

Project HOPE

**Healthy Lifestyles for Women and Children Program in
Jalalabat Oblast, Kyrgyzstan**

BASELINE ASSESSMENTS

**Bazar-Korgon and Aksy Rayons
Jalalabat Oblast
Kyrgyzstan**

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**Lusine Mirzoyan MD MPH
Suluke Abakirova
Aynagul Kasymbaeva MD
Dinara Boronbaeva MD
Japar Palvanov MD
Gulzat Nurumbetova MD**

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Authors would like to congratulate KPC and HFA data collectors:

KPC SURVEY

Datka Rasulova
Bubaisha Mamadalieva
Uson Ibraimov
Nurzot Babaev
Nuriila Amanbaeva
Yanvarbek Baizov
Ainura Davletova
Jusup uulu Bolot
Kanyshai Bagysheva
Nurlan Toroev
Farida Sharipova
Nazira Sadykova

HEALTH FACILITY ASSESSMENT

Jyldyz Bukenova
Nazira Navatova
Umsunai Junusova
Tashbu Sadyrova
Beknazar Jusupbaev
Janara Muratova

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LIST OF ACRONYMS

ARI	Acute Respiratory Illness
BASICS	Basic Support for Institutionalizing Child Survival
BP	Blood Pressure
CH	Child Health
CORE	Child Survival Collaborations and Resources Group
CS	Child Survival
CSM	Center of Family Medicine
DHS	Demographic and Health Survey
DISH	Delivery of Improved Services for Health
FAP	Feldshars and Midwife Point
GSV	Groups of Family Physicians
HFA	Health Facility Assessment
HIS	Health Information System
HIV/AIDS	Human Immune Deficiency Virus/Acquired Immune Deficiency Syndrome
HOPE	People-To-People Health Foundation
IHFA	Integrated Health Facility Assessment
IMCI	Integrated Management of Childhood Illnesses
KPC	Knowledge, Practices and Coverage
LAM	Lactational Amenorrhea Method
MCH	Maternal and Child Health
MOH	Ministry of Health
NGO	Non-governmental Organization
M&E	Monitoring and Evaluation
PVO	Private Voluntary Organization
RH	Reproductive Health
SM	Safe Motherhood
SMNA	Safe Motherhood Needs Assessment
STI	Sexually Transmitted Infection
SUB	Rural Area Hospital
SVA	Rural Doctoral Ambulatory
TB	Area Hospital
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

EXECUTIVE SUMMARY

Project HOPE (People-To-People Health Foundation) began implementing the Child Survival and Reproductive Health program in Aksy and Bazar-Korgon rayons of Jalalabat Oblast, Kyrgyzstan in October 1, 2002. This USAID-funded program aims at reducing childhood mortality and morbidity and improving the reproductive health of the population of the Jalalabat Oblast. The overall approach is to strengthen and improve the quality of existing health care delivery systems and to increase the community and consumer involvement and participation in health care maintenance decisions affecting them directly.

In order to assess the initial CS/SM/RH related knowledge, attitudes and practices of the targeted population as well as the quality of the health services, the baseline evaluation of the program was conducted. It included the Knowledge, Practices and Coverage (KPC) Survey and Health Facility Assessment (HFA). The targeted groups were men, women of reproductive age, youth and mothers of children under 2 years. The assessments took place in March 2003. During the baseline activities, Project HOPE collaborated with the Ministry of Health. In particular, the teams of data collectors were compiled of individuals from different partner organizations: Jalalabat Oblast Hospital, Training Center of Family Medicine, Medical Department of Jalalabat State University, and Center of Human Reproduction.

Data was entered and analyzed using EpiInfo statistical package.

The main results are summarized below:

- Targeted population show lack of knowledge related to:
 - Danger signs in newborns and children under 5 indicating the need to seek health care;
 - Warning signs of pregnancy, delivery and postpartum period;
 - Child spacing methods and mode of their usage;
 - Sexually Transmitted Infections and ways of their prevention.
- Mothers of children under 2 have poor knowledge and skills related to:
 - Sick child home care;
 - Diseases that can be prevented by means of vaccination;
 - Appropriate diet for children
- Health care facilities lack basic equipment and supply necessary for effective RH/MCH services provision.
- Health care providers rarely demonstrate satisfactory knowledge and skills of sick children management and rarely provide quality antenatal, delivery and postpartum services. Counseling and communication skills of the health personnel are particularly weak.
- Home deliveries are not a problem in the project rayons.
- Global stunting among children under 2 constitutes 17%, of which 4% are severely stunted.
- None of the children under 2 suffer from severe wasting and only 1% suffer from global acute malnutrition.
- Targeted populations rarely receive health information in health care facilities. Mass media is the main source for channeling health information to the population.

The summarized recommendations to the Project HOPE and partner organizations are following:

- Conduct educational campaigns in targeted communities (through mass media, health care workers outreach visits, village activists, and social workers) and health care facilities (health care providers counseling, posters, and brochures).
- Improve communication and counseling skills of health care providers by means of trainings on counseling and health information delivery.
- Train health care workers' clinical knowledge and skills in IMCI, SM, BF and RH.
- Improve infant feeding practices in target areas.
- Provide health care facilities of project area with basic equipment and supplies.

METHODOLOGY

Objectives

The Baseline Assessment had the following objectives:

- Study the current MCH\RH knowledge and practices of the targeted population in the project catchments area.
- Identify gaps and problems in the delivery of MCH\RH health services.
- Assess the needs of health facilities in the project catchments area.
- Build consensus between stakeholders and partners.
- Introduce the goal of the project to the health care providers and population of the targeted area.
- Built capacity in local staff to carry out E&M activities.

Surveyed populations

- Mothers of children under 2 years-old
- Women of 15-49 years old
- Men of 15-49 years old
- Adolescents 14-16 years old

Key indicators

The list of the key indicators and correspondent targets is attached (Appendix 1).

Selection of the locations

A 30-cluster sampling method was used. 30 clusters were selected from each oblast using random proportionate sampling. A village was used as a cluster. As a result of proportionate sampling 16 villages in Aksy and 14 villages in Bazar Korgon rayons were selected.

Households selection

A spin-the-bottle technique was used in order to select a starting point within each sampled village. In the center of each cluster the bottle was spun in order to determine the direction. The team of interviewers of four with one type of questionnaire each worked in one cluster during the day. They moved in two opposite directions: those with female questionnaires moved in pairs with interviewers doing male ones and those interviewing mothers moved with teenagers' surveyors. One group moved where the bottleneck indicated and another one followed where bottle bottom pointed.

In order to reduce the design effect, every third house was chosen. The first household was randomly selected among the first three houses on the direction indicated by the bottle.

Respondents selection

In order to select respondents within a household the interviewers used a random number table. They asked about composition of the household and randomly selected among those satisfied with the interviewing criteria.

Data collection supervision

Each team of four working in one cluster had a supervisor. At the beginning of each day a supervisor met with a chief of the village, explained the purpose of the visit and asked for permission to conduct the survey. Upon arrival to the center of the village supervisors determined the direction and selected the starting households for each group. During the day the supervisors visited interviewers, checked the quality of their work, solved organizational problems, and helped with the sampling in difficult cases (when there was impassable obstacle or no more houses on the direction selected). At the end of each day the supervisors checked the questionnaires, and corrected mistakes.

Health Facility Assessments

Fourteen (14) facilities were assessed. Two of them were in Jalalabat city, and 6 in each rayon. The surveyors randomly selected two Area Hospitals, 1 Rural Hospital, 2 Family Groups and 2 FAPs in each rayon.

Trainings

Fifteen persons were trained as interviewers for KPC (4 days training). Project HOPE staff were co-facilitators. Three teams of 5 people were created; each team had 4 interviewers and 1 supervisor. During the training participants were provided with an overview of the program, the KPC as an assessment tool, the instruments and sampling method. Situational tasks and assignments in the form of games and role plays allowed for better understanding of the sampling and interviewing techniques.

For the HFA, eight people were trained and two teams of four people were created, one of them was selected as supervisor. The training lasted two days. Twenty instruments were used. The overwhelming majority of KPC interviewers and HFA surveyors came from medical backgrounds.

PROCESS AND PARTNERSHIP BUILDING

The partnership was created and strengthened during pre-implementation, implementation and post-implementation phase.

Among the local partners/stakeholders participated in the KPC survey were the following:

- Jalalabat Joint Oblast Hospital/Oblast MOH department, represented by Chief Pediatrician of the oblast.
- Jalalabat Affiliate of Kyrgyz State Institute for Postgraduate Education of Health Care Providers (another name is Oblast Training Center of Family Medicine). Two trainers represented the institute.
- Medical Department of Jalalabat State University (lecturers and students).
- Oblast Center of Human Reproduction (a Deputy Chief, an adolescent OB/GYN, and a geneticist).
- Oblast and rayon health and administrative authorities (Chief of outpatient and diagnostic department of Aksy Territorial Hospital, pediatricians and OB/GYNs from Bazar-korgon and Aksy Territorial Hospitals, as well as family physicians from FGD)
- The NGO “Family and Healthy generation”
(See Appendix).

The list of HFA surveyors include the following key persons:

- Oblast Family Medicine Center represented by the Chief of Pulmonology Department
- Oblast Training Center of Family Medicine represented by two trainers
- Suzak Maternity House represented by working OB/GYN
- Jalalabat State University, Medical department represented by lecturers etc (See Appendix)

Specific roles of local partners/stakeholders in the KPC survey and HFA

Having key stakeholders and partners present during the training was very useful. Being from the project targeted areas, they provided useful advice about the surveyed area and the structure of the villages. They gave information about approximate proportion of the Russian and Uzbek population at the pilot rayons and helped with the wording of the questions, when translating to Uzbek or Kyrgyz. As the majority of data collectors were health care providers and health facility managers from project target sites, objectivity of the data was observed by sending data collectors from Aksy to Basar-Korgon and visa versa, the Basar-Korgon team was sent to Aksy. The team working in Aksy stayed there for 8 days (since this rayon is about 5 hours from Jalalabat).

During the pre-implementation phase of the project an official letter from the oblast state administration (signed by governor) was obtained. In this letter the importance of KPC/HFA was stressed, and the local administration was asked to support baseline activities. During survey implementation, all of the local administrators were willing to help. They provided a map of the village or drew it for the interviewers and often suggested a guide.

In the post-implementation phase, the DIP workshop was conducted (by DIP Consultant). The results of the assessments were presented to the partners and stakeholders by Project HOPE staff. The data provided useful information about the situation in project rayons and was utilized to make appropriate decisions on project activities.

Instruments

Questionnaire development process

The first draft of survey questionnaires in Jalalabat was based mostly on the design and content of the questionnaires adapted in for a similar survey implemented in Surkandarya and Kashkadarya Oblasts, Uzbekistan for HOPE's MCH/RH project. It was decided that the project would use the cluster sampling methodology and parallel sampling. Thus, four types of questionnaires were developed for each targeted group (See section *Surveyed Populations*). They were translated into Kyrgyz in advance for the Kyrgyz populations, and discussed and pre-tested during the training in order to check if the translation was understandable for population and accurately reflected the meaning of the questions. The pre-test was carried out several times: 1) during the training session when interviewing mothers with children under two to the hospital and some project staff (drivers, watchman etc) who were not familiar with the questionnaire; and 2) during a field-exercise in the nearest to Jalalabat village (Cholok-Terek). Based upon that field-testing experience, some questions were modified and additional changes were made.

Difficulties and Lessons Learned

1. Very low attendance of health care facilities was a challenge for obtaining adequate number of observations or interviews.
2. Bad weather and poor roads were the causes of a sampling methodology deviation in some clusters. This was identified during a quality control procedure. Thus, data collection was redone in three clusters.
3. The measuring boards were heavy and inconvenient to carry.

RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

Description of Health Care Services

According to official data, by the year 2002 the oblast health care team includes 237 physicians from 15 area hospitals (TB), 139 groups of family physicians (GSV), 46 rural ambulatory (SVA) and 161 Feldshar (Doctor's Assistant) and Midwife Point (FAPs). However, at present, due to intensive reform process of changing the SVAs over to GSVs or FAPs, the exact number of health care facilities in the oblast is not available. In the pilot rayons the number of primary health care facilities is following:

Types of Health Care Facilities	Aksy	Bazar Korgon
SUB	6	3
GSV	15	16
FAP	29	17

The Oblast Maternity Hospital is located in the Jalalabat city and serves the population of the city as well as entire oblast. In addition to normal deliveries, most of the severe obstetrical cases in the oblast are referred and managed here. The hospital includes the following departments: admission department, obstetrics, gynecological, and perinatal departments, reanimation and operation areas. The table below shows that the number of population served by oblast maternity is 160,000.

The facilities representing the next level are Area Hospitals (TB). Each of the rayons has one Area Hospital, which includes a maternal department. This department includes antenatal and maternity beds, and operation and birth areas. The hospital is centrally located, and in addition to normal deliveries, all obstetric complications from the rayon are managed here. The amount of population served by Area Hospitals of the pilot rayons is indicated in the table below.

The Rural Hospitals (SUBs) are subordinate to Area Hospitals. Most of them include a few maternity beds. Only normal deliveries are attended here.

The Groups of Family Physicians (GSV) have replaced polyclinics and rural ambulatory clinics, which were the main outpatient facilities during Soviet times. GSVs include family physicians trained recently to perform all outpatient antenatal, gynecological, and pediatric activities that previously were carried out by corresponding specialists. All GSVs in the rayon are subordinate to the Center of Family Physicians (CSM), which performs the administrative functions. Although all rural ambulatory clinics are replaced by GSVs, not all physicians of GSVs in Aksy were trained as family doctors yet. This training consists of 3 phases. Currently, a portion of the Asky physicians has not completed all three phases (See section *Staffing and Training*). In Bazar-Korgon all physicians working in GSV were trained as family physicians.

Lack of proper working conditions, basic equipment and supply in majority of GSVs hinders effective services delivery.

Below is a passage from a surveyor's observations at one of the GSVs:

GSV Y

Source of water – river, they boil it in a bucket without a cover using electrical immersion heater. The pharmacy did not work regularly. At that moment there were not any medicines for IMCI. In the Oral Rehydration Point there were not any chairs, spoons or measuring cups. Providers did not estimate the weight of children in accordance with the growth chart. They did not explain to mothers when to come back, nor did they ask about mother's health or danger signs in her children. In emergency cases, providers tested urine for albumin by nitric acid. No

puncture-proof container was available. The last ANC record was made on 22.03.03. The source of light was a luminescence lamp. Blood was not tested for RW.

Feldshars and Midwife Points (FAPs) are the lowest in the hierarchy of primary health care facilities and include only midlevel personnel. The main activities performed by these facilities are referring, counseling and vaccination.

TABLE. Number of Population Served by Area Hospitals and Subordinate Facilities Selected

Types of Health Facilities	Aksy	Bazar-Korgon	Jalalabat
Oblast Maternity			160,000
Area Hospital - Population served in the rayon	103,702	122,000	
SUB	5,007	14,000	
GSV (I, II)	1,159; 410	6,026; n/a	
FAPs (I, II)	n/a	n/a	

The table above indicates the number of population served by primary health care facilities. Not all of the facilities have this data available.

The number of antenatal and maternity beds is indicated in the table below. The table also provides information on proportions of these beds out of total.

TABLE. Number (Proportion) of Antenatal and Maternity Beds out of Total in Each Health Facility Surveyed

Facility	Antenatal	Maternity	Total
Oblast Maternity	20 (18%)	80 (73%)	110
Area Hospital (TB)			
Aksy	18 (6%)	15 (5%)	315
Bazarkorgon	15 (6%)	23 (10%)	239
SUB			
Aksy	0	4 (27%)	15
Bazarkorgon	0	3	N/a

Facility managers provided the data on antenatal and delivery coverage rates. This data is concurrent with the results of KPC survey showing that 99% of deliveries take place in Maternity and 90% of women have 3 or more antenatal visits. (See sections *Antenatal Care* and *Delivery and Immediate Newborn Care*).

TABLE. Antenatal and Delivery Coverage Rate as Reported by Facility Managers

Facility Type	Antenatal Coverage Rate	Delivery Coverage Rate	
Oblast Maternity	90%	99%	
Area Hospital		Aksy	Bazar Korgon
		97%	no data

Conclusions

- Groups of Family Physicians (GSV) substituted the outpatient health care facilities of Soviet period represent the main type of facilities providing primary health care to the population.
- The facilities providing inpatient CS and maternal care in pilot rayons are Area Hospitals (TB), one in each of the rayons, and Rural Hospitals (SUB), 6 in Aksy and 3 in Bazar Korgon.
- The available data show high antenatal and delivery coverage rates in Oblast Maternity and Area Hospitals.

Recommendations

- In outpatient facilities, the project should work mostly with GSVs and FAPs.
- Oblast Maternity Hospitals as well as Area and Rural Hospitals should also be targeted by project activities because they manage normal deliveries and obstetrical complications.

Staffing and Trainings

The interviews with Head Doctors of Area Hospitals revealed lack of health care providers at these health facilities. The table below shows that very few numbers of OB/GYNs work at the area hospitals (3 in each). Taking into consideration that they serve big amounts of population (103,702 and 122,000 respectively), the shortage of physicians is obvious.

Health Personnel	Aksy Area Hospital	Bazar Korgon Area Hospital	Oblast Maternity
Nurses and midwives of the highest and first category working\on maternity leave	12/1	19/1	20/3
Nurses and midwives without category working\on maternity leave	10/2	9/0	19/0
OB\GYN working\ on maternity leave	3/0	3/0	17/1
Neonatologists working\ on maternity leave	1/1	1/1	8/2
Anesthesiologists working\ on maternity leave	4/0	3/0	4/0
Generalists working\ on maternity leave	1/0	1/0	2/0

The surveyors managed to interview 25 health care providers who ever had attended delivery. Of the interviewed providers, the majority reported that they passed professional training either in the past year (28%) or in the past five years (44%). Sixteen percents (16%) of the respondents never had any kind of professional training. With respect to training on birth spacing services, 20% said that they never had such training, 24% had this training in the past year, 32% in the past 5 years, and 8% even earlier than 5years.

TABLE. Proportion of Health Care Providers Mentioned Warning Signs during Pregnancy, Delivery and after Delivery Indicating the Need to Refer a Woman to the Hospital

Warning Signs during pregnancy, delivery and after delivery	Proportion of health care providers cited a correspondent sign n=25
previous bad obstetric history / abdominal scars / previous stillbirth	28%
hypertension / headache / swelling / fits	88%
anemia / pallor / fatigue / breathlessness	88%
cessation of fetal movement / baby does not move	32%
abnormal lie / position of fetus	52%
sepsis / foul smelling discharge / postpartum abdominal pain	36%
light bleeding / spotting	36%
hemorrhage / heavy bleeding	72%
multiple pregnancy / large abdomen	20%
obstructed / prolonged labor	20%

The table shows the proportions of health care providers who were able to identify multiple danger signs during pregnancy, delivery, and after delivery are less than a third.

Surveyors' observations revealed interesting data on staff training. Although all physicians in Family Doctor Groups (GSV) were trained as family doctors, meaning that all of them should be able to manage gynecological, antenatal, and pediatric clients, this training seemed to change only a title in their qualification. In reality, the overwhelming majority of physicians continue to manage the kind of clients corresponding to their previous qualification. In particularly, gynecological and antenatal clients mostly were managed by former OB/GYNs. Below is a passage from a surveyor's observations conducted in one of the GSV.

GSV X

There is a lack of health care providers. Only 2 family doctors are available, a former pediatrician and a therapist. They cannot serve gynecological clients. That is why a OB\GYN from rayon level comes every Thursday and consults and serves those clients. The population served is disperse; there were problems with transportation, providers spent a lot of time and energy for traveling there. The physicians repaired the heating system on the 1st floor at their own expense, the second floor was not heated, and so in wintertime the vaccinating department and lab move on the first floor. Instruments were sterilized by washing up and boiling, they do not soak them in chloramines.

Conclusions

- There is shortage of health care providers, especially physicians, in the pilot rayons. These HFA findings correlate with official data showing that numbers of health care providers per 10,000 of population are much lower than on national and even oblast level (See section *Background*).
- Health care providers have demonstrated incomplete knowledge on warning signs during pregnancy, delivery and after delivery indicating the need to seek health care.
- The health care providers that received professional trainings in the last 5 years represent 44% of those interviewed, and in the last year 28%, or never trained - 16%.
- The re-qualification of primary health care providers to family physicians only serve to change a title, since in the majority cases, they continue to serve the type of clients they had before the training. This could be attributed to the fact that this process is relatively new and needs time to operate effectively. In particular, the population often is not aware that this particular health care provider is trained as a family physician.

Recommendations

- Train the professional trainings of health care providers in project rayons in SM/PEPC and IMCI.
- In training activities, collaborate with the Center of Family Medicine, which has very good trainers (some of those were the surveyors during health facilities assessment).

Equipment and Supply

Equipment checklists and surveyors' observations allowed identifying availability of medical equipment and supply at the surveyed health care facilities. The following is extracted from surveyor's observations:

Oblast Maternity:

At the expense of credit the new equipment was acquired, including ultrasonic apparatus, cardio-monitor, some equipment for operation department.

During the HFA the following was revealed in the reanimation department:

There is one narcosis apparatus in the reanimation department. When it is necessary in obstetrics ward they take it from reanimation. They would want to have a narcosis apparatus in a ward also.

Laryngoscope – with curved blade, but it is more desirable to have with straight one.

Aspirators – there are two in obstetrics ward and in the perinatal department - electric one. There is one also in reanimation department, but does not work.

Obstetrics department:

Blood pressure measuring apparatus (tonometers) are lacking; there is one in the department, which they share with the perinatal department. There is shortage of thermometers, suture needles, vaginal speculum, and gloves. Clients usually themselves purchase suture materials, intravenous systems, syringes, i/v solutions and medicines.

The table below reflects a short list of basic equipment and supplies for primary RH/SM services and proportions of health care facilities having them.

TABLE. Proportion of Outpatient Health Care Facilities with Basic Equipment and Supply for Primary RH/SM Services

Items	Equipment and Supply n=10		
	Available	Adequate for demand	Clean, sterile
Examination area that provides privacy	80%	60%	30%
Examination table or bed with washable plastic cover	100%	80%	60%
Source of clean water	60%	50%	10%
Toilet	70%	40%	10%
Adult stethoscope	80%	40%	50%
Blood pressure cuff	90%	40%	60%
Fetal stethoscope	100%	100%	70%
Small specula	30%	10%	20%
Medium specula	70%	30%	40%
Large specula	30%	10%	10%
Hemoglobin test	50%	40%	
Syphilis test	100%	30%	
Antibiotics	10%	10%	
Chairs for provider, and client	30%	10%	
Heating system	67%	0	
Emergency transport	67%	56%	

The table shows that the majority of health care facilities lack hemoglobin tests, some types of specula, and chairs for providers and clients etc. Those items, which are available at the most of the facilities, such as adult stethoscope, blood pressure cuff, syphilis tests etc., are not found in adequate amount.

TABLE. Proportion of Health Care Facilities with Basic Equipment and Supply for Pediatric Services

Item	Equipment and Supply - Available, enough
Enough space for patient examination	70%
Chairs and a table for provider and caretakers	20%
Scales functioning properly	70%
Working watches and stop-watches	10%
Booklet of IMCI schemes or charts	10%
Forms for IMCI patients records	0%
Instructions for Mothers	30%
Cards for recording patients	20%
Materials for child examination (water, cup, spoon)	30%
CDT operation: kids with moderate dehydration receive ORS	50%
Enough space for ORS preparation	40%
A table for ORS preparation/demonstration, chairs for caretakers	10%
Drinking water resource	40%
Ware (cups, spoons, measure capacities)	20%
CDT records book	20%
The list of drugs	60%
Amoxicilline	10%
Procaine penicilline	10%
Chloroquine	10%
Fansidar	20%
Quinine	20%
Bicilline-1	20%
Gentamycine	40%
Bensilpenicilline	10%
Paracetamol	40%
Tetracycline eye ointment	20%
Gencian violet	20%
Iron	20%
Vitamin A	10%
Mebendazole	10%
Chloramphenicol	10%
Sterile water for injection	10%
Oral rehydration salts (ORS)	30%
IV solutions for severe dehydration (Ringer Lactat)	10%
Sterile syringes (for children)	20%
Sterile needles (for children)	20%
Gauze tampons	20%
Disinfection means for skin	20%
Set IV (for infants and children)	10%
Nasogastric suction probes (for infants and children)	10%

The table on the basic equipment and supply for IMCI services shows a shortage of all listed items in the majority of health care facilities, with the exception of adequate space for patients examination and scales functioning properly.

Surveyors' observations showed that even in those facilities where POR (Points of Oral Rehydration) were available and equipped, they often were not used adequately. The reasons mentioned by health care providers were "cold" and "not working heating system", and "absence of children with dehydration."

Conclusions

- The Health Facilities Assessment identified a significant shortage of basic equipment and supplies necessary to implement the Safe Motherhood and especially IMCI strategy.
- Even the availability of equipment does not guarantee its usage, because there was also a low attendance of clients.

Recommendations

- Provide Health Care Facilities with basic equipment and supplies for effective IMCI/SM/RH services delivery within the scope of the program.
- Explore ways to solve the problems with poor working conditions.

Infection Prevention

In order to investigate a) the process of decontamination of instruments and surfaces, b) cleaning of instruments and c) autoclaving the teams of surveyors carried out structured observations. The observations were carried out in Area Hospitals, GSVs , SUBs , FAPs, Oblast Maternity Hospital and Center of Human Reproduction.

None of the surveyed FAPs conducted any disinfection procedures for instruments, gloves and equipment. In SUBs, medical instruments usually were only disinfected in boiling water on electrical portable ovens, and in washing them with water to remove contaminations before boiling. Additionally, as various staff members interviewed mentioned, they wiped the exam tables and other surfaces using chlorine solutions.

In accordance with Surveyors Observations in SUBs and GSVs the staff usually do not pay proper attention to cleanliness in general: health providers do not always wear gowns and even when they put them on, those gowns did not appear to be very clean; the health workers did not know what kind of decontaminant should be used for disinfecting (date of preparation, percentage of chlorine, date of expiration of solution used). The waiting areas were also not very clean.

In Area Hospitals the instruments were sterilized by autoclaving, dry heating and also boiling. Autoclaving and boiling processes in both observed Area Hospitals were conducted properly. Dry heating sterilization was observed in one area hospital and the procedure was also carried out properly.

The observations were also conducted in Oblast Maternity Hospital, in two departments: maternity ward and operating room, and in the Human Reproduction Center. In Oblast Maternity Hospital the team was not able to observe sterilization of instruments through the autoclaving process, as autoclave department was situated rather far from that maternity hospital and sterilization of instruments used for surgeries had been done in early morning.

At the Human Reproduction Center they do not carry out autoclaving and dry heating sterilization of instruments.

The results of 18 observations conducted in SUBs, GSVs, area hospitals, Oblast Maternity Hospitals and Human Reproduction Center on how the health workers follow disinfections procedures at health facilities being assessed are presented in the table below.

TABLE. Proportion of Disinfection Activities Performed Correctly During the Observation

Disinfection manipulations	N=18
Leave on surgical gloves post-procedure or put on utility gloves for decontamination	56%
Place all instruments in 0.5% chlorine solution for 10 minutes immediately after the procedure	56%
Dispose waste material in leak proof container or plastic bag	78%
Decontaminate exam table or other surfaces contaminated during the procedure by wiping them with 0.5% chlorine solution	72%
Remove instruments from chlorine solution after 10 minutes and place them in water	56%
Start cleaning instruments immediately or continued to soak them in water until proper cleaning can be done	83%
Remove gloves by turning inside out and submerged in 0.5% chlorine solution for 10 minutes	67%

The table shows that the most problematic activities are leaving on surgical gloves, or wearing utility gloves for decontamination, putting instruments in 0.5% chlorine solution immediately after the procedure and remove them after 10 minutes

The table below presents the results of observations how the health workers follow procedures of the cleaning process.

TABLE. Proportion of Cleaning Activities Performed Correctly during the Observations

Cleaning	N=18
Wear utility gloves on both hands and place instruments in a basin with clean water and mild non-abrasive detergent	67%
Completely disassemble instruments and/or open jaws of joined items	78%
Wash all instrument surfaces with a brush or cloth until visibly clean	61%
Thoroughly clean serrated edges of instruments using a small brush	33%
Wash surgical gloves in soapy water cleaning inside and out	33%
Thoroughly rinse all surfaces with clean water	61%
Towel dry instruments or allow them to air dry	83%

One can see from the table, that in most cases the health workers “wear utility gloves on both hands” and “places instruments in a basin with clean water” (67%), then “completely disassemble instruments” (78%) etc., “wash instruments with a brush” (61%) and in most cases “towel dry instrument” or “allow them to air dry” (83%). They rarely “clean serrated edges with a brush” (33%) or “wash gloves in soapy water inside and out” (33%).

As to water supply, water to the FAPs usually is brought from the river, de-silted and then used for different purpose.

In one of two SUBs assessed, there was a tap water source outside; another SUB was using the river water. Some GSVs have tap water source (50%). Area hospitals have adequate tap water sources.

Conclusions

- In majority of health care facilities the health workers do not follow all appropriate disinfecting and cleaning activities.
- The health workers need refreshment training on IP practice.
- Most of the health facilities in villages do not have adequate clean water supply.

Recommendations

- Conduct Training of Trainers on WHO standards for Infection Prevention Practices.
- Utilize WHO standards for correct dosage of decontaminants will lower the demand for supplies.
- Look for collaboration with existing local partners to improve the water supplies to facilities.
- Set up monitoring and evaluation components to ensure quality of care.

Breastfeeding and Nutrition

Ninety-eight percents (294 out of 300) of mothers reported that they breastfed their child. Of those mothers, 96% are mothers with children less than 6 months (68 out of 71 children of that age) are still breastfeeding.

Fifty out of 52 (94%) mothers of children aged 6-9 months are still breastfeeding, and 107 (out of 177) of mothers of children above 9 months (61% of that amount of age) are still breastfeeding.

Ninety-four percents (64 out of 68) of mothers with children who were not breastfeeding at the time of the survey, reported that they had breastfed their child in the past.

TABLE. **Timing of the First Breastfeeding**

Time intervals	Proportion of mothers reported the first breastfeeding n=290
Immediately after delivery (during 30 minutes)	43%
Between the first 30 minutes and 8 hours after delivery	39%
Between 9 and 24 hours	7%
On the second day	5%
On the third day	2%
After the third day	4%

The timing of the first breastfeeding is reflected in the table above. The early initiation of breastfeeding is important for lactation stimulation during the entire period of breastfeeding. According to local MOH protocol, “immediately after delivery” means during 30 minutes after delivery. The data in the table show that only 43% of women first time breastfed their child within 30 minutes after delivery.

Of 294 ever breastfed, 92.5% of the mothers gave the colostrums to their child.

Of the children 0 to 5 months of age (71 children), only 9 (13%) were exclusively breastfed; in other words, they were not being given any types of food or fluid, except breast milk during last 24 hours.

The table below shows nutritional patterns of children of 6-9 months who were breastfed and received at least one type of complementary foods. The table shows only types of food appropriate for this age group.

TABLE. The Structure of the Diet of Children of 6-9 months who were breastfed and received at least one type of Complementary Food in the last 24 hours

Type of food	Frequency	Percentage n= 45
Breast milk + at least one type of complementary food	39	87
Breast milk and:		
infant formula	11	24
boiled milk	11	24
Dishes:		
Rice soup	1	2
Mastava (soup from meat, potato, carrot and rice)	9	20
Dimlama (stew)	0	0
Mashed vegetables	3	7
Porridges from:		
rice	4	9
semolina	6	13
buckwheat	1	2
oatmeal	0	0
Vegetables		
Potato	16	36
Carrot	13	29
Protein-rich products		
Meat	16	36
Fish	1	2
Egg	11	24
Milk products		
Yogurt	0	0
Cheese	0	0
Ayran	7	16
Curds	0	0

Fats\Oil		
Vegetable oil	16	36
Butter	0	0
Melons and gourds		
Pumpkin	0	0

It is evident from the Table that the most frequently consumed dish is mastava (soup from meat, potato, carrot and rice) that is 20%. As for porridges, the most popular is semolina (13.3%) and rice (8.9%).

Potato and carrot occupy a prominent place in the diet of children of 6-9 months of age: 35.6% and 28.9% of children respectively in the 24 hours preceding the survey consumed them. Thirty-six percents of children consumed meat in the last 24 hours and 24% consumed eggs. Among milk product, infant formula and boiled milk are presented equally (24% each), and ayran (sour milk similar to kefir) is 16%. Of children of that age, 36% consume vegetable oil added to different dishes.

It might be worth mentioning that 33% of mothers of 6-9 months aged children surveyed reported that they gave to their child fat (including animal/poultry/melted butter), and 36% reported that they gave bread and bakery food to them. The most preferable liquid, as reported by the mothers of that group of children, is tea, since 61.5% of the mothers reported that they gave tea to their child during last 24 hours.

Conclusions

- Less than half of the mothers surveyed reported immediate after delivery breastfeeding (during the first thirty minutes).
- The proportion of mothers of infants of 0-5 months exclusively breastfeed their children is very low (13%).
- Eighty seven percent (87%) of children of 6-9 months receive full-value nutrition.
- The most preferable food being given to their child is potato, meat and vegetable oil (35.6% of each), then carrot (28.9%) and eggs (24.4%).
- Many children aged 6 to 9 months receive animal fat and tea, types of foods/liquids inappropriate for their age.

Recommendations

- Improve breastfeeding practices in maternal departments by introducing Baby-Friendly Strategy.
- Conduct training courses on Breastfeeding for health care providers.
- Work with local health care workers, Social Patronage workers, local NGOs, and community leaders to produce Information, Education and Communication campaigns aimed at educating mothers on advantages and proper implementation of exclusive breastfeeding practices.
- Train health care providers to counsel on appropriate nutrition for children over 6 months of age. Empower healthcare providers to take every opportunity during antenatal visits and postpartum care to give advice on this topic.
- Work with local health care workers, Social Patronage workers, local NGOs, and community leaders to produce Information, Education and Communication campaigns

aimed at educating mothers on advantages and correct feeding practices and full-value diet for children over 6 months.

Child Growth Monitoring and Anthropometry

The monitoring of growth and anthropometrical parameters of children under 2 was investigated.

Ninety-nine percents (99%) of mothers of children under two reported that their child have been weighed at birth. Fifty-two (52%) of the mothers reported that their children were weighed during last four months.

The results of Health Facility Assessment (Well Child Exit Interview) showed that 46% of mothers (out of 24 interviewed) had growth-monitoring card. Exit interviews with mothers of healthy child and observations of sick children consultation showed that in 56% out of 41 cases weight of the child was recorded at the growth-monitoring card. (HFA, Well Child Exit Interview, Sick child Observation).

In 79% of the cases a health care provider discussed the baby's growth. (HFA, Well Child Exit Interview).

None of the children had growth chart in their growth-monitoring card.

The health worker provided the mother with nutritional advice in 50% out of 24 cases (HFA, Well Child Exit Interview).

The KPC survey included an investigation of the nutritional status of children under two. For this purpose weight and height have been measured during the interviews with mothers of children under two. Those data were used to determine the malnutrition indicators as wasting (weight to height, acute malnutrition), stunting (height to age, chronic malnutrition) and integrated index (weight to age).

The results are expressed z-scores (standard deviation) as the most convenient for mathematical manipulation and analysis. Nutritional status of children under two in pilot rayons is presented in the tables below. The children having z-scores less than -2 are classified as having global malnutrition (moderate or severe), whereas children having z-scores less than -3 are classified as having severe malnutrition.

TABLE. Proportion of children of 0 to 24 Months with Malnutrition in Aksy and Bazar-Korgon rayons of Jalalabat oblast

Gender	Height/Age (Cronic Malnutrition) n=261		Weight/Height (Acute Malnutrition) n=264		Weight/Age n=260	
	Global Chronic Malnutrition (z-score less than -2)	Severe Chronic Malnutrition (z-score less than -3)	Global Acute Malnutrition (z-score less than -2)	Severe Acute Malnutrition (z-score less than -3)	z-score less than - 2	z-score less than - 3
Males	17.6%	3.9%	0.7%	0.0%	4.5%	3.7%
Females	15.7%	4.6%	0.9%	0.0%	1.9%	0.9%
Total	16.7%	4.3%	0.8%	0.0%	3.2%	2.3%

The data in the table indicate that 16.7% of surveyed children had global malnutrition, and 4.3% of them had severe chronic malnutrition. According to weight to height indicator 0.8% children suffer from global acute malnutrition and none of them had severe acute malnutrition. Regarding the weight-to-age score, 3.2% of children suffered from global under-nutrition, of them 2.3% were severely undernourished.

Conclusions

- KPC data showed that only half of the children under two were weighed during the last four months.
- According to HFA findings almost half the children brought to health care facility did not have weight recorded at the growth-monitoring card.
- Growth-monitoring charts were not currently in usage in pilot rayons.
- The proportion of children with stunting is 16.7%. This means that this proportion of children is behind the reference population by their heights due to every day poor diet. Background chronic diseases such as anemia and rickets often accompany the condition of chronic malnutrition. Stunting increases the risk of acute illnesses and death, as well as delays physical and mental development. Educating parents on correct nutrition and full-value diet can reduce these risks.
- None of the children surveyed suffered from acute malnutrition.

Recommendations

- Train health care providers in growth-monitoring skills. Train them to weight the children regularly and record the weight at the growth-monitoring card.
- Introduce growth charts and train health care providers for its usage in order to facilitate growth-monitoring activities and ensure timely detection of deviations of anthropometrical parameters.
- Create Women's Support groups – to promote nutrition activities for mothers and other caregivers on the care of children under two including:
 - Introduce complementary food in due time (starting with 6 months);
 - Ensuring adequate diet for that age group;
 - Active feeding
 - Home-care rules during childhood illnesses recommended by IMCI.
- Train primary health workers to be able to provide appropriate counseling and management by using IMCI protocols on nutrition.

Sick Child

Knowledge and practices of mothers of children under two on early detection of danger signs in children, indicating the need to seek health care, were also studied. Forty-seven percents (47%) of mothers surveyed (141 out of 300) mentioned at least two correct danger signs in children.

The “high fever” as a danger sign was mentioned by 85% of mothers. As to frequency of the other danger signs mentioned, the following answers were given in decreasing order: 33% of the respondents cited “not eating or drinking normally”, 22.5% - “looks unwell or not playing normally”, 9% - “lethargic or difficult to wake up”, 9% - “vomits everything”, 4% - “fast or difficult breathing”, 2% - “convulsions”. None of the respondents cited “blood in

stool". In "Other" category the following signs were mentioned: cough (52%), cry (29%) and diarrhea (20%).

Amongst mothers surveyed, 46% reported that they did "not observe any illness signs in children" during two weeks prior to the survey and 4% said that they "did not know."

The following signs were mentioned by the rest of the mothers: cough – 63%, diarrhea - 33% (50 cases, including 1 case with blood in stool), fever -20%, fast breathing – 7%, difficult breathing – 6%, and convulsions were not mentioned at all.

Fourteen percents (14%) of mothers observed both diarrhea and cough in their child during two weeks preceding the survey. Three percents (3%) of mothers reported "cough with difficult and fast breathing" in their child.

Twenty-eight percents (28%) of mothers during diarrhea and 36.5% of mothers during cough episode in their child, sought advice/treatment outside home.

The findings of health facility assessment (Sick Child Exit Interview) revealed that 20% of mothers (3 out of 15) had sought advice/treatment somewhere else before they came to that health facility. Two mothers visited a doctor, and one mother visited a nurse.

"Early visits" to the health care facility is an important step to prevent complications from childhood illnesses. Five mothers out of 15 (33%) came to the health care facility in the first day after they have noticed signs of illness, 4 (26%) mothers – during 3 days, 3 mothers (20%) – during a week, 1 mother (7%) – in 10 days, and 1 mother (7%) – in 30 days.

When asked who advised them to come to the health facility, 11 mothers out of 15 (73%) reported that it was their own intention, 2 mothers (13%) mentioned a health worker, 1 (7%) mother mentioned mother-in-law, and 1 mother said that a relative advised her to visit the health care facility.

When asked about illness signs indicating the need to seek health care the following answers were given by 15 mothers (HFA, Sick Child Exit Interview): "worsening of health condition" (60%), "fever" (33%), "fast breathing" (20%), "difficult breathing" (13%), "blood in stool" (7%) and "difficult to drink" (7%).

Only six mothers (40%) mentioned at least two signs of child's illness indicating the need to seek healthcare.

The investigation of the level of knowledge of health workers showed the following results: amongst 21 health workers interviewed (HFA, Pediatrician Interview), 33% (7 out of 21) mentioned at least 2 signs of child illness indicating the need to seek health care, 19% mentioned 3 signs, the same proportions 4 and 5 signs.

One of the health workers interviewed (1 out of 21) was trained on IMCI during last year.

Six out of 21 primary health care providers reported that they had cases when they had failed to hospitalize a sick child. The main reasons were: "parents did not have money", "the parents refused", and "no transport available".

The table below reflects the topics covered by health personnel during sick child consultation.

TABLE. The Activities Performed by Health Care Workers During Sick Child Consultation

Activities Performed	Percentage of answers n=21
Danger signs explained	33
Home-care rules explained	52
Giving drugs at home explained	29
Pills intake demonstrated	10
Show and explain the dosage	14
Let a caregiver to practice on how to give medicines	5
Find out what was undertaken at home and which symptoms a child has	29
Disease prevention explained	67
Explain when to come again immediately	24
Next visit	33
Make sure her/himself the parents understood what has to be done at home	19
Other (sport, breastfeeding, tempering procedures)	38

The table shows that very few health workers mentioned the demonstration of how to take drugs at home (10%), showed and explained the dosage (14%), and let caretakers practice in giving medicines (5%).

Sick child consultation observation (in the HFA) discovered that none of the health workers followed all steps of sick child outpatient management in accordance with IMCI protocols.

Conclusions

- Less than half of the mothers with children under two surveyed know at least two correct signs of illness at children indicating the need to seek for health care.
- The majority of mothers do not seek for health care in time.
- Knowledge and skills of primary health care providers managing children are out-dated: only one third of all amount of health workers interviewed mentioned at least two signs of child illness indicating the need for health care
- None of health providers followed all steps in accordance with IMCI protocols, and none of them used growth chart.
- Primary health workers rarely explain caregivers and demonstrate practically how to treat sick children at home.
- Referral system frequently fails because of lack of resources.

Recommendations

- Improve knowledge of mothers on signs of childhood illnesses indicating the need to seek health care.
- Empower parents in timely and independent decision making about taking a child for treatment.
- Elaborate, organize, and conduct IMCI trainings for health care workers.

Childhood Diarrhea

According to official statistics of Kyrgyzstan, 5,000 to 5,500 children under 5 have diarrhea each year. Childhood diarrhea is one of the leading causes of childhood mortality worldwide. The frequency of diarrhea among children under two, skills and knowledge of their mothers to manage this condition at home, and professional advice seeking behavior were investigated.

Fifty out of 300 mothers surveyed (16.7%) reported that their child experienced diarrhea during two weeks prior to the survey.

Pills or syrup were mentioned by 44% of mothers as a remedy given to children for diarrhea. Twelve percents of mothers gave “homemade remedies”, 6% offered homemade liquids and the same proportion gave ORS solution. The intravenous medicines were not mentioned.

TABLE. Sick Child Home Care Patterns as Reported by Mothers of Children Under Two with Diarrhea Episode

Amount of breast milk, liquids or foods	Proportion of mothers offered to their child	Numerator/Denominator
More than usual amount of breast milk	19.4%	7 out of 36 (number of breastfed children experienced diarrhea)
The same amount of breast milk	72.2%	26/36
Less breast milk than usual	5.5%	2/36
Not breastfeed	28%	14/50 (number with diarrhea)
Did not know	5.5%	2/36
More than usual amount of fluids	44.4%	20/45 (number with diarrhea and not breastfed or breastfed but not exclusively)
The same amount of fluids	46.7%	21/45
Less fluids than usual	8.8%	4/45
No any fluids at all	8.9%	4/45
More than usual amount of foods	6.7%	3/45
The same amount of foods	57.8%	26/45
Less foods than usual	26.7%	12/45
No any foods at all	6.7%	3/45

The table above shows that only 19%, 44% and 7% of mothers offered their children more than usual amount of breast milk, fluids and foods respectively.

Eleven out of 50 (22%) mothers with children under two, experienced diarrhea during two weeks prior to the survey reported that they sought advice/treatment from someone outside home. Three mothers out of 11 (27.3%) reported that they went first to FAP, 2 mothers (18.2%) attended GSV, and 1 mother went to SUB.

Two out of 15 mothers interviewed at the health facilities (HFA, Sick Child Exit Interview), reported children’s diarrhea as a reason of visit. Both of them gave correct answers on how much water to use for preparing liquid for ORS package (1 liter). Eight mothers out of 15 (53%), on the question how much fluid should be given to a child with diarrhea, answered “more than usual”, 4 mothers (27%)–“the same amount”, 1 mother (7%) – “none”, and 2 mothers said that they “did not know.”

The observation of sick child consultation at the health facilities revealed 2 cases of diarrhea out of 17 (11.8%) observations.

In one case out of 2, the health care provider asked about blood in stool, but none of them checked if the child was able to drink liquids/suck the breast. In one case the health care provider determined the elasticity of the skin, but did not pay attention if the child's eyes were sunken or not. Health care providers explained how to use a prescribed medicine, but did not demonstrate how to take it, did not let a mother practice giving the medicine to the child, did not explain how to prepare the ORS at home, and did not tell anything about drinking/eating at home more than usual.

Conclusions

- The majority of mothers showed low level of knowledge and correct practices during episode of diarrhea at their children.
- The small number of diarrhea cases at the health facilities observed could be referred to the cold season as well as to very low attendance in general. It did not exclude the threat of epidemic of diarrhea diseases in hot season.
- Despite the fact that all health care workers in Bazar Korgon GSVs and part of health care workers in Aksy GSVs were trained on IMCI, their knowledge and skills on childhood diarrhea management were not satisfactory.

Recommendations

- Improve maternal home-care knowledge and skills through educational campaign (mass media, posters, brochures and booklets).
- Educate home caretakers on children danger signs of diarrhea, feeding during diarrhea episodes.
- Train primary health workers on IMCI to provide quality health care for childhood diarrhea.
- Establish, improve, and regulate the operation of Points of Oral Rehydration (POR). (see section *Equipment and Supply*).
- Explore the incidence of diarrhea in summer months.

Acute Respiratory Illnesses

Mortality of children under 1 from Acute Respiratory Illnesses constitutes 35.7 in Jalalabat oblast. Both KPC survey and HFA included questions to study knowledge and practices of mothers and health care providers related to childhood ARI management.

Of 300 mothers with children under two surveyed, 100 (33%) reported that their child had an illness with cough during the two weeks preceding the survey. Thirty mothers (30%) reported that their child at the same time had trouble breathing or breathed faster than usual.

Thirty-five mothers out of 100 (35%) reported that they sought advice/treatment outside the home. Eleven out of 35 (31.4%) went to GSV to get advice/treatment for the cough, 8 (23%) mothers went to SUB, 7 (20%) mothers went to FAP, 2 mothers (6%) went to Area Hospital, one mother went to CSM and one mother went to a friend/relative to get advice/treatment for cough.

Of 100 mothers with children having cough during last two weeks prior to the survey, 59% reported that they gave “homemade fluids” to their child for cough, 12% of mothers gave “tablets/syrup”, 3% mothers reported that their child were given an “injection” for cough.

Seventeen mothers (17%) reported that they did not know/remember what was given for their child and 3% of mothers reported that they did not give anything for cough.

TABLE. Sick Child Home Care Patterns as Reported by Mothers of Children Under Two Having ARI

Amount of breast milk, liquids or foods	Proportion of mothers offered to their child %	Numerator/Denominator
More than usual amount of breast milk	28%	22 out of 79 (number of breastfed children experienced ARI)
The same amount of breast milk	59.5%	47/79
Less breast milk than usual	10%	8/79
Did not know	2.5%	2/79
Not breastfeed	21%	21/100 (number with ARI)
More than usual amount of fluids	38%	31/81 (number with ARI and not breastfed or breastfed but not exclusively)
The same amount of fluids	64%	52/81
Less fluids than usual	11%	9/81
No any fluids at all	9%	7/81
More than usual amount of foods	6%	5/81
The same amount of foods	64%	52/81
Less foods than usual	26%	21/81
No any foods at all	2.5%	2/81

The table above shows proportions of mothers offered more amounts of breast milk, fluids or foods to their child having ARI were 28%, 38% and 6% respectively.

During the observation of sick child consultation at the health facilities the following results were obtained: 6 cases out of 17 (35%) were cases with “cough/heavy breathing”.

In 3 cases (50%) the health care workers did not take the temperature of the children. They asked when the cough had started in 5 cases (29%), counted the number of breaths per minute in 2 cases (33%), determined chest in-drawing in 3 cases (50%) and checked presence of the strider in 1 case (17%).

Concerning the quantity of danger signs assessed by the health care providers, 1 danger sign was assessed in 3 cases (50%), 2 danger signs were assessed in one case (17%), and in 2 case none of the danger signs was assessed (33%).

In 4 cases (67%) the diagnosis corresponded to the child’s condition, in 2 cases (33%) the diagnosis did not correspond.

Conclusions

- In comparison to mothers' responses to diarrhea episodes at children, twice as many mothers with children under two reported their children had a cough during two weeks prior to the survey.
- Only one third of those mothers sought advice/treatment for illness with cough.
- The findings showed lack of adequate knowledge of mothers on home care of sick child in general and with ARI in particular.
- Health workers need up-to-date information on integrated management of ARI.

Recommendations

- Develop IEC materials addressing danger signs of ARI.
- Educate mothers to come to the health facility promptly when her child shows danger signs.
- Increase and strengthen capacity of health providers on Integrated Management of Childhood Illnesses and in particular on ARI.

Immunization

Immunization coverage was investigated through the HFA survey (Well child Exit Interview). The results obtained were hardly representative enough to make any conclusions in this sphere. The reason is that the interviewers not always were able to get the EPI cards from health workers to verify answers being given by the respondents on the type of vaccines their child had got before and real immunization status recorded in an EPI card. Sometimes EPI cards were not available at the FAPs because they (EPI cards) had been sent to GSV to a supervisor, as reported by the staff, or, as it happened in another FAP, new hired staff was not able to find them after previous staff left the FAP.

Time after time, GSVs sent to the FAPs were in charge of some part of necessary vaccines in portable vaccine thermoses. Because of lack of refrigerators and vaccines at the FAPs, after opening of the vaccines, health workers try to immunize as many children as possible. The day of vaccination is planned beforehand; on that day all mothers with children to be immunized are invited by health staff to come at the health care facility. Children who are to be vaccinated because of their age, as well as those children who were not able to get immunization in proper day due to illness or absence by some reasons, come and get the vaccine. As a rule, immunization cards are kept at the health facilities, and when mothers arrive for immunization they get access to this card.

During the period of conducting the HFA survey, both teams missed being in the health facility on the Immunization day. But, as they had to interview mothers with children coming at the health care facility, sometimes it took more time to select a health facility. Eventually, they asked health workers to invite those mothers with children under two to attend the health care facility in order to get information about their previous visits and their knowledge about immunization.

The following results were obtained through interviewing mothers with children under 2 having come at the health care facilities.

Seventeen mothers out of 24 (71%) interviewed reported that they have immunization card of their child, 9 mothers (29%) reported that they did not have it (HFA, Well Child Exit Interview).

Fifty-eight percents (14 out of 24) of mothers reported that a health care worker did not explain which vaccine their child had received; 25% of mothers said that the health care worker explained it and 17% (4) of mothers did not remember if the health worker explained it.

Seventy-nine percents (19 out of 24) mothers reported that a health worker explained possible side effects after vaccination. (HFA, Well Child Exit Interview).

“High fever” as a possible side effect after vaccination was mentioned by 85% (33 out of 39) of mothers, “irritability” – by 28% (11) of mothers (including those 7 mothers who also mentioned fever) (HFA, Well Child Exit Interview, Sick Child Exit Interview). “Local swelling” (including one mother mentioning high fever), “weakness and local fever/redness” were mentioned one time each as possible side effects after vaccination at the children.

Eight percents of mothers (3) reported that they did not know anything about side effects after vaccination at the children.

When asked about diseases could be prevented by vaccines, 5 out of 15 mothers (33.3%) reported that they did not know about such a disease (HFA, Sick Child Interview).

“Measles” as a preventable disease was mentioned 10 times (45.5%), “hepatitis”-5 times (23%), “diphtheria” was mentioned 3 times (13.6%), “tuberculosis” and “poliomyelitis” were mentioned 2 times each (9.1% each), and “whooping cough” was mentioned one time.

“Mumps” and “tetanus” were not mentioned at all as preventable diseases. Four out of 17 (23.5%) of health providers observed looked at the child’s immunization card when consulted sick child (HFA, Sick Child Consultation Observation).

In accordance with immunization cards 2 out of 2 children under 6 months received all necessary vaccines due to their age.

Of 4 children of 6-12 months age, 2 children had recorded in their card all due vaccines, and 2 of them did not receive all vaccines in accordance with their age: hepatitis-2 was not received by both, hepatitis-3 and polio -1,2,3,4 were not received by one child.

The immunization coverage was investigated through interviewing of the heads of the health facility assessed. The team looked at the statistical reports prepared on the issue at the health facilities. The table below presents the results obtained.

TABLE. Results on Investigation of Immunization Coverage in Pilot Rayons of Jalalabat Oblast (HFA, POUS).

	GSV	FAP
BCG	105.3%	98.5%
DPT-1	99.0%	93.8%
DPT-2	98.3%	94.0%
Measles	95.0%	90.3%

One can see from the table that the immunization coverage in general is rather high.

Conclusions

- Due to the fact that vaccinations are given depending on the availability of certain vaccines at the health facilities, mothers are not concerned about timely vaccination of their children and usually passively wait for notification from the health facility as to when to come to get the vaccine.
- The majority of mothers do not know which diseases could be prevented through timely vaccination of their children.
- In most cases the health providers do not explain which vaccine the child receives and only informs the mother on possible side effects after vaccination.
- The health providers interviewed do not have proper knowledge on children vaccination schedule.
- The results on immunization coverage obtained through interviewing of the head doctors show relatively high coverage by immunization.

Recommendations

- Conduct a campaign for raising awareness about immunization issues amongst targeted population to make caretakers aware of the need for timely vaccinations of their children.
- Train health providers to notify the population beforehand to get all children immunized in due time and get mothers aware of timely immunization of their children.
- Provide caregivers with a proper copy of immunization card to keep them informed on immunization status of their children.
- Conduct training for health care providers on immunization issues.

Antenatal care

The quality of antenatal care was explored in the questionnaire of mothers of children under two. The proportion of women who made at least one visit to the health care facilities for antenatal care while being pregnant was 99 %. Of them 79% visited a health care facility at the 12th week of pregnancy or earlier. Both median and mean of the timing of the first antenatal visit are 3.

Twenty-nine percents (29%) of pregnant women went to Rural Hospitals (SUB), 31% visited Family Physicians Groups (GSV), and 21% went to Feldshars and Midwifery Point (FAPs).

The proportion of women reported at least 3 antenatal visits was 90%. The median number of antenatal visits was 8, and the mean was 19. High mean is attributed to the fact that few women (3%) have reported very big number of visits (20-30 times).

The knowledge of mothers of children under two as well as men of reproductive age on danger signs during pregnancy was investigated. The proportion of mothers mentioned at least 2 danger signs during pregnancy was 51%. Among men this proportion was 14%.

According to the male respondents, the decision to go to health care facility in case of danger signs during pregnancy, delivery and after delivery is made by women or together with husbands in 42% of cases.

According to mothers of children under two, women by themselves made this decision in 53% of cases. On the question about the place to go in case of danger signs 35 % of mothers mentioned SUB, 22.5% said GSV and 15% would go to FAPs.

Few women reported iron intake for 3 months (2%) or longer (2%). The median duration of iron supplementation was 15 days and the mean was 24 days.

The type and frequency of information provided to pregnant women during antenatal care was investigated.

TABLE. Proportion of Women Received Advice During Antenatal Visits

Topics	Proportion of women received advice n=293
Delivery Preparations	74%
Breastfeeding	77%
Child Spacing	62%
EPI	63%
Danger Signs of Pregnancy	57%
STI	54%

The table shows that about three-fourths of the women have received advice about delivery preparation and breastfeeding during their antenatal visits. The information about child spacing and EPI have been received by almost two-thirds of the respondents. A little more than half of the women were informed about danger signs of pregnancy and STI.

According to MOH protocols iodine medicines are routinely administrated to pregnant women during the whole period of pregnancy and breastfeeding. The proportion of mothers reported that they took iodine during the entire of pregnancy was 2%, and during breastfeeding 1%. Thirty-two percents of mothers (32%) have reported that they took iodine during pregnancy or breastfeeding, but not regularly.

The quality of antenatal care was studied in exit interviews with antenatal clients. The table below provides data on proportion of antenatal care activities performed by health care providers.

TABLE. Proportion of Women Mentioned Performance of Antenatal Care Activities by Health Care Providers

Activities during antenatal visit	Proportion of activities performed n=29
Check BP (in every visit)	76%
Perform abdominal examination (in every visit)	69%
Listen to the baby's heartbeat (in every visit)	66%
Take history	83%
Take a blood sample	83%
Take a urine sample	76%
Give iron supplements	45%
Provide information on nutrition	83%
Discuss the place of birth	72%
Give advise to deliver in health facility	69%
Give advise what to do in case of a problem (danger signs)	10%
Discuss child spacing	55%
Talk about STI/HIV/AIDS	31%
Discuss how to get to health facility in case of emergency	31%
Inform about exclusive breastfeeding	52%

Exit interviews with pregnant women who visited a health care facility for antenatal care shows that not all activities required for quality antenatal care are performed by health care providers. The data in the table above show that the clinical part (examination and lab tests) is carried out better than clients' counseling.

The highest proportions of activities conducted during antenatal visits are “taking blood sample” and “taking history” (83% each). The lowest proportions among clinical activities are “listening of baby’s heartbeat” and “giving iron supplementations” (66% and 45% respectively). Among counseling activities the most frequently provided advice is “nutrition” (83%). Rarely were pregnant women counseled on “what to do in case of danger signs” (10%), “information on STI/HIV” (31%), and “information on where to go in case of emergency”(31%).

TABLE. Antenatal records review\ Proportion of tasks performed

Tasks performed according to the records	Proportion of tasks performed n=143
Number of antenatal visits 3 and more	89%
First antenatal visit during first 12 weeks of pregnancy	55%
BP measured during each visit	92%
Results of urine test (protein in urine) each visit	5%
# of pregnancies (gravida) recorded	94%
Results of Hb test recorded	97%
Results of syphilis test recorded	85%
Iron supplementation recorded	62%

The results of antenatal records review showed higher proportion of antenatal activities performance than exit interviews with antenatal clients. Thus, for example, blood pressure measured during each antenatal visit was found 92% from antenatal records and 76% from exit interviews. Iron supplementation was recorded in 62% of antenatal records and was mentioned by 45% of antenatal clients. Only 5% of women have tested their urine during each antenatal visit.

Conclusions

- Only half of the surveyed mothers and less than one-sixth of men correctly mentioned at least 2 signs of danger in pregnancy.
- The proportion of pregnant women having at least 3 antenatal visits is high (90%). It means that the overwhelming majority of women recognize the importance of antenatal visits and attend health care facility sufficient number of times.
- More than three- fourths of the women reported early first antenatal visit (on 12th week or earlier). However, this indicator was much lower when calculated from antenatal records review (55%).
- Health care providers frequently miss the opportunity to provide important health messages during antenatal visits. More than third of the mothers of children under two did not receive any information on STI, danger signs of pregnancy and child spacing methods during their antenatal visits. The other topics are not provided routinely as well.
- Urine is not tested routinely during each antenatal visit.
- More than one third of antenatal clients were not prescribed iron supplementation. The majority of those who reported iron intake, receive it during short period of time (less than 2 months).

- An Overwhelming majority of women reported intake of iodine during pregnancy or postpartum period received it not regularly.

Recommendations

- Increase knowledge of targeted populations on danger signs during pregnancy. It can be done systematically through health care providers and social workers as well as by means of posters, brochures and booklets.
- Improve counseling skills of health care providers. Trainings on counseling skills would be very useful. It is important to stress during the training that the whole set of health messages recommended by WHO during antenatal visit are be provided to antenatal client.
- Conduct Safe Motherhood trainings for health care providers or support MOH in this activity. During the trainings to stress the importance of some components of antenatal care such as:
 - Administration of urine test during EACH antenatal visit in order to identify timely the cases of pre-eclampsia and prevent eclampsia.
 - Routine administration of iron and iodine supplements to antenatal postpartum clients and detailed explanation on the duration of intake.

Delivery and Immediate Newborn Care

The proportion of mothers giving birth at maternity house was 98%. Trained personnel (high- or mid- level) assisted delivery in 99% of cases, whereas 1% said that TBA attended their delivery.

Thirty-five percents (35%) of the newborns were put upon mother immediately after the birth. The majority of mothers mentioned that their child was put on infant bed or swaddle bed.

At least 2 danger signs during delivery were mentioned by 22 % of women. Among men this proportion was 6%.

Thirty-nine percents (39%) of women, 27% of men, and 10% of youth mentioned two and more danger signs, which could be observed in newborn children during the first 7 days after delivery.

Normal delivery records review showed the gaps in the service provision in maternity.

TABLE. Normal delivery records review\ Proportion of activities recorded

Activities recorded	Proportion of activities recorded n=60
Vaginal exam performed at least once: in six hours (MOH protocol) in four hours (WHO protocol)	78% 58%
Fetal heartbeat measured at least hourly	10%
BP measured at least hourly	18%
Birth weight recorded	100%
Baby's condition assessed	98%
Antenatal care recorded	98%

As it is can be concluded from the table above, the activities always or almost always performed are birth weight recorded, baby's condition assessed, and antenatal care recorded. The activities

rarely performed are fetal heartbeat measured at least hourly (10%) and BP measured at least hourly (18%).

There is difference in the requirements of the frequency of vaginal exam. WHO protocol requires doing vaginal examination once in 4 hours, whereas MOH protocol allows doing it at least once in 6 hours. The proportion of vaginal exams done at least once in 6 hours is 78%, and in 4 hours is 58%.

Management of obstetrical complications was investigated. Eclampsia and pre-eclampsia as well as obstructed labor records were reviewed. The tables below showed the results of the review.

TABLE. Complicated Delivery Records Review\ Eclampsia and Pre-eclampsia cases

Activities recorded	Proportion of records n=30
Administration of antihypertensive medication recorded	87%
BP checked and recorded at least hourly	37%
The fetal heartbeat checked and recorded at least hourly	20%

Anticonvulsive or sedative drugs were administrated in 97% of cases with convulsions.

Surveyors managed to identify 24 records of obstructed labors. Partograph was not used in any of the health care facilities. In the Jalalabat oblast maternity hospitals, OB\GYNs told interviewers that they used partographs last year during few months, but stopped using them because they lacked the necessary forms.

Obstructed delivery records were reviewed. No cases of stillbirths were found in this sample. It can be attributed to the fact that in some health care facilities they are selected and kept separately. The delay in decision-making was noticed in 15 (62.5%) cases out of 24: labors lasted longer than 12 hours. The median of labors duration was 15 and the mean was 14.

Conclusions

- Almost all mothers in pilot rayons gave birth in health care facilities.
- Two-thirds of newborns were not put upon mothers “skin-to-skin” immediately after delivery.
- Mothers of children under 2 and men have low knowledge on danger signs that can occur during delivery.
- Women, men, and youth of pilot rayons have very low knowledge on danger signs in newborn baby within 7 days after delivery.
- In normal delivery management the weak points are fetal heartbeat measured at least hourly – it was recorded in 18% of cases; and BP measured at least hourly – it was recorded only in 10% of cases.
- Even in eclampsia or pre-eclampsia cases the proportions of BP and fetal heartbeat measurements performed at least hourly were very low (37% and 20% respectively).
- More than half surveyed records with obstructed labor described deliveries lasted longer than 12 hours. Absence of partographs can contribute to delay in decision-making in case of obstructed labors.
- One of the reasons of non-usage of the partographs is lack of blank forms.

Recommendations

- Train health care providers and introduce Baby Friendly Strategy in maternity departments of Area Hospitals (TB) and Rural Hospitals (SUB).
- Refresh clinical skills of health care providers in normal and complicated deliveries management. Stress the importance of BP and fetal heartbeat hourly measurements in timely detection of mother's eclampsia and fetal hypoxia.
- Train health care providers and introduce the usage of partographs for timely management of obstructed labors.
- Look for ways to and solve the problem with lack of blank forms of partographs.
- Increase knowledge of targeted population on danger signs in delivery and newborn child.

Postpartum Care

The KPC survey includes questions on postpartum care. The mothers of children under two were asked questions on check-ups they had after delivery.

The proportion of mothers having at least one check-up after delivery (excluding the check-ups in maternity house) was 61%. Ninety-eight percents (98%) of mothers out of 181 having at least one check-up had received this check-up from health care providers. Eighty-five percents (85%) of mothers reported that their newborn child also had a check-up (out of maternity house).

Twenty-six percents (26%) of mothers had second postpartum check-up, 99% of them were checked by health care providers, 55% of them reported that their child's health was also checked.

Ten percents (10%) of mothers and 8% of men mentioned correctly at least 2 danger signs in postpartum period.

Eighty-nine percents (89%) of men mentioned correctly the place where to take a woman in case of danger signs. Forty-two percents (42%) of men said that in case of danger signs the decision to go to health care facility would be made by the woman herself or together with a husband.

Just 39 % of mothers, 27% of men and 10% of youth cited at least 2 signs in a child within 7 days after delivery indicating the need to seek health care.

TABLE. Proportion of activities performed by health care providers during postpartum check-ups in maternity department of CRB or SUB

Required activities	Proportion of activities performed n=25
Measure BP	92%
Perform an abdominal examination	100%
Perform a vaginal examination	80%
Ask about bleeding	88%
Examine the baby	100%
Give information how to care baby	100%
Discuss birth spacing	52%
Explain usage of the birth spacing method chosen	36%
Explain possible side effects of the birth method chosen	24%
Discuss what to do if experience any problems	20%
Discuss exclusive breastfeeding	96%
Length of consultation (mean; median)	12; 10 minutes

The table shows the gaps in postpartum care provision. The activities connected with postpartum examination of mother and newborn child are performed regularly. Always or almost always is given advice on how to take care of a baby and on exclusive breastfeeding (100% and 96% respectively). However, only half of the postpartum patients have received information on child spacing, 36% were given explanation on the way of BS methods, 24% of the women were provided information on possible side effects of the birth method chosen, and 20% of them were advised what to do in case of a problem.

Conclusions

- Only two-thirds of the women in postpartum period received at least one check-up (out of maternity).
- Women and men have low knowledge on danger signs of postpartum period.
- Women, men and youth have low knowledge on danger signs in newborn baby within 7 days after birth indicating the need to seek health care.
- Women do not always go and receive outpatient postpartum check-ups, although 99% of women deliver in maternity.
- The information on birth spacing methods, their mode of usage, possible side effects and actions in case of a problem is provided to low proportion of women in postpartum period.

Recommendations

- Increase knowledge of targeted population on danger signs of postpartum period and in newborn baby.
- Improve the skills of health care providers for appropriate counseling in postpartum period. Stress the importance of informing of postpartum patients in maternity department on birth spacing methods.
- Taking into consideration lack of OB\GYNs in area hospitals of the pilot rayons, the counseling activities can be carried out by mid-level personnel (See section *Staffing and Training*). Thus, it is important to train midlevel professionals to provide regular health messages required in postpartum period.

Sexually Transmitted Infections

The knowledge on sexually transmitted infections was investigated by interviewing females and males of reproductive age, and youth of 16-18 age.

There were 7 questions in a questionnaire for each target group of the respondents. The results are presented in the table below.

TABLE. Knowledge of Females and Males of Reproductive Age, and Youth of 16-18 years old on STIs

Questions	Females %	Males %	Youth %
Ever heard on STIs	93	93	81
Knowledge on STI signs in men (at least two correct signs)	17	39	11
Knowledge on STI signs in women (at least two correct signs)	24	13	4
Knowledge on STI signs in women + asymptomatic in women	10	7	3
Knowledge on where to get treatment for STI (at least one correct place)	78	83	60
Knowledge on possibility to prevent STI	89	91	72
How to prevent STI (at least two correct ways)	37	39	22

The overwhelming majority of the respondents have ever heard about STIs, more than 90% people surveyed.

The male respondents according to the results are the most informed on STI issues part of the population. Thirty-nine percent of men surveyed knew at least two correct signs of STI at men, whereas only 17% of women and 11% of youth could name at least two correct signs. As to STI signs in women, 13% of men mentioned at least two correct signs, 24% of females and 4% of youth.

Knowledge of the fact that STI could be asymptomatic in women was much poorer compared to other issues investigated; just 10% of women, 7% of men and 3% of youth were aware of the asymptomatic nature of STIs.

The majority of the respondents knew where to get treatment for STI, 83% of men, 78% of women and 60% of youth were able to name at least one appropriate place. Thirty-nine percents (39%) of men, 37% of women, and 22% of youth surveyed cited at least two ways of prevention STIs.

In order to investigate the STI management at outpatient health facilities in the target area two instruments have been used: STI Patient Observation and STI Patient Exit Interview.

FAPs are not equipped and staffed to serve any STI clients. When such a client appears she/he is referred to GSV, or, in case of the FAP serves very remote area, a gynecologist from higher level (GSV) visits that FAP in a certain day and consults the gynecological clients (HFA, Surveyors Observations).

Most of the FAPs surveyed lack of educational and information materials on STI issues, including brochures, leaflets and posters.

During the observation one of the team members sat in the room at the health facility assessed. When a woman with complaints on having illness signs most likely to be STI symptoms came to

the doctor, the surveyor, after getting her and doctor's agreement, observed the consultation and filled in the form. Another team member waited outside the room and took the exit interview with the same client, if she agreed.

The results obtained through Observation are presented in the table below:

TABLE#. Primary management of Cases Suspected for STIs

Required Task Covered	Percentage n=17
Complains identified (stio101-102.96)	100
History thoroughly collected (stio103a-103c)	0
Physical examinations (with specula, bimanual) performed correctly (stio104, 108a, 110)	82
Explanation on importance of exams are given to patient	6
Exam gloves are used and thrown out (stio105)	94
1 Lab test administrated (only Gram stain)	71
Diagnosis decided (stio301)	94
Treatment prescribed: 1 drug (stio302-306.7)	18
2 drugs (stio307-311)	53
3 drugs (stio312-316)	6
4 drugs (stio317-321)	18
No drugs prescribed	6
Importance of completing full course of treatment explained (stio325)	29
Risk of HIV/AIDS mentioned (stio326)	0
Condoms provided free of charge (stio328)	0
Sold (stio328)	6
Instructions on condom use offered (stio330)	0
Condom usage is demonstrated (stio331)	0
Advice on the treatment of the partner is provided (stio332)	24
Referred to the higher consultation (stio333)	6
Privacy was maintained (stio401)	47
Return date: min-max (in days) (stio334)	1-10
Consultation duration: min-ax (in minutes)	10-25

Analysis across the observation forms showed that none of the health workers observed conducted all appropriate STI screening manipulations, services, including treatment, referral, and counseling.

All clients observed were women. It may be a reason why a health care provider did not conduct any necessary counseling regarding condoms usage.

Two out of 17 (12%) STI cases the health worker diagnosed as colpomycosis, 5 (29%) cases as colpitis, 2 cases (12%) as endometritis, 1 case (6%) as bartholinitis, 1 case (6%) as bacterial vaginosis, 2 cases (12%) as erosion of the cervix, in 6 (35%) cases the illness was classified as adnexitis including some of those mentioned above.

As a rule the health care providers refer the patients only for one lab test, Gram Stain, and consult the patients in most cases having had the test. In 11 out of 17 cases observed the final treatment would not depend on further tests, and in 6 cases the final treatment would depend on further tests.

Fifteen clients with illness signs, which are most likely to be STI symptoms, were interviewed in target area. All 15 clients and all the health workers who conducted the consultations observed, were women.

The “genital discharge with foul smells” was mentioned 11 (65%) times as a reason for visit, “lower abdominal pain” was mentioned 9 (60%) times, “non-smelling genital discharge” was mentioned 2 (12%) times, “burning pain on urination” - 2 times (12%), “genital sores/ulcers” - 2 times (12%).

The health care worker in 47% of 15 cases informed the client on diagnosis classified, in 33 % - did not, and in 20% the client did not know/remember if/what she was told about the diagnosis.

In 13 out of 15 cases (87%) the health worker did not ask about last sexual contacts. In 93% the health workers said about the next visit, in 7% of cases they did not.

The respondents were asked about provider’s counseling/communication skills. All respondents (15 out of 15) reported that they felt comfortable when asking questions they had, but of them only 80% (12 out of 15) asked the health provider some questions, it might happen due to that fact that only those 12 clients understood everything the health provider said, and that 13 out 15 (86.7%) were certain about privacy maintained and confidentiality of issues discussed.

Clients’ knowledge about STI types was found as presented in the table below:

TABLE#. Proportion of Answers Given by the Clients on Types of STIs

Types of sexually Transmitted diseases	Percentage n=15
Gonorrhea	13
Syphilis	53
Chlamydia	0
Trichomonas	13
Herpes	0
Pubic lice	0
Candidas	0
HIV/AIDS	47
Bacterial vaginosis	0
Do not know	13

The data show that syphilis and HIV/AIDS are the best-known types of STIs (53% and 47%), gonorrhea and trichomonas are also respectively well-known types among all listed STIs.

When asked how they had been treated by the health care worker the respondents reported “well” and “very well”, 80% and 20% respectively, and how they had been treated by the other staff at the health facility, they reported “well” and “very well” in 93% (73% and 7% respectively) and “not very well/poorly” – in 20% of cases.

The respondents found the waiting time before the health worker receive them as “reasonable” in 73% of cases and in 20% of cases as “too long”.

In 47% of cases the clients paid for the consultation, in 47% they did not. The sum paid fluctuated from 5 to 150 soms.

Eighty percent of the respondents answered positively on question if they would come to that facility in future in case they have similar problems.

On the question what they would change in that health facility, the following answers were given by the respondents: 11 out of 15 reported that “they did not know”, 2 respondents mentioned “cost of the visit”, 1 respondent mentioned “the treatment”, 1 respondent mentioned “waiting time”, and 1 respondent “qualification of the doctor”.

Fourteen respondents (93%) reported that they have one partner and 1 respondent (7%) that she has more than one partner.

Conclusions

- The majority of the respondents have heard about STIs, but knowledge on STI signs and ways of prevention is very limited, especially amongst youth.
- A majority of primary health care providers use the syndrome approach, but have very poor counseling and communication skills.
- Most clients with STIs who were surveyed are not informed about their diagnosis and do not know types of STIs.

Recommendations

- Conduct an educational campaign on rising awareness on STIs issues using mass media and develop and distribute adequate brochures, posters and leaflets among the target population, with the special focus on youth.
- Develop and conduct educational classes on STIs issues at schools amongst teenagers.
- Conduct training amongst primary health care providers on RH related skills and in particular on WHO approach of STI case integrated management.
- Provide the health care facilities, within the scope of the project, with basic necessary instruments, supplies, medicines and lab kits.

Child Spacing

The child spacing issues were investigated among women and men of reproductive age and youth of 16-18 years old.

Of 300 women of reproductive age, 231 (77%) reported that they have children. The median age of the first birth was 21, and mean age was 21. Ninety percent (90%) of women gave the first births at the age between 18 and 25. Nineteen percents (19%) had the first delivery when they were younger than 20.

Knowledge on birth spacing period was investigated among the target groups. Ninety percent of women, 81% of men and 65% of youth surveyed mentioned period equal or longer than 24 months.

The data in the table below show that that 87% of female respondents and 81% of males ever had sexual intercourse, whereas only 6% of youth respondents reported that they ever had sexual intercourse.

Amongst those who ever had sexual intercourse 51% of females and 59% of male respondents reported that they use some contraceptive methods. As to youth respondents reported that they ever had sexual intercourse, 32% (6 out of 19) of them said that they use contraceptives.

The modern child spacing methods (excluding calendar, abstinence and withdrawal) are used by 44% of females and 50% of males. Five out of 6 youth respondents having sex contacts and using child spacing methods reported that they use pills (1 respondent) and condoms (5 respondents).

Thirty-nine percent (39%) of women and 50% of men surveyed reported that they use the method more than 6 month.

TABLE. Number of Respondents Using Child Spacing Methods

	Female (n=300) %	Male (n=300) %	Youth (n=300)
Ever had intercourse	87	81	6% (19 out of 300)
Number of current users of modern child spacing methods amongst those ever had sexual intercourse	44	50	83% (5 out of 6)
Length of usage of modern child spacing methods >5 months	39	50	Not investigated

The most popular among modern child spacing methods mentioned by the respondents was IUD: 71% of females and 61% of males cited IUD as a child spacing method used currently. Ten percents (10%) of women and 30% of men mentioned condoms as a child spacing method. As it was mentioned earlier condoms were most popular among sexually active youth population.

TABLE. Child Spacing Methods Currently Used by Females and Males of Reproductive Age, and Youth of 16-18 Years Old

	Female (n=134) %	Male (n=142) %	Youth (n=6) %
FP methods			
Skin implant/Norplant	0	0	0
Injection/Depo-Provera	2	0	0
Pills	2	2	17
IUD	71	61	0
Condoms	10	30	67
LAM	1	0	0
Withdrawal	11	7	0
Other	3	0	16

The reasons of non-usage of child spacing methods are reflected in the table below.

TABLE. The Most Frequently Mentioned Reasons for Non-Usage of Child Spacing Methods

	Females (n=262) %	Males (n=242) %	Youth (n=19) %
Not currently using family planning methods amongst those ever having had sex	49	41	68
Reasons of not usage:	Females (n=126) %	Males (n=100) %	Youth (n=13) %
Not having sex/not married	12	7	0
Infrequent sex	3	7	15
Breastfeeding	20	10	0
Wants more children	13	25	8
Pregnancy	16	11	8
Against using FP methods	3	10	0
Partner/others against	1	1	0
Religious factors	1	0	0
Do not know where to get	0	0	15
Contradictions	10	6	0
Health concerns	0	0	0
Expensive	0	0	0
Inconvenience	0	0	0
Menopause	7	3	0
Other	14	20	38

The table shows that for the females breastfeeding is the most frequently cited reason (20%) of not using child spacing methods. But, at the same time the LAM method was very rarely mentioned both by females and males (see the table above) as a child spacing method currently used. It means that even when a mother does not follow exclusive breastfeeding she considers it as a rather trusted method to postpone or avoid pregnancy.

“Pregnancy” and “wanting more children” are the other often mentioned reasons of non-usage of child spacing methods. “Not having sex/not married” and “contraindications” were mentioned in 12% and 10% respectively by female’s respondents.

As to male’s respondents, “wanting more children” was the most frequently mentioned reason (25%) of non-usage of child spacing methods. Breastfeeding and pregnancy were mentioned in 10% and 11% of cases respectively. Ten percents (10%) of men surveyed reported that they were opposed to the use of child spacing methods versus 3% of women who were against child spacing.

Forty-nine percent (49%) of women and 45% of men having sexual live reported that the decision on which child spacing method to use they make themselves or together with the partner.

The proportions of respondents listed at least two modern methods of child spacing were 70% of women, 54% of men and 23% of youth.

Seventy-seven percent (77%) of women, 56% of men and 45% of youth were able to name at least one appropriate place where to get child spacing methods.

Seventeen percent (17%) of women, 10% of men and 11% of youth surveyed reported that a health care provider visited them during the last 12 months and informed about modern child spacing methods.

Amongst 42% of women attended the health facility during the last 12 months the health care provider in half of the cases informed the women about modern child spacing methods. Eighteen percents (18%) of men and 22% of youth reported that they visited a health care facility, and that the health worker in 15% and 9% of cases respectively provided the respondents with the information on modern child spacing methods. In total, 21% of women, 3% of men and 2% of youth have received at least one child spacing counseling during the 12 months preceding the survey.

In accordance with HFA, Family planning Exit Interview, IUD was currently used by 5 out of 12 (42%) of women interviewed at the health facilities. Pills and injection were mentioned equally, 2 times (17%) each; condom and calendar method were mentioned 1 time each.

In 75% of 12 cases the health provider asked if the woman has any problems with the method used. When the women reported on having problem, in 100% of cases the health care providers discussed it and offered a solution. In 75% of cases the women discussed with the health providers the method they wanted to use. Seventy percents (70%) of women wanting to get a concrete child spacing method received it, 1 (10%) woman of those who did not receive the method reported that she changed her mind after counseling as the doctor said she would forget to take pills in due time, another woman reported about contraindications, and the third one reported that the method was not available.

Ten women out of 12 (83%) reported that they felt comfortable during the visit; 11 out of 12 (93%) asked the health care provider the questions and found that the health provider treated them well. Eighty-three percents (83%) of women reported they would come again to that health facility in future. Amongst reasons of choosing that health facility "the nearest" was mentioned most frequently (42%), reasons "like the staff" and "always come here" were mentioned in 25% of cases each, and "high quality services" in 8% of cases.

Fifty percents (6 out of 12) of women interviewed reported that the privacy was maintained during the counseling, 75% (9 out of 12) were sure that nobody could hear their conversation with health care provider, 58% (7 out of 12) have no doubts about confidentiality.

When asked if the health care providers explained how to use the methods, 50% of women interviewed reported yes. But, amongst those who received IUD nobody was able to explain how they should check the proper position of IUD inside the body. One of two women using pills could tell how to take pills, and 2 women using Depo-Provera said that the next injections should be received in three months. Eight women out of 12 (67%) reported that the health care providers discussed the next visit.

None of the health providers gave any information or educational materials to read at home (HFA, FP Exit Interview).

Fourteen child spacing consultations (14%) were observed (HFA, FP Consultation Observation). The results obtained are presented in the table below.

TABLE. Proportion of Health Care Providers Demonstrated Correspondent Skills during Child Spacing Counseling

Counseling Skills	n=14 %
Assure confidentiality	14
Ask open questions	64
Encourage to ask questions	50
Treat with respect	100
See in private	64
Discuss next visit	64
Ask about concerns with the method	50
Use a child spacing flip-chart	0
Use other visual aids	0
Give IEC reading materials to read at home	0
Record client in register	57
Review client's previous records	43

The table shows that in 100% of observations the observer found that the health provider treated the client with respect, in 64% of cases the health care providers asked open questions, counseled in private and discussed the next visit. In 50% of cases the health care providers encouraged the clients to ask questions and asked about their concerns. The client was registered in 57% of cases and her previous records were reviewed in 43% of cases.

Conclusions

- All respondents interviewed, and especially youth, showed lack of knowledge on modern contraceptive methods.
- Breastfeeding is one of the most frequently mentioned reasons of not using child spacing methods, even though the mother does not follow exclusive breastfeeding.
- Even though IUD is the most popular method of child spacing, the women do not know how to check the proper position inside the body.
- The targeted populations rarely receive information on modern child spacing method during a year.
- Observation of child spacing consultations revealed absence of visual aids and educational/information materials on child spacing methods for distributing among the clients.

Recommendations

- Improve knowledge on modern child spacing methods amongst targeted population (mode of usage, advantages and disadvantages, side effects etc.).
- Promote LAM as a natural child spacing method harmless for women health and reliable if use properly.
- Develop and distribute adequate information/educational materials among the population with special focus on youth.

Health Contacts and Sources of Health Information

Investigation of the most appropriate health informants of the population of the target area produced interesting data presented at the Tables A, B, C. The health care workers in more than 80% of cases did not provide the population served with any health messages. One of the reasons is that, as it was mentioned earlier, the target areas suffer from significant deficiency of both doctors and mid-level staff, such as nurses, midwives and patronage nurses. Also, in the most cases they do not have any information materials available that could be distributed among the population.

Nevertheless, for females and male the health care workers are the most frequently mentioned persons who brought the health information during the last month. This could be explained by the fact that the health care workers visit the family after a women gave birth to make patronage, or to notify about vaccination day, or they come to collect some statistical data on the request of the higher level of MOH (for example, population served - that number fluctuates due to large migration process). They also occasionally visit those patients who are seriously ill and not able to come to the health facility by their own.

Only females mentioned the social patronage workers as a source of health information (11%).

The village activists were the most frequently mentioned by the youth as a source of health information (27%). As the “village activists” included schoolteachers and other pedagogues, that means that the teachers can play significant role in delivering health messages to youth.

Traditional healers as a health information source for youth were on the second place by frequency (15%). Compared with data obtained from female and male respondents (0% and 1% respectively) it can be concluded that youth, compared with other target groups, get information from non-formal sources.

All the respondents mentioned religious figures and NGO workers very rarely as a health information source.

TABLE A. Frequency of Health Contacts During the Month Preceding the Survey/ Females of Reproductive Age

Source of health messages	Frequently %	Sometimes %	Never or don't remember %
Doctor	2	11	87
Nurse/Midwife	4	16	80
Visiting nurse	5	12	83
Social patronage	0	11	99
NGO Workers	0	0	100
Village activists	0	3	97
Traditional Healers	0	0	100
Religious figures	1	0	99

TABLE B. Frequency of Health Contacts During the month Preceding the Survey/ Males of Reproductive Age

Source of health messages	Frequently %	Sometimes %	Never or don't remember %
Doctor	2	7	91
Nurse/Midwife	3	6	91
Visiting nurse	1	7	92
Social patronage	0	0	100
NGO Workers	0	0	100
Village activists	2	4	94
Traditional Healers	0	1	99
Religious figures	1	2	97

TABLE C. Frequency of Health Contacts during the Month Preceding the Survey/ Youth 16-18 Years Old

Source of health messages	Frequently %	Sometimes %	Never or don't remember %
Doctor	1	9	90
Nurse/Midwife	2	12	86
Visiting nurse	0	3	97
Social patronage	0	0	100
NGO Workers	0	2	98
Village activists	4	27	69
Traditional Healers	1	15	84
Religious figures	1	1	98

The TABLE D below presents the results on the types of information channels for health information delivery for the targeted population.

For all respondents surveyed the television was the main source of health information (more than 60%).

The radio was also named as a health information source by significant part of the respondents and mostly by males (21% comparing with 15% of females and 17% of youth).

Newspapers occupy the third place as a health information source mentioned. Brochures, posters and leaflets are mostly known amongst youth (10%, 10% and 7% respectively).

Public meetings as a health information source were mentioned rather rarely.

TABLE D. Different Sources of Health Information during the Last Month: Females and Males of Reproductive Age, Youth 16-18 Years Old

Health Information Channels	Females %	Males %	Youth %
Radio	18	21	17
Newspapers/magazine	15	12	15
TV	62	62	60
Brochures	5	3	10
Posters	4	4	10
Leaflets	3	3	7
Public Meetings	4	4	3

Conclusions

- The primary health workers rarely provide the population they serve with health information.
- The social patronage and NGO workers usually do not deliver any health messages to people.
- Youth prefer to get health information from non-formal sources such as village activists and traditional healers.
- Television, radio and newspapers are the most popular channel delivering health messages to people of target area.
- Brochures, posters and leaflets rarely deliver health messages, evidently being in deficiency.

Recommendations

- Develop support groups (may be those from NGOs, teachers or social patronage workers) in the target area and train them as health information distributors.
- Develop and broadcast amongst target population key health messages according to the CS Program goals and objectives.
- Develop and distribute through trained persons appropriate brochures, posters and leaflets amongst the population.
- Use video spots at schools and other public places like rural cinemas.
- Organize public contests involving population at large.

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