospital’s own budget, minor rehabilitation works, such as roof repairs and the installation of shower cabins and boilers in delivery rooms were facilitated. The hospital administration made funding available for a better heating system, the renovation of delivery rooms and procurement of new beds. As a result, the temperature in the maternity ward can now be adjusted as required.

All staff of the maternity ward took part in trainings on emergency obstetric care, primary newborn resuscitation and effective perinatal care at the Resource Centre set up at the Oblast-level Maternity Hospital in Karakol with GIZ support. The training and information materials provided are used in daily work and the newborn dummy supplied as a training tool is used during the quality assurance meetings – and to demonstrate critical issues.

Since Ton Rayon does not have a BPS, hospital management has offered to set up its own BPS in the same building wing where the maternity unit is located. This will enable the doctors and nurses themselves to advice expectant mothers and their family members on their pregnancy. This BPS facility is scheduled to start running in 2013 and it is hoped that the number of partner deliveries will increase thanks to the information provided to the mothers and their families.

We are a small maternity unit but we are pleased to be part of the GIZ Health Programme, as this has enabled us to hone and apply new skills in perinatal and neonatal care, and to improve the quality of our work to help newborns make a healthy start in life. The atmosphere in the team has become friendlier and we trust each other more. We have confidence in each other’s skills and experience, and have become more self-confident. Improved referral practices help us to refer critical pregnancies to the Oblast-level Hospital in time, so that we no longer have any maternal deaths here. My colleagues found the mentoring programme extremely helpful for improving quality. Before, when specialists from the province hospital visited us, they were very critical and were essentially only out to punish poor performance. Nowadays, the nurses and midwives really look forward to their visits because they take place in a friendlier atmosphere, are practical in character and assist in improving working patterns.

- A staff member
I was here before and it has changed a lot – the delivery rooms are now much more pleasant and comfortable. The midwife told me I could choose the delivery position myself and that I’m allowed to bring a partner with me. I chose to deliver in bed and my girlfriend was present. I must say that really made all the difference. I was not as stressed as before; psychologically it’s much better and I’ll tell all my friends who are about to become mums about the advantages. The beds are large and comfortable; even better than at home. It is also nice that my newborn daughter can wear the clothes we bought her before coming here. Even though it is not my first baby, the nurse explained the benefits of breastfeeding and she also checked to see how I was doing it.

- A mother