UN MULTI-PARTNER HUMAN SECURITY TRUST FUND
FOR THE ARAL SEA REGION IN UZBEKISTAN

UNICEF and UNFPA Joint Programme

Improvement of Quality of Perinatal Care Service to Most Vulnerable Mothers and Newborns

MPTF OFFICE GENERIC ANNUAL PROGRAMME
NARRATIVE PROGRESS REPORT

REPORTING PERIOD:
1 JANUARY – 31 DECEMBER 2020

TASHKENT 2021

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Programme Title & Project Number	Country, Locality(s), Priority Area(s) / Strategic Results
Programme Title: Improvement of Quality of Perinatal Care Service to Most Vulnerable Mothers and Newborns Programme Number *(if applicable)* MPTF Office Project Reference Number: 00117258	Country/Region: Uzbekistan/Karakalpakstan Priority area/ strategic results: UNDAF Outcome 4: By 2020, all people benefit from quality, equitable and accessible health services throughout their life course
Participating Organization(s)	**Implementing Partners**
Organizations that have received direct funding from the MPTF Office under this programme UNICEF, UNFPA	National counterparts (government, private, NGOs & others) and other International Organizations Ministries of Health of Uzbekistan and Karakalpakstan

Programme/Project Cost (US$)		Programme Duration	
Total approved budget as per project document: MPTF /JP Contribution: *by Agency (if applicable)*	$1,619,666 UNICEF: $980,344	Overall Duration	21
Agency Contribution *by Agency (if applicable)*	UNFPA: $639,322 UNICEF: $155,489 UNFPA: $116,133	Start Date	26.08.2019
Government Contribution *(if applicable)*	$0	Original End Date	31.12.2020
Other Contributions (donors)*(if applicable)*	$0	Current End date	30.04.2021
TOTAL:	$1,829,155		

Programme Assessment/Review/ Mid-Term Evaluation	Report Submitted By
Assessment/Review - if applicable please attach ☐ Yes ■ No Date: *dd.mm.yyyy* Mid-Term Evaluation – *if applicable please attach* ☐ Yes ■ No Date: *dd.mm.yyyy*	Name: Munir Mammadzade Title: Representative Participating Organization (Lead): UNICEF Email address: mmammadzade@unicef.org

CONTENTS

LIST OF ACRONYMS

CPAP	Continuous positive airway pressure
ECG	Electrocardiography
GOU	Government of Uzbekistan
HMIS	Health Management Information System
ICU	Intensive Care Unit
JP	Joint Programme
KSMI	Karakalpak State Medical Institute
MCH	Maternal and Child Health
MOH	Ministry of Health
OB/GYN	Obstetrics and Gynecology
PD	Presidential Decree
PHC	Primary Healthcare
ROK	Republic of Karakalpakstan
ROU	Republic of Uzbekistan
SDGs	Sustainable Development Goals
UNDAF	United Nations Development Assistance Framework
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund

EXECUTIVE SUMMARY

The present report for the 'Improvement of Quality of Perinatal Care Service to Most Vulnerable Mothers and Newborns' programme covers the period of January-December 2020. Covering the second year of the programme, the report prepared jointly by the Ministry of Health (MOH) of Uzbekistan, UNICEF and UNFPA, aims to summarize the critical achievements, results and lessons learned from the implementation of the programme.

During the reporting period, UNICEF and UNFPA significantly contributed to the Government's efforts to improve the quality of perinatal services at secondary and primary levels in the Republic of Karakalpakstan, by improving infrastructure, upgrading equipment, and building the capacity of medical professionals of three district perinatal centers, specifically of the Kungrad and Beruniy districts and Nukus City. All three serve as inter-district perinatal centers and admit women from neighboring districts.

There are key results which have been achieved during the reporting period, despite the global pandemic and certain restrictions which have existed in the country from March 2020:

- Renovations of the Kungrad and Beruniy perinatal centers and of the Nukus City Perinatal Center were completed, which included installing a power generator, automatic voltage regulators, and new electrical wiring to ensure the smooth operation of the high-value equipment to be installed. Renovation works also included installing seven air conditioners, a water tank, water pumps and filters, and four boilers to ensure a reliable supply of cold and hot water, which the facilities had lacked. Renovations were completed in the summer of 2020, significantly improving the perinatal centers' infrastructure and allowing the centers to install and use a large set of modern equipment covering all significant aspects of care for mothers and newborns.
- Procurement of more than 150 units of equipment for delivery and operating rooms, as well as sets of surgical instruments, ECG devices (2 pieces), USD machines (3 pieces), CPAP machine (1 piece) and other equipment, according to the list and specifications agreed with the Ministry of Health have been completed, and all equipment is to be delivered in March-April 2021.

- More than 8,944 mothers and 8,999 newborns have benefited from upgraded infrastructure and improved quality of care at the target perinatal centers.
- Significant progress has been achieved in some target facilities:
  - the antenatal mortality rate decreased by almost 40 percent (5 cases in 2019 vs. 3 cases in 2020) at the Nukus City Perinatal Center,
  - early neonatal deaths decreased by nearly 30 percent (35 cases in 2019 vs. 25 in 2020) at the Beruniy Perinatal Center, and
  - a decreased of 17 percent (12 cases in 2019 vs. 10 cases in 2020) at the Kungrad Perinatal Center.
- All target facilities have implemented their quality improvement plans with guidance from national and international experts:
- Two facilities (Kungrad and Nukus City Perinatal Centers) reached the target of 100 percent of post-partum women covered by standard obstetric monitoring in the early post-partum period to prevent near-miss and maternal death cases.
- Two facilities (Beruniy and the Regional Perinatal Centers) increased the number of healthy newborn babies born by caesarean section (not getting into the ICU), attached to the breast, during the first hour of life from 10 percent to 60-70 percent on average for both implementing facilities.
- Almost all planned capacity-building activities were conducted in 2020. A total of 538 healthcare workers were trained on evidence-based maternal and newborn survival practices. In response to the imposed COVID-19 lockdown restrictions, UNICEF and UNFPA procured ICT equipment for distance learning. Trainings with practical components were conducted in November-December 2020, when the Government lifted strict lockdown measures.
- Supportive supervision visits were conducted in October-December 2020 by three groups consisting of three highly qualified specialists. These visits focused on maternal health services, newborn care services, human resources, laboratory services, information availability, education and communication materials, and infrastructure. The national experts built the capacity of previously trained local specialists to provide supportive supervision for colleagues in other perinatal centers. As a result, supportive supervision training was replicated at an additional five perinatal centers (Chimbay, Kanlikul, Turtkul, Ellikqala, Muynak).
- A total of 50% of all cases (20 out of 40 cases) of perinatal death and 20% of all near-miss maternal cases (59 out of 300) were reviewed and audited, and context-appropriate courses of action were adopted under guidance from national trainers.

This Joint Programme is funded by the MPHSTF for the Aral Sea region, which is generously supported by the Governments of Uzbekistan, Norway, Finland, the Republic of Korea, and the European Union.

Government of Uzbekistan | Government of Finland | Government of the Republic of Korea | Government of Norway | European Union

I. PURPOSE

The Government of Uzbekistan (GoU) has prioritized the reduction of maternal and newborn deaths and stillbirths in line with global efforts, as embodied by the Sustainable Development Goal 3 (SDG 3). By 2030 the stated goal is to reduce the global maternal mortality ratio to less than 70 per 100,000 live births; as well as, end preventable deaths of newborns and children under five years of age, aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births. The GoU has developed a national strategy for 2019-2025 outlined in Presidential Decree #4513 (dated 11.08.2019), which aims to improve the quality and coverage of healthcare services to women of reproductive age, pregnant women, and children.

This Joint Programme's (JP) general purpose is to improve access to quality perinatal health services for the most vulnerable mothers and newborns in the Republic of Karakalpakstan (ROK) by equipping three perinatal centers and building the capacity of healthcare staff to provide advanced maternal and newborn survival services. Within the framework of the programme, UNICEF and UNFPA have contributed to achieving the United Nations Development Assistance Framework (UNDAF) Outcome 4, which is: 'by 2020, all people benefit from quality, equitable and accessible health services throughout their life course', measured by Indicator 4.3. on 'percentage of health facilities (maternities, child hospitals, and primary healthcare [PHC] facilities) in targeted regions applying newborn/child survival standards/protocols as recommended by WHO and UNICEF'.

The expected outcome of this JP is improved quality as well as equitable and sustainable coverage of perinatal health services, and to contribute to human security in the Aral Sea region with a special emphasis on maternal and newborn healthcare, which is in line with the MPHSTF result framework Outcome 4: the overall health of the local population improved, and healthy lifestyle is promoted.

Photo 1: Maternity ward at the Kungrad Perinatal Centre

II. RESULTS

i) Narrative reporting on results

This JP supports MPHSTF Outcome 4 on overall health of the local population is improved, and healthy lifestyle is promoted with the following indicators:

- ***Indicator 4.1.*** *percentage reduction in infant and maternal mortality: - infant mortality rate (up to 1 year, per 1000 live-born; - maternal mortality (per 100,000 live birth);*
- ***Indicator 4.2.*** *percentage of the population satisfied with health services.*

The JP helped made progress on contributing to MPHSTF Outcome 4: The annual statistics from MOH of RoK for 2020 for the target three facilities showed considerable improvements in both maternal and newborn survival:

All three second-level perinatal centers equipped with modern equipment and up-to-date evidence-based maternal and newborn survival practices cater not only to their districts but also to neighboring ones, thus raising overall satisfaction with healthcare services in eight targeted districts. During the end-line survey, patients' overall satisfaction with the quality of services in target perinatal centers will be assessed and reported.

The JP also supports following additional MPHSTF outputs:

MPHSTF Output 10 on increased investment in local health services and pharmacies (e.g., facilities and equipment).

- ***Indicator 10.1.*** *Amount of investment in local health infrastructure with the support of MPHSTF, mln. USD;*
- ***Indicator 10.3.*** *Number of medical institutions equipped with equipment.*

In support of the MPHSTF Output 10, more than 65 percent ($1,065,048) of the programme budget allocation is for the procurement of equipment and infrastructure upgrading at the three perinatal centers.

MPHSTF Output 12. The quality of healthcare has improved through increased professional education.

- ***Indicator 12.1.*** *Number of healthcare professionals educated and retrained through distance learning.*

In support to the MPHSTF Output 12, the project team has renovated a training room at the Regional Perinatal Center in Nukus, provided furniture for training rooms at the Regional Perinatal Center and the Karakalpak Medical Institute, and equipped the Regional Perinatal Center, the Karakalpak Medical Institute, and the Beruniy, Kungrad and Nukus City perinatal centers with sets of web-conferencing equipment and PCs for face-to-face trainings, online learning, and coordination meetings. To date, more than 300 healthcare workers have been trained in up-to-date newborn and maternal survival practices through distance learning in Karakalpakstan.

The abovementioned achievements complement **UNDAF Outcome 4** that by 2020, all people benefit from quality, equitable and accessible health services throughout their life course, measured by the indicator on *percentage of health facilities (maternities, child hospitals, and PHC facilities) in targeted regions applying newborn/child survival standards/ protocols, recommended by WHO and UNICEF (Indicator 4.3).*

The JP contributed to UNDAF Outcome 4 by having all three target perinatal facilities in Beruniy, Kungrad, and Nukus City fully implement standards and protocols recommended by WHO and UNICEF. During the reporting period, the JP trained a total of 538 healthcare providers through face-to-face and distance learning modalities on these protocols and standards in eight targeted districts of ROK. Currently, with MOH's technical support, they are introducing them into their practice.

JP Outcome: By 2020, mothers and newborns in the ROK, especially the most vulnerable, have received quality perinatal healthcare services.

After thorough analysis, the MOH has assigned three maternal facilities in Kungrad, Nukus City, and Beruniy which cover geographically most of Karakalpakstan's population (8 districts out of 16) as future second-level perinatal facilities, i.e., where most complicated cases could be referred, and advanced specialized care could be provided. Situation and determinant analyses have suggested that inadequate infrastructure, lack of equipment, poor quality of health services (especially at referral facilities), and insufficient knowledge and practice of caregivers are all significant bottlenecks for mother and child survival and wellbeing.

The JP outputs have focused on eliminating the bottlenecks mentioned above by equipping the three facilities with modern equipment and enhancing their staff's capacity on up-to-date, evidence-based maternal care and newborn survival strategies and protocols. Furthermore, maternal and newborn health improvements have been achieved through a comprehensive approach which combines supply, quality and demand-side interventions. Improving infrastructure, making available modern equipment and ensuring access to quality maternal and newborn care, and influencing populations' knowledge and attitudes, are all crucial strategies employed by the JP.

The following two indicators measure the progress towards the JP outcome:

JP Outcome indicator. Proportion of survival of low-birth-weight newborns (1,000-2,499 gr.) in targeted facilities.

This integral indicator measures the perinatal service's overall capacity to provide routine and advanced care to mothers and newborns. It was estimated through the BABIES matrix that, on average, 80 percent of low-birth-weight newborns in the target facilities currently survive (2020 data), compared to a baseline of 76 percent as planned during the project design stage.

Table 1. *The BABIES (Birthweight group and Age-at-death Boxes for an Intervention and Evaluation System) matrix table from the Nukus City Perinatal Center for 2020*

Birth weight	Number of newborns	Still birth	Antenatal death	Intranatal death	Early neo-natal death
500-999 gr.	1				1
1,000-1,499 gr.	1				
1,500-2,499 gr.	26	1	1		
2,500<	2,021	4	4		5
Total	**2,049**	**5**	**5**		**6**

JP Outcome indicator. Percentage of mothers satisfied with perinatal health services in selected facilities.

UNFPA conducted exit interviews to measure the percentage of mothers satisfied with perinatal health services received at selected facilities as a part of baseline assessment: 66.4 percent of mothers were satisfied with services. Exit interviews in 2020 has shown that the implementation of family-centered and evidence-based practices raised satisfaction among mothers up to 80 percent.

The JP Output 1. Secondary level perinatal care facilities have improved infrastructure and are equipped with modern equipment to ensure access by the population to evidence-based and equity-perinatal health services.

This output aims to improve sustainable access to perinatal healthcare services and to achieve a reduction in equity gaps through addressing priority bottlenecks in infrastructure and the availability of essential equipment for women with complicated deliveries, small newborns, and sick newborns in Kungrad, Nukus City, and Beruniy district perinatal centers. It is therefore concordant with MPHSTF's Output 10.

The following two indicators accurately reflect progress for this output:

Indicator 1.1. Number of medical institutions with improved infrastructure.

After careful assessment of existing problems with infrastructure, UNFPA, together with the Ministry of Health of the Republic of Karakalpakstan, developed a list of necessary renovation works. This renovation was planned for the Nukus City Perinatal Center, and the Kungrad and Beruniy perinatal centers. The main goal of the planned renovation was to maximally improve existing premises for district perinatal centers which serve women from their districts and neighboring districts at the same time, and as such operate as inter-district perinatal centers.

NUKUS CITY PERINATAL CENTER

To ensure the safety and stability of electricity in emergency rooms, operating and intensive delivery rooms, and in key departments such as intensive care for the pathological pregnancy room, main electricity cables were dismantled and changed to new and more capable ones. Electrical boxes were updated, and new ones, along with electrical plugs in the rooms, automatic switches, and stabilizers, were installed to avoid uneven distribution of power.

Four powerful water heating devices were installed in the pathological pregnancy room, admission room, shower rooms, and neonatological intensive care room. Pipes were upgraded to new plastic ones, and filters were installed on each heating device. Four air conditioners were installed in the neonatological intensive care room, emergency delivery room, operating room and emergency care room. After all renovations were completed, vital spaces in the Nukus City Perinatal Center have had uninterrupted electrical power, comfortable temperatures for conducting surgery and avoiding additional stress for emergency patients, and warm water required for many procedures during surgery and delivery.

KUNGRAD PERINATAL CENTER

As with the Nukus City Perinatal Center, the assessment of the Kungrad Perinatal Center's infrastructure concluded that there had been insufficient electrical cabling and lights, and a need for hot water and air-conditioning in the most vital rooms of the center, such as the delivery rooms, operating rooms, intensive care rooms, and others. As a result of the renovations, electrical cabling was improved in 14 rooms, including in intensive care, newborn intensive care, operating rooms and delivery rooms. All existing electrical cables were checked for their functionality, while four water heating devices were installed in the operating block, intensive care unit and delivery rooms.

The capacity of four water heating devices is enough to cover the entire hot water needs for delivery and operating rooms, and intensive care rooms for pregnant women. Water heating devices have been connected with plastic pipes to the heating system to ensure stable pressure and temperature, and a filter has been installed to prevent circulation

Photo 2: Neonatal ward at the Kungrad Perinatal Center

blockages. Considering that often water is cut off at the perinatal center, a 1,000 kilogram water tank was installed to keep a sufficient water stock. Seven air conditioners were installed in operating and delivery rooms, intensive care and pre-delivery rooms, to keep the temperature at a comfortable level during delivery and surgery.

BERUNIY PERINATAL CENTER

This perinatal center is located far from Nukus and serves not only the Beruniy district but also neighboring districts, making it an inter-district service point. Considering the number of deliveries and surgeries the center performs, the renovation was a vital measure to improve and sustain quality of services. After assessment by the construction engineer, all electrical cabling was upgraded to a more powerful condition. Additional LED lamps were installed in all rooms and corridors and connected to the generator, which was procured and installed at the center to ensure uninterrupted electricity supply throughout the day. To ensure that all cables are appropriately connected, and that no high voltage damage has occurred, a new electrical box was installed along with a stabilizer, switches and emergency automatic voltage regulator.

Four water heating devices have been installed to provide hot water to delivery and operating rooms. The capacity of water heating devices allows the provision of hot water to patients' rooms to support mothers and children's joint stay through the post-partum period. Pipes were upgraded to ensure a stable water supply, while filters were installed

to clean water before heating and delivery to the rooms. To ensure the required water pressure, two water pumps were installed.

Indicator 1.2. Number of medical institutions supplied with modern equipment.

As per the list and specifications of equipment agreed to with the Ministry of Health, UNICEF and UNFPA have completed procurement of required items from certified suppliers, to ensure high-quality equipment with sufficient warranty periods. More than 70 percent of the equipment has arrived in the country and has gone through customs clearance processes. A total of 15 pieces of equipment have been delivered to the targeted perinatal facilities, while 27 other pieces of equipment are at different stages of procurement and are set to be delivered and installed by the end of March 2021. Such a delay in procurement has occurred due to the high workload and prioritizing of COVID-19 supplies by UNFPA and UNICEF Supply Departments. The list of equipment and instruments was sent to local partners for appropriate planning and use.

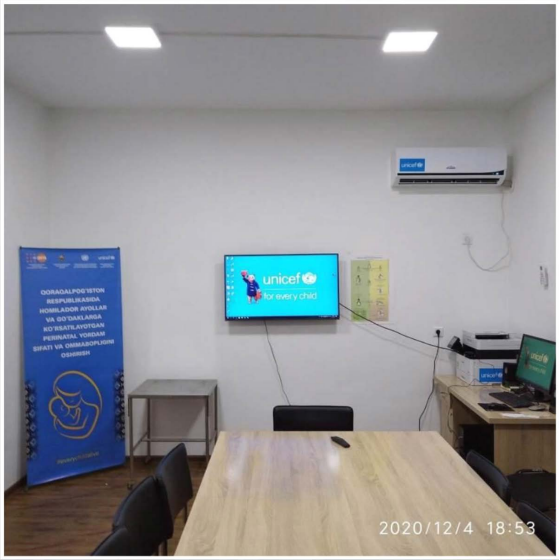

Photo 3: Training rooms at the Kungrad and Regional perinatal centers equipped with video-conferencing equipment

The JP Output 2. Healthcare providers at second level perinatal care facilities have increased capacity to provide quality of care, counselling and support to pregnant women and newborns.

This A sustainable and progressive realization of women's and children's rights, and a reduction in equity gaps, are attainable through changes at the system level. This will translate into effectively-addressing priority bottlenecks, allowing the provision of evidence-based and high-impact interventions that ensure mother and child survival and development. UNICEF and UNFPA have been working to introduce highly effective life-saving technologies for mother and newborn healthcare, to improve the quality of health

Photo 4: Before and after renovation of the training room at the Regional Perinatal Center

services and reduce morbidity and mortality rates. Under this output, the programme has focused on addressing the bottlenecks that reduce quality of care, specifically related to basic emergency obstetric and newborn care, and comprehensive obstetric care in three targeted (second-level) hospitals, and additionally through capacity building of healthcare providers (first-level) in geographically adjacent five districts.

The following six indicators provide a measure of progress for this output:

Indicator 2.1. Number of healthcare professionals trained.

During the reporting period, UNICEF and UNFPA employed a combination of online and face-to-face trainings for better cost-efficiency, safety and transfer of hands-on skills. More than 530 medical professionals (350 planned for the reporting period) have

improved their knowledge in basic emergency obstetric care, newborn care, supportive supervision, and resuscitation. In particular:

- 150 neonatologists have improved their knowledge and skills in evidence-based modern newborn practices developed by the American Academy of Pediatrics.
- 40 healthcare providers have gained new knowledge on Perinatal Audit.
- 175 midwives and obstetrician-gynecologists have improved their knowledge and skills in delivering high-quality Emergency Obstetric Care (EmOC).
- A total of 30 health professionals (including 23 anesthesiologists-resuscitation doctors and 7 gynecologists) strengthened their knowledge and skills in EmOC and resuscitation.

A total of 70 healthcare providers and health managers from target facilities were engaged in five-day experience exchange and learning visits to leading national and subnational perinatal facilities in the country (in Tashkent and Fergana) to learn up-to-date, evidence-based maternal and newborn survival practices in the field.

Indicator 2.2. Number of supportive supervision visits.

Thirty-eight specialists have improved their knowledge on how to conduct supportive supervision. The national experts have developed guidelines on supportive supervision with the assistance of UNFPA and UNICEF.

Photo 5: Baby handling instruction at the Nukus City Perinatal Center

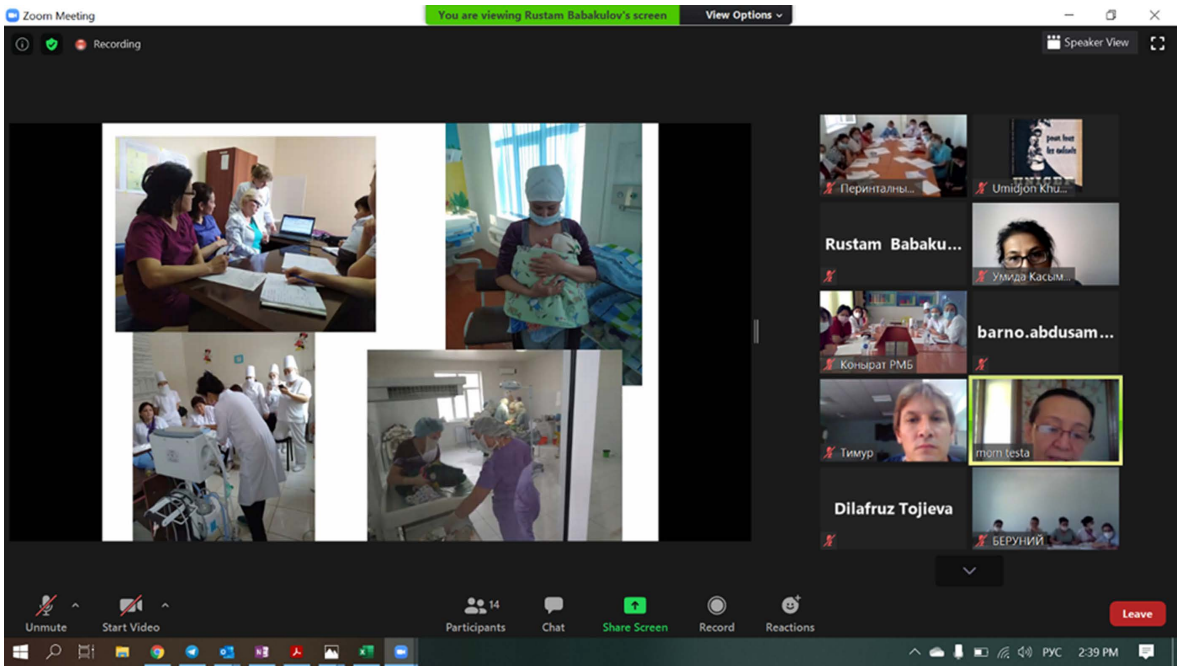

Photo 6: Training on supportive supervision over Zoom

Four teams comprised of leading neonatologists have been allocated to each target facility which they have visited and monitored online. During each visit, teams scored each facility's performance based on checklists, with feedback and corrective actions having been implemented. Support supervision has focused on maternal health services, newborn care services, human resources, laboratory services, information availability, education and communication materials, and infrastructure. There were noticeable improvements in the support supervision style and adherence to clinical standards and guidelines. Relevant qualitative and quantitative indicators will be measured during the end-line assessment.

Three teams consisting of three specialists went to the Republic of Karakalpakstan to conduct supportive supervision visits to eight perinatal centers. Through six days of work at these centers, they ran on-job training for trained local specialists from the three perinatal centers and, after, together with local specialists, they conducted supportive supervision at the remaining centers.

Indicator 2.3. Percentage of perinatal deaths audited.

A perinatal death audit is the process of assessing factors related to perinatal death. It helps in reducing perinatal mortality by identifying preventable factors related to perinatal deaths. UNICEF hired a national consultant on perinatal audit and, jointly with MOH, completed a series of trainings in 2020. WHO recommended manual and training module on perinatal audit, drawing on best international practices, were printed and distributed. In Karakalpakstan, 40 healthcare workers were trained on how to conduct perinatal death audits and rectify situations based on findings on a regular basis. Regular perinatal

audits can identify factors and lapses related to perinatal deaths and assist with the implementation of appropriate interventions to reduce avoidable perinatal deaths.

A total of 50 percent (20 out of 40 cases) of all deaths on average were audited in the target facilities during the reporting period: 34.2 percent were macerated stillbirths, 31.7 percent were fresh stillbirths, and 34.2 percent were early neonatal deaths. Avoidable factors included poor neonatal resuscitation skills, incorrect use of partographs, and delay in performing caesarean sections. Activities implemented included three skills sessions of neonatal resuscitation, the introduction of Continuous Positive Airway Pressure (CPAP) for babies with respiratory distress, and updates on the use of partographs.

Indicator 2.4. Percentage of maternal complications reviewed.

UNFPA hired two national consultants on maternal complication review, and they have started preparatory work to commence hands-on training for healthcare workers. Near-miss Case Review (NMCR) was introduced at four perinatal facilities of the Republic of Karakalpakstan and at the Nukus Medical Institute. In total, 60 healthcare specialists have improved their skills in this area. It was reported that on average, 20 percent (59 out of 300 cases) of all near-miss cases that occurred during the reporting period in the target facilities were reviewed. The analysis concluded that hemorrhage and hypertensive disorders were the leading causes of maternal near misses. Under guidance from national experts, local staff defined appropriate actions to be taken to prevent future occurrences and serious complications.

Indicator 2.5. Number of quality improvement plans implemented.

UNICEF recruited an experienced international consultant from Ukraine to provide expert advice on quality improvement. The international expert organized a series of online training for healthcare managers and providers, to help each target facility develop and implement a quality improvement plan in 2020.

Trainings on quality improvement of perinatal health services were conducted in Tashkent and Nukus in March 2020 for more than 40 healthcare workers. Under the guidance of an international consultant, two national medical clinics (the Tashkent Medical Academy and the Institute of Obstetrics and Gynecology), the three target facilities (Kungrad, Beruniy and Nukus City), and the Regional Perinatal Center in Nukus, developed and implemented their own quality improvement plans. In Karakalpakstan, two facilities reached the target of 100 percent of post-partum women covered by standard obstetric monitoring in the early post-partum period to prevent near-miss and maternal death cases, and two facilities increased the early initiation of breastfeeding within one hour among babies born by caesarean section not getting into the ICU, from 10 percent to 60-70 percent.

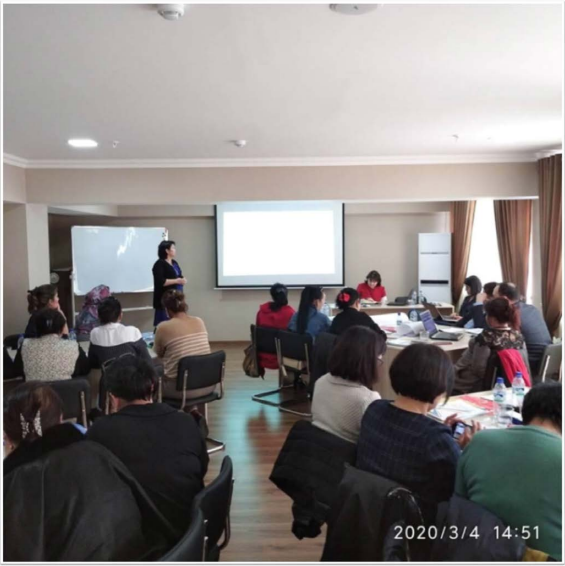

Photo 7: Quality improvement trainings in Tashkent and Nukus

Indicator 2.6. Health Management Information System (HMIS) for perinatal service developed and introduced in 3 level II maternity hospitals.

The project implementation has been approved as a model in the Presidential Decree #4513 issued on 08.11.2019. The particular activity related to improving the electronic data exchange programme between the healthcare system and the civil registry office on birth and death is included in this PD. Under Output 2, 'Healthcare providers at second level perinatal care facilities have increased capacity to provide quality of care, counselling and support to pregnant women and newborns', the project planned to develop, strengthen and sustain mechanisms for accountability for quality of care (activity 2.17). To address shortcomings in data collection, UNICEF met with the Ministry of Health of Uzbekistan and proposed technical support to improve data collection and analysis. To ensure the sustainability of improved data collection, we agreed with the MOH to develop birth and death registration software for nationwide use. The Centre for the Development of Information and Communication Technologies (ITMed) under the MOH has been finalizing software development.

On 10.11.2020, the Cabinet of Ministers issued resolution #704 on 'Approval of administrative regulations for providing integrated public services for registration of births'. According to this resolution, birth and death registration software should be piloted in Nukus and Tashkent City from 01.02.2021.

Delays in implementation, challenges, lessons learned & best practices

Delay in renovations was caused by the strict lockdown introduced in all regions of Uzbekistan in March 2020 due to COVID-19 pandemic, which continued until June. Right after the lockdown release, renovations began in all three locations.

Although the list and specifications for equipment were developed in 2019 and orders were placed at the beginning of 2020, the prioritization and focusing of the Supply Departments of UNFPA and UNICEF on COVID-19 procurement resulted in a significant delay in responding to regular programmes. Due to strict lockdown in the first half of 2020, the training component was postponed. Because the COVID-19 situation negatively impacted the overall implementation of project activities, it was decided to procure and install equipment for online training, which moved capacity building components forward regardless of restrictions related to COVID-19. Physical visits, such as supportive supervision which cannot be carried out online, were postponed to 2021 and completed by the end of March 2021.

Soaring global demand for critical resuscitation equipment has led to shortages, cost-prohibitive prices, and prolonged lead times for many medical items.

Actions conducted to mitigate challenges:

- Online training modalities were coupled with face-to-face training for trainings where hands-on practical skills are essential. Most of the trainings with practical parts were moved to the end of 2020 when the lockdown was lifted, and when public meetings with fewer than 15 participants were permitted with safety measures observed.
- UNFPA jointly with UNICEF provided the necessary equipment for several capacity-building activities which were switched to distance learning mode. Additionally, web-conferencing equipment was procured for the Maternal and Child Health (MCH) department of the MOH of Uzbekistan and Karakalpakstan, to coordinate the new type of arrangements for capacity building.
- The project team strictly adhered to safety measures such as social distancing and sanitation during all face-to-face events and procurement.
- Delayed procurement was expedited in the fall of 2020 to meet project deadlines.

Lessons learned

This project has demonstrated good collaboration between UNICEF and UNFPA, which has resulted in the timely and quality implementation of activities. Good synergy has resulted in the appropriate planning of training activities, avoiding overlapping and duplicating activities, and additional contributions were made by each agency to the capacity-building process of partners.

Due to the COVID-19 pandemic, shipping lead time increased tremendously due to prioritizing more urgent needs, which is an exceptional case experienced during the

pandemic. There should be risk added as well as proposed mitigation action (s) to the programme which would address such a situation in the future.

The cost of some activities had been changed significantly due to changed procurement modality and increased transport costs, resulting from COVID-19 restrictions of movement between countries and within the country. The changes were presented and discussed with the Coordination Council and stipulated in the updated agreement. For the other risks, the programme team worked based on the Risk Ranking Matrix, and implemented risk mitigation strategy activities as planned.

Qualitative assessment

UNICEF, jointly with UNFPA, supported the improvement of perinatal care services in the ROK. There are three perinatal care facilities responsive in addressing health security issues. As highlighted in the previous sections, the level of perinatal care services, in terms of accessibility, availability and better quality of services, is in the process of being improved in the eight districts covered in the reporting period. Healthcare workers' capacity has been improved through hands-on training on newborn survival practices, the foundation of which has been made more sustainable through collaboration with a local medical institute. This success has been possible through a close partnership with district authorities, the MOH of the ROK, and the MOH of the Republic of Uzbekistan, with overall guidance from Coordination Council members.

ii) Indicator based performance assessment

	Achieved indicator targets	Reasons for variance from planned target (if any)	Source of verification
Outcome 1: By 2020, mothers and newborns in the ROK, especially the most vulnerable, have received quality perinatal health service.			
Indicator: Proportion of survival of low-birth-weight newborns (1,000-2,499 gr.) in targeted facilities. *Baseline: 76 percent. Planned target: 80 percent*	80 percent	This figure was drawn based on analysis of the BABIES matrix from all three facilities.	MOH data (BABIES matrix)
Indicator: Percentage of mothers satisfied with perinatal health services in selected facilities. *Baseline: 66.4 percent. Planned: 80 percent*	80 percent	Exit interviews of mothers have shown that there was increase of overall satisfaction with the service in comparison with baseline.	Exit interviews
Output 1. Secondary level perinatal care facilities have improved infrastructure and are equipped with modern equipment to ensure access by the population to evidence-based and equity-perinatal health services.			
Indicator 1.1. Number of medical institutions with improved infrastructure. *Baseline: 0. Planned target: At least 2*	3	The project team managed to improve infrastructure at all three target facilities.	Quarterly, based on project document
Indicator 1.2. Number of medical institutions equipped with modern equipment. *Baseline: 0 Planned target: 0*	3	15 out of 42 procurement items have been delivered to the target facilities.	Quarterly, based on project document
Output 2. Healthcare providers at second level perinatal care facilities have increased capacity to provide quality of care, counselling and support to pregnant women and newborns.			
Indicator 2.1. Number of healthcare professionals trained. *Baseline: 0 Planned target: 350*	538	Employing distance learning modality allowed for the more efficient use of resources and the training of more people.	Project report

	Achieved indicator targets	Reasons for variance from planned target (if any)	Source of verification
Indicator 2.2. Number of supportive supervision visits. Baseline: 0 Planned target: 7	4	Travel restrictions due to COVID-19 delayed the conducting of all visits as planned, while the remaining visits will be completed in 2021.	Project report
Indicator 2.3. Percentage of perinatal deaths audited. *Baseline: 0 Planned target: 20 percent*	50 percent	Local staff undertook a retrospective review of deaths after the training and managed to review 20 out of 40 occurrences in 2020.	Project report, final assessment report
Indicator 2.4. Percentage of maternal complications reviewed. *Baseline: 0 Planned target: 20 percent*	20 percent	It was reported that on average, 20 percent (59 out of 300 cases) of all near-miss cases that occurred during the reporting period in the target facilities were reviewed.	Monitoring reports, final assessment report
Indicator 2.5. Number of quality improvement plans implemented. *Baseline: 0 Planned target: At least 1* *Target for 2020: At least 1*	6	In addition to the three target facilities, the Regional Perinatal Center of Karakalpakstan, the Perinatal Center of the Tashkent Medical Academy, and the Institute of Obstetrics and Gynecology have all implemented their own quality improvement plans.	Monitoring reports, final assessment report
Indicator 2.6. HMIS for perinatal service developed and introduced in 3 level II maternity hospitals. *Baseline: 0 Planned target: At least 1* *Target for 2020: At least 1*	0	HMIS is being piloted in Tashkent City's perinatal centers. The system will be rolled to Karakalpakstan in May 2021.	Monitoring reports, final assessment report

iii) Human interest story: Gulnara's life

Gulnara was born on 2 December 2020 after only 30 weeks of gestation. She weighed just 1,000 grams. After two months in an incubator at the Neonatal Intensive Care ward of the Nukus City Perinatal Center, she now weighs 2.450 kilograms.

Gulnara's mother was admitted with a history of miscarriage. She suffered from multiple health conditions, including jaundice, arterial hypertension and intoxication, which led to premature labor. The head of the department, Dr. Kahramon Kabulov, who performed an emergency caesarean section to assist with Gulnara's birth, explained that Gulnara would have had slim chances for survival just a few years before. Thanks to the up-to-date, evidence-based advanced newborn care resuscitation protocols developed by the American Academy of Pediatrics, and recommended by WHO and UNICEF, and the latest equipment and upgraded infrastructure, maternity staff can now save Gulnara and the other babies who are born preterm.

"We fight every day to help babies survive, even the ones weighing 1,000 grams," said Dr. Jeyran Sherieva, the neonatologist doctor trained during the recent 'Helping Babies Breathe' training held by UNICEF, who oversaw Gulnara's care. *"Before, babies weighing less than 1.1 kilograms had minimal chances to survive. We thought they were too small to have a chance at survival. We didn't have the equipment, skills, or knowledge we needed."*

Photo 8. Baby Gulnara in an incubator at the Nukus Perinatal Center

Photo 9: Gulnara's mother

Photo 10: Dr. Jeyran Sherieva, neonatologist attending to Gulnara

In 2019, within the framework of the 'Improving Quality of Perinatal Care Service to Most Vulnerable Mothers and Newborns' Programme, UNICEF and UNFPA have assisted three perinatal facilities in Karakalpakstan (in Nukus City, Kungrad and Beruniy) to enhance the capacity of neonatologists, obstetricians, and resuscitation specialists to strengthen staff capacities, through comprehensive training and support. UNICEF and UNFPA have also equipped the perinatal center's new Neonatal Intensive Care Unit with the latest medical equipment (ventilators, oxygenators, laryngoscopes and others) and training equipment. Today all premature babies that come through the perinatal center have a real chance of survival.

"The new equipment and technologies help more children survive and prevent complications through their proper application," said Dr. Kabulov. "Leading national experts have helped us utilize the new equipment and practices to the greatest level. I am so happy with our accomplishments."

At the Neonatal Intensive Care Unit, little Gulnara is getting better every day. She can now see lights and hear sounds, and uses her own strength to drink her mother's breastmilk. Once she reaches 2.5 kilograms, she will be released to go home. Her parents have been trained on how best to care for her and are looking forward to her arrival at home. They say everything is ready for her, and that she will know nothing but love. It is expected that once the target perinatal centers receive in 2021 the status of second level referral facilities, they will extend their specialized service to mothers and newborns from the neighboring districts as well.

III. OTHER ASSESSMENTS OR EVALUATIONS

As part of the baseline assessment, UNFPA conducted an assessment of mothers' satisfaction with perinatal services by using exit interviews of mothers over the first quarter of 2020. Accordingly, 35 women who were in perinatal centers at the time of assessment, and who had delivery no later than four days before, participated in the assessment.

Questionnaire consisted of two parts: A) assessment of infrastructure and organization of services; B) quality of medical services rendered to them (Annex 2). The evaluations were conducted in a separate room, confidentiality was guaranteed, and staff working at the facilities were prevented from interrupting the discussions.

The summarized results are as follow:

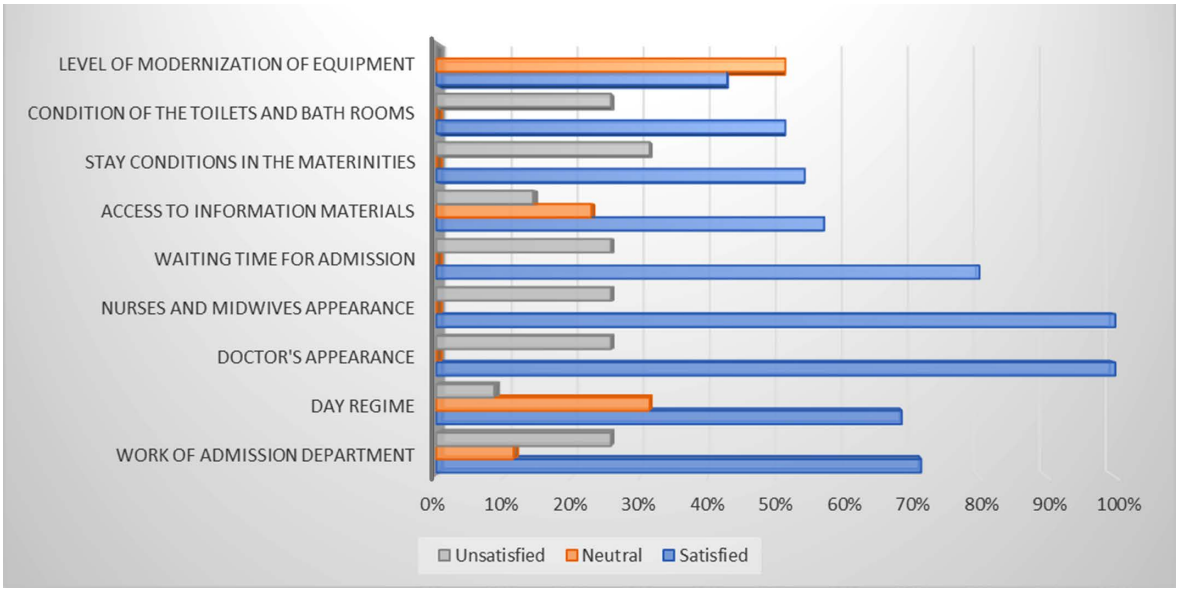

Figure 1: Level of satisfaction of staying conditions and infrastructures in all three maternities

During interviews, most of the women were satisfied with the work of the admission department and the medical staff's appearance. Approximately 50% of interviewed women were satisfied with access to sanitary-hygiene rooms' access to information materials and conditions. However, the level of satisfaction with the sanitary-hygiene rooms' condition differs between three maternities, with the best score for Nukus perinatal center and the worst one for Beruniy maternity house. The lowest level of satisfaction in all three maternities was for modernization of the equipment.

While assessing the patients' satisfaction quality of medical services, it was noticed that not all components were positively marked up by the interviewees. For example, timeliness of examination and treatment was around 60% only. Although, more than 80% of women admitted good quality of medical check, knowledge of medical staff and their attitude less than 40% received clear instructions from medical professionals on treatment and care after discharge. There is no big difference in results collected from all three maternities.

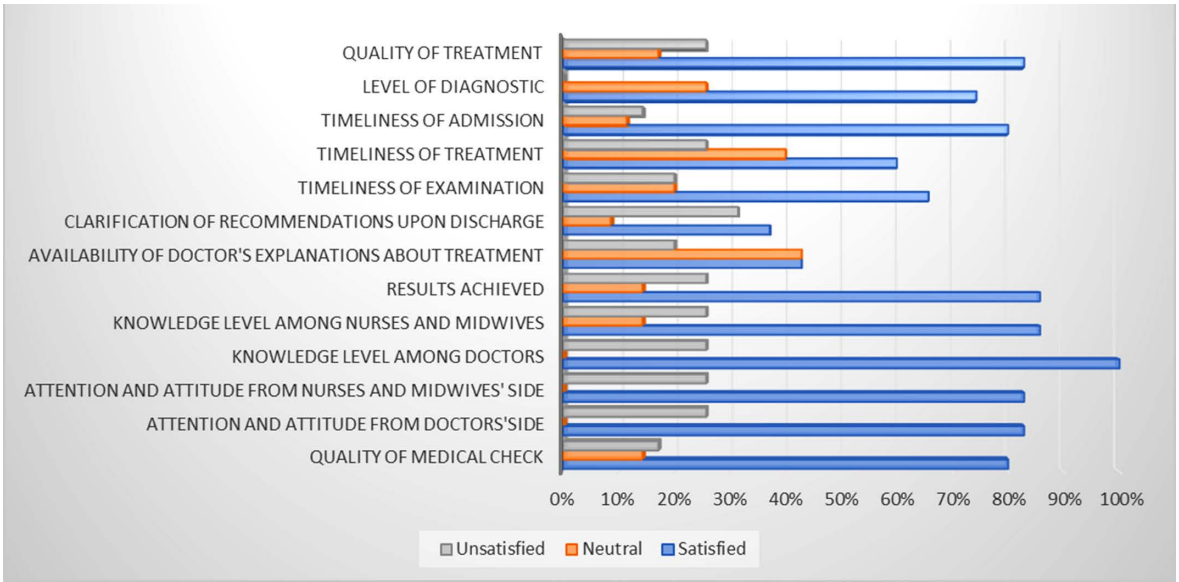

Figure 2: Level of satisfaction with medical service and medical staff attitude

Results of this assessment were used for formulating the activities, list of equipment needed and training required for the medical staff working in three selected maternities.

IV. PROGRAMMATIC REVISIONS

In 2020, the implementing partners requested a four-month non-cost extension of the programme due to the COVID-19 pandemic. The pandemic in 2020, and the subsequent quarantine measures adopted to mitigate its impacts both within Uzbekistan and worldwide, greatly impacted all aspects of socio-economic life. There were almost three to four months of strict lockdown which barred trainings, all sorts of public engagements, non-essential travel, and other activities. All of this prevented the programme from undertaking critical activities and deploying necessary resources in a complementary manner. To circumvent this problem, UNICEF and UNFPA laid out plans for how to handle the training component amid the continuing health and safety measures, by introducing distance learning for in-service training.

The pandemic also severely impacted global health product supply chains, affecting essential materials and ingredients, finished health products, logistics, shipping, and much more. The unprecedented surging demand for resuscitation and sterilization equipment forced many global manufacturers to re-purpose their production capacity towards manufacturing the equipment in demand, thereby creating a gap in the supply of other medical goods.

The proposed amendments to the programme document were aimed to enable implementing partners to address these challenges effectively:

- Four month extension until April 30, 2021;
- Some budget adjustments to reflect changes in terms, costs and operational modalities.

The amounts to be deferred in UNICEF's budget mainly cover procurement and installation of equipment, training on how to operate the equipment, four months of staff costs, and monitoring visits. For UNFPA, the amount has covered procurement and installation of equipment, a few follow-up capacity building visits, some monitoring visits, and four months of staff costs.

In this evolving context, the non-cost extension proposal has been formulated to support and reinforce the effective fulfillment of mothers' and newborns' rights to quality perinatal services.

Annex 1. List of equipment

#	Name	q-ty
1	Surgery operating table	3
2	Surgical lights, portable	2
3	Surgical lights, ceiling operating	4
4	Critical care adult ventilator	2
5	Tabletop pulse oximeter for use in neonates and adults	16
6	Infusion pump	12
7	Capnograph	3
8	Oxygen concentrator	3
9	Obstetric, surgical kit	3
10	Ultrasound scanner with doppler	3
11	Electrocoagulation equipment, portable surgical	3
12	Pump, suction, surgical	6
13	Glucometer	6
14	Bed for labor delivery	12
15	Medical furniture	72
16	ECG machine	2
17	Anesthesia machine	1
18	Medical console	
19	Artificial lung ventilation device (IVL) for newborns	1
20	Newborn ventilator circuit	4
21	Humidifier chamber autoclavable (reusable) for ventilation	2
22	Antibacterial filters for ventilation	20
23	Oxygen supply hose with 90-degree connector for ventilation	4
24	Incubator for newborns	8

#	Name	q-ty
25	Resuscitation table for newborns	6
26	UPS / Voltage stabilizer	6
27	Skin temperature sensor	6
28	Portable patient monitor	14
29	Disposable Monitor Electrodes	240
30	Fetal monitor	17
31	Printing paper rolls	17
32	Ultrasound gel	68
33	Bilirubinometer	6
34	Autoclave 85 l	1
35	Phototherapy unit	7
36	Non-invasive ventilation device for newborns	4
37	Nasal cannula for newborns	40
38	Children's cap for CPAP	120
39	Infant t-piece resuscitator	6
40	Resuscitator, hand-operated adult set (Delivered)	18
41	Device for artificial ventilation of the lungs, neonatal (Delivered)	44
42	Laryngoscope, neonatal (Delivered)	6
43	Laryngoscope, adult (Delivered)	6
44	Vacuum extractor (Delivered)	3
45	Fetal heart monitor (Delivered)	20
46	Educational simulators (Mama Natalie) (Delivered)	690

Annex 2. UNFPA questionnaire for patient satisfaction assessment

A. Organizational criteria	Satisfied	Difficult to identify	Unsatisfied
- Operation of the admissions department			
- Following of the day regime by the facility			
- Doctor's appearance			
- The appearance of midwives and nurses			
- Waiting times for hospitalization			
- Availability of information materials			
- Conditions (domestic) for hospital stays			
- Sanitary rooms			
- Modern equipment			
B. Medical criteria			
- Full medical examination			
- Care and attention from doctors			
- Care and attention from midwives and nurses			
- Doctors' level of knowledge			
- Level of knowledge of midwives and nurses			
- Achieving expected results from treatment			
- Availability of doctor's explanations about treatment			
- Clarity of recommendations when dismissing			
- Timely examination			
- Timely treatment			
- Timely hospitalization			
- Diagnosis level			
- Level of treatment			


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