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REPRODUCTIVE AND CHILD HEALTH SERVICES IN ARMENIA

Baseline Assessment of Primary Health Care Facilities in
Tavush and Shirak Marzes



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Tavush and Shirak Marzes

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III. LIST OF ABBREVIATIONS

ANC	Antenatal care
EMG	Emerging Markets Group
FAP	Feldsher acoucher post (Russian)
FP	Family planning
GOAM	Government of Armenia
HC	Health Center
HIV/AIDS	Human immunodeficiency virus/Acquired immuno deficiency syndrome
IC	Infant care
MA	Medical Ambulatory
MOH	Ministry of Health
MCH	Mother and Child Health
Ob/gyn	Obstetrician/gynecologist
PC	Polyclinic
PHC	Primary health care
PI	Performance improvement
PMP	Performance management plan
PP/IC	Postpartum/Infant care
PP	Postpartum
RH	Reproductive health
SPSS	Statistical Program for Social Sciences (software packet)
STI	Sexually transmitted infection
WC	Women's consultation
WHO	United Nations World Health Organization
USAID	United States Agency for International Development

IV. EXECUTIVE SUMMARY

The United States Agency for International Development (USAID) awarded Emerging Markets Group (EMG), an international consulting firm, the five-year, seven million US dollar contract to support the Republic of Armenia's efforts to improve reproductive and child health services nationwide for people living in rural areas. The project builds on the successes achieved over the past three years by PRIME II, the USAID-supported maternal and child health pilot project in Lori Marz.

Data from independent surveys and government health statistics indicate special concerns for reproductive and child health care, and the government of Armenia is particularly committed to improving the health status of women and children. While most of Armenia's major health indicators such as infant and maternal mortality are similar to those of other former Soviet states, they are far worse than their European neighbors, and vary substantially between urban and rural areas. The situation in rural areas is considerably worse than in the cities. Rural women do not receive adequate prenatal care, there is a tendency for some women to deliver at home. Abortion continues to be the main method of fertility control, while modern contraceptive use has declined in recent years. Infant mortality, particularly in the perinatal period, is reportedly increasing.

Project NOVA seeks to address these issues by improving the quality of 90% of the rural facilities offering basic reproductive and maternal healthcare in Armenia. The project works intensively in two to three marzes per year over the life of the project. Initial activities are taking place in Shirak, Lori and Tavush Marzes. The four main strategic components of the project are:

- Improving reproductive health (RH) and maternal and child health (MCH) knowledge and clinical skills for rural primary health care (PHC) providers, and providing basic PHC medical equipment and supplies to support program activities.
- Developing the capacity of regional health managers to improve the management and supervision of rural facilities.
- Accelerating the momentum of reform in the health delivery system to be more responsive to the reproductive and child health needs of the population.
- Increasing consumer demand for high-quality RH/MCH services through community education and mobilization activities.

The assessment serves to establish baseline values for most of the key indicators in the project performance management plan (PMP). The PMP outlines those expected results in each of the four project components and how the project will seek to measure those results over time. The baseline assessment also provides the project with information from which to best target program interventions.

The baseline assessment was conducted as a part of Project NOVA activities in two program marzes: Tavush and Shirak. Another program marz, Lori, was not included since the data on

baseline condition was obtained in May 2004 as a part of the final evaluation of PRIME II project in Armenia.

The performance of all PHC providers, both nurses/midwives and physicians has room for improvement. An average PHC provider conducts one-third to one-half of standard tasks in the program care areas: antenatal care (ANC), postpartum/infant care (PP/IC), counseling on sexually transmitted infections (STI) and family planning (FP). Very few providers actually performed to the standard level of 85% of necessary items. Among items which were performed rarely by nurses and midwives some are elementary, like washing hands with soap, explaining the purpose of the session, exploring pulse rate, temperature. For ANC, physicians scored more on all items except “thanks client for her time.” The difference in PPC performance scores between physicians and nurses was a slight one – only two percentage points. Two other areas, FP and STI care, were completed only for physicians, and the performance scores were between 35% and 40%.

Generally, obstetrician/gynecologists (ob/gyns) performed better in RH than all other specialists. This trend is noticed through all four types of performance examined within the study framework. According to the study, the main areas for improvement are the counseling skills and general clinical examination skills. The other two areas: client-provider interaction and set of skills specific to reproductive health, showed comparatively better results.

There is also a lack of necessary equipment and supplies, especially at the health posts (also referred to as FAP – feldsher acoucher post). The basic list of equipment and supplies is completed only to an average of one-third at FAPs. The condition of higher level facilities (polyclinics, medical ambulatories, health centers) is slightly better, but far from perfect. There was a lack of not only still seldomly found glucometres and pregnancy tests, but also a shortage of more common for local PHC facilities items, like stethoscopes, infant scales.

Communication between service providers and clients is poor, though the clients seem to be by and large satisfied both generally by the service quality and by various aspects of the service (such as level of privacy): vast majority of clients (more than 85%) were satisfied with the privacy of the visit and attitudes of the serving provider and other staff. The confidentiality factor gained less assurance – two-thirds of clients felt the shared information would remain confidential. However, the objective criteria of quality of service provision suggest that clients’ impression may not be a sufficient criteria for an estimate of the performance.

The client load of an average facility remains very low, even considering a low birthrate in the country and high density of health posts relative to population. Major reason for the low level of attendance remains unwillingness of pregnant women to visit medical facilities frequently enough due to the remoteness of higher level facilities and high payments for care.

Interviews with clients showed among other findings that the payments for all RH services are very common, with payments for deliveries almost compulsory. The costs of deliveries and other RH services were relatively high considering low level of income in rural settings. A possible reason contributing to high payments is general unawareness of the RH services provided free of charge.

The nature of relations between community and the medical facility showed dependence on the personality of both village provider and local authority representatives. Due to complicated nature of informal relations between community, authorities and rural health providers there is a need for a further on-going qualitative assessment in each rural setting, in which the intervention is planned.

The reasons for low performance vary and generally are expected. However, the statistical tests suggest which factors influence performance. Generally, PP/IC performance was found to be more sensitive to the various performance factors that ANC performance. The incentives provided by supervisor were found to be very important. Despite a common belief, salary increase was not a significant factor affecting performance as opposed to verbal incentives, and provision of opportunity for training.

Previous similar before and after assessments by IntraHealth suggest that all the mentioned factors may be successfully improved given a multi-sided approach to increasing quality and access to care.

V. STUDY METHODOLOGY

The overall methodology of the assessment is based on the experience of the previous assessments of Prime II, in particular, on the baseline assessment and performance factors special study, both conducted in August 2002; the baseline assessment of supportive supervision practices, conducted in September 2003; the baseline assessment of RH, providers performance and performance factors, conducted in Nigeria in February 2003; the baseline assessment of PHC physicians in RH, conducted in October 2003; and the PRIME II Armenia final assessment, conducted in May 2004.

In accordance with the project Performance Management Plan, the monitoring and evaluation activities of Project NOVA begin with a full survey of all primary health care facilities in each target marz. The assessment findings help target interventions to those communities and facilities in most need. Approximately six months following intensive implementation in each marz, a sample of PHC facilities will also be assessed to determine impact of project activities on the quality and accessibility of services.

The specific objectives of the study are summarized as follows:

- a) To assess the performance of primary health care providers (nurses and midwives) in antenatal, postpartum and infant care fields in the facilities (FAPs, medical ambulatories, health centers).
- b) To assess the performance of primary health care physicians offering RH services in the fields of antenatal care, postpartum and infant care, counseling and treatment of sexually transmitted infections, and counseling on family planning.
- c) To explore the utilization of RH services, through extracting data on the flow of clients in PHC facilities.
- d) To explore environmental and physical working conditions of rural PHC facilities.
- e) To explore the strength of ties between rural communities, local government authorities and medical facilities.
- f) To explore the attitudes of clients towards various aspects of reproductive health.

Accordingly, a total of 12 instruments were used for the purpose of data collection. Most of these instruments were adapted from previous forms used under PRIME II Armenia, while a few of them were developed specifically for Project NOVA. The actual number of received responses by instruments can be found in Table 1.

Sampling

The sampling list included all primary health care or outpatient facilities offering RH/MCH services at any level. In each facility, all ob/gyns and family physicians working in PHC sites were sampled and observed by all four areas of performance¹. Internists (also referred to as terapefts) and pediatricians working in those medical ambulatories and health centers, which did not have ob/gyns and family physicians among staff, were observed for all four performance areas. Then, physicians of each profile were selected for observation of delivery of specific relevant type of care:

¹ Few physicians refused to participate in observation of family planning care and STI counseling, which explains slight differences in the numbers of observed providers by type of care.

pediatricians in all facilities were observed for the delivery of PP/IC, venerologists – for the delivery of STI care.

All auxiliary providers (nurses, midwives and feldshers), who provided RH services, were observed during the delivery of ANC and PPC. These providers were also interviewed for their perspectives on such issues as previous training, working conditions, supervision and motivational factors. Nurses and midwives who work in polyclinics and women consultation centers were not included based on the assumption that they do not deal with the ANC and PP/IC clients separately from physicians.

For client interviews, the sampling technique used was stratified random proportionate sampling allowing for sample representativeness error equal to 4.7%. Given the very small number of regular clients in rural PHC facilities, the study sampled clients independent from the facility sampling unit.

Fieldwork

The main part of the fieldwork took place in the period between 22 December, 2004 and 19 January, 2005, with the exception of the client interviews, which took place from 9 to 16 March, 2005. A total of 31 data collectors participated in the study, of which three performed the roles of fieldwork supervisors, 10 clinical data collectors (physicians), 13 data collectors, three community data collectors, and two quality control persons. Three day training for data collectors took place prior to the fieldwork, covering topics related to the validity and relevance of the collected data, main principles of the data collection, contents of the instruments, role-plays, and administrative issues.

Instruments

The Table 1 below presents the instruments used in the study, provides a brief description of the instrument, its qualitative or quantitative nature, and the actual number of units observed. It also gives details of the target group and explains the details of sampling in each case.

Table 1. Instruments and sample size

n	Instrument	Details of the instrument	Target group	Sample size
I	Observation of antenatal care visit	A quantitative observation checklist consisting of 44 routine actions, intended for measurement of performance of a PHC provider during an ordinary antenatal care visit	Ob/gyns	29
			Family doctors	16
			<i>Terapefts (only in case if there is no ob/gyn or family doctor in a facility)</i>	18
			<i>Pediatricians (only in case if there is no ob/gyn or family doctor in a facility)</i>	2
			Nurses, midwives (in FAPs, MA, HC)	196
II	Observation of postpartum and infant care visit	A quantitative observation checklist consisting of 44 routine actions, intended for measurement of performance of a PHC provider during an ordinary postpartum and infant care visit	Ob/gyns	29
			Family doctors	16
			<i>Terapefts (only in case if there is no ob/gyn or family doctor in a facility)</i>	12
			<i>Pediatricians(only in case if there is no ob/gyn or family doctor in a facility)</i>	71
			Nurses, midwives (in FAPs, MA, HC)	222
III	Observation of sexually transmitted infections care visit	A quantitative observation checklist consisting of 29 routine actions, intended for measurement of performance of a physician working in PHC facility during an ordinary sexually transmitted infection counseling visit	Ob/gyns	28
			Family doctors	14
			Venerologists	4
			<i>Terapefts, Pediatricians</i>	2
IV	Observation of family planning care visit	A quantitative observation checklist consisting of 49 routine actions, intended for measurement of performance of a physician working in PHC during an ordinary family planning counseling visit	Ob/gyns	25
			Family doctors	14
			<i>Terapefts, Pediatricians</i>	3
V	Provider Questionnaire	A standardized questionnaire aimed at exploring the significance of select provider performance factors with a focus on supervision. Consists of the following sections: knowledge and skills, supervision, management, environment, biodata.	Nurses, midwives	235
VI	Client Record Review	A checklist aimed at exploring the number of clients at PHC facilities during the period from October, 2003 to September, 2004.	Facility	166
VII	Inventory	A standardized checklist aimed at reviewing the standard minimal equipment, containing five sections: standard equipment, optional equipment, written guidelines, infrastructure, medical supplies.	Facility	165
VIII	Mapping instrument	A standardized questionnaire containing basic questions about given rural community's infrastructure and communication.	Rural communities with medical facilities	176

n	Instrument	Details of the instrument	Target group	Sample size
IX	Client Interview Form	A standardized questionnaire aimed to determine clients' perception of quality of services and verify performance observation data	PPC clients of facilities located in villages and small towns (except Gyumri and Ijevan)	150
X	Community interview	Semi-standardized questionnaire aimed at exploring the relations between the local government authorities, provider and community	Village mayor in a community with FAP	110
XI	Community interview	Semi-standardized questionnaire aimed at exploring the relations between the local government authorities, provider and community	Provider in a community with FAP	100
XII	Community interview	Semi-standardized questionnaire aimed at exploring the relations between the local government authorities, provider and community	Community member (school principal) in a community with FAP	111

A total of 144 physicians delivering RH care were observed, and 239 auxiliary providers (nurses, midwives and feldshers) were observed and interviewed. A total of 166 facilities participated in the study. The Table 2 below presents the number of providers observed with breakdown by facility type and marz. Low number of venerologists observed is due to the fact that in Shirak marz all venerologists work in the dispensaries, which are considered secondary level facilities, and, accordingly, were not included in the study.

Table 2. Number of observed providers by type and site

Specialization	Shirak Marz			Tavush Marz			Total
	PC	MA/HC	FAP	PC	MA/HC	FAP	
Ob/gyn	17	4	--	9	2	--	32
Family Doctor	10	2	--	--	7	--	19
Venerologist	--		--	4	--	--	4
Pediatrician	33	11	--	22	6	--	72
Terapeft	--	6	--	--	8	--	14
Total	60	23	--	35	23	--	141
Nurse	--	31	104	--	27	46	208
Midwife	--	10	10	--	6	5	31
Total	--	41	114	--	33	51	239
Total	60	64	114	35	56	51	380

Table 3. Number of facilities by location and type

	Shirak Marz	Tavush Marz	Total
Polyclinic/Women Consultation	10	4	14
Health Center/Medical Ambulatory	14	16	30
FAP	85	37	122
Total	109	57	166

Data management and analysis

Once completed instruments were reviewed for accuracy, three data operators entered the information into formatted data files using SPSS 13.0. To ensure clean data entry during the data entry process, the study coordinator conducted range and consistency checks and double entry of a sample of data.

After the data were entered and checked, the frequencies of all individual questions were run for each quantitative instrument. Where appropriate, data was disaggregated by different characteristics, usually by provider type (nurse, midwife, feldsher), type of facility (polyclinic/women's consultation, health center/rural ambulatory, and health post), or marz.

For the observation checklists, individual average performance scores for each item in the observation checklists were studied to determine relative strengths and weaknesses with particular tasks. Items were summed (with equal weights) to produce a total score of all possible items, to arrive at achieved overall performance of providers.

Further analysis was conducted to build a model of association between the performance of nurses/midwives/feldshers and the factors. First, the data sets for the observation checklists and the performance factors questionnaire were merged, based on common identifier(s). Data were analyzed to ensure that there were not significant within group differences between type of cadre and by type of observed client (real/simulated). No significant differences were found. The data sets were merged into one file and all additional calculations were made on that file.

VI. RESULTS

1. PROVIDER PERFORMANCE

This section is devoted to the results of the observation of real practices of various types of care. The performance of PHC providers is an important target towards which Project NOVA is directing its efforts. The performance score is received on the basis of real-case or simulated visit observation of interaction between the provider and client.

Table 4. Demographic characteristics of nurses/midwives by type of facility

	Mean age	Years as provider	Years in current workplace	Percent Married
HC/MA	42.9	19.8	15.3	84.3%
Health Post (FAP)	42.4	20.2	14.3	85.5%
Total	42.5	20.1	14.6	85.1%

Average age of nurses and midwives in target marzes was 42 years old with 20 years of average work experience. The data showed practically no difference between demographic characteristics of providers working in rural FAPs and those working in MAs and HCs. Only years of experience and age of the provider proved to be significant factors affecting performance of nurses and midwives in PP/IC. Other demographic characteristics were found not significant in relation to any performance area.

Performance measurement, assumptions. The main tool for measuring performance used by the project is observation of real practice in the main reproductive and infant health care service components: antenatal care, postpartum/infant care, sexually transmitted infections care and family planning. For all four services, there is a list of tasks that are considered necessary for provider to perform during a typical visit. The development of the task lists, or checklists, was guided by practices recommended by World Health Organization as well as existing national government norms of relevant specialties.

During the field work, providers were asked to conduct a standard care visit – to do the things they usually do. A number of providers refused to be observed for certain services stating that they do not offer a particular service and therefore are unwilling to be assessed.

As it was mentioned before, the study uses assumption that there is a minor difference between a real-case visit and a simulated visit. The significance tests run showed that there indeed was a difference though a not significant one.

Table 5. Difference in performance scores by type of care and type of provider

		ANC		PPC		STI		FP	
		Mean (%)	N	Mean (%)	n	Mean (%)	n	Mean (%)	n
Real case	Nurses	35.0	36	33.5	42				
	Physicians	53.4	12	30.3	7	43.5	1	68.2	1
Simulation	Nurses	33.4	160	37.7	177				
	Physicians	50.5	52	39.7	120	39.8	47	34.5	41

The performance scores differed by 1-2 percent for ANC and PPC, both for physicians and nurses/midwives. For the STI and FP types of care, the number of real-case visits was extremely low, the main reason being clients refusing to be observed during counseling on sensitive topics. Thus, the difference in these areas is not significant either, despite differences in performance scores.

Table 6. Average performance scores for physicians observed by type of performance

	ANC	PPC/IC	STI	FP
Ob/gyn	57.6%	37.6%	50.9%	46.1%
N	29	29	28	25
Family doctors	50.9%	46.6%	20.5%	20.8%
N	16	16	14	14
Venerologists	--	--	43.3	--
N	--	--	4	--
Terapefts	44.1%	39.3%	12.8%	14.8%
N	18	12	1	2
Pediatricians	37.5%	37.5%	17.6%	7.4%
N	2	71	1	1
Average (weighted)	51.6%	38.8%	39.9%	35.3%
N	65	128	48	42

Generally, performance scores showed expected results: the average number of implemented tasks are between one-third and half of the relevant tasks for each type of care. The detailed percentage of performance by each item for all four performance areas by type of provider can be found in the appendices (Table 42 and others).

In all four performance areas ob/gyns demonstrated the highest scores. The reason for marked leadership of ob/gyns is not only the level of training and experience, but also understanding of what constitutes the roles and responsibilities of providers of a given specialty.

The only exception is PP/IC, where ob/gyns performed slightly worse than family physicians. Many family physicians in Armenia were originally trained as pediatricians, and understandingly they perform best in the field of their pre-service education. In facilities where both a family physician and an ob/gyn work, the role division between these providers goes along the line of difference between antenatal care and integrated postpartum/infant care.

Most pediatricians and *terapefts* working in facilities without ob/gyns and family physicians among the permanent staff, were reluctant to participate in the study in the areas of STI and FP and refused to be observed with the argument that they are not in the position to deliver these services. Only a small number of pediatricians and *terapefts* participated in the STI and FP observations. One might conclude that others in these particular specialties might not perform much higher than those who did participate in the assessment given their lack of previous training or experience. However, it also important to recognize that in rural areas where ob/gyns and family physicians are not present, these providers are often forced to offer some level of care in these service areas.

Table 7. Percent of providers performing to performance standard (85%)

	ANC	PPC/IC	STI	FP
Ob/gyn	3.4%	0.0%	0.0%	0.0%
n	1	0	0	0
Family doctors	6.3%	6.3%	0.0%	0.0%
n	1	1	0	0
Venerologists			0.0%	0.0%
n			0	0
Terapefts	0.0%	0.0%	0.0%	0.0%
n	0	0	0	0
Pediatricians	0.0%	0.0%		
n	0	0		
Average (weighted)	3.1%	0.8%	0.0%	0.0%
N	65	128	48	42
Nurses/midwives	0.0 %	0.5%	--	--
N	196	220	--	--

Typically, a standard benchmark for minimum acceptable performance is set at the level of 85%. It is assumed that the provider who conducts 85% of the designated tasks, is able to perform his/her duties to the acceptable standard. Setting a benchmark score allows to have a precise target while conducting the training and quantify the number of providers who achieved the requested level of performance. This indicator was included in the Project NOVA Performance Management Plan, and thus is one of the important indicators measuring the success of the project.

The results demonstrated that medical staff in the regions is not prepared enough to offer services at these minimum standards as defined in this study. Among physicians only three specialists achieved the requested score: two in antenatal, and one in postpartum/infant care. Only one nurse performed to the benchmark score (out of 406 observations).

Table 8. Average performance scores for nurses/midwives by marz and type of performance (incl. significance tests)

	ANC	PPC/IC
Shirak	35.3%*	37.5%
n	136	145
Tavush	30.3%*	34.3%
n	58	77
Average	33.8%	36.4%

* Significant at 0.05 level

** Significant at 0.01 level

Table 8 shows the average performance scores for nurses and midwives differentiated by marzes. General performance is at expected levels given previous similar studies in Armenia – taken average by marz, one-third of the tasks accomplished. The nurses and midwives were better prepared in Shirak than in Tavush, and in the field of ANC the difference is even significant at 5% level.

Table 9. Average performance scores for nurses/midwives by type of facility and type of performance (incl. significance tests)

	ANC	PPC/IC
HCs/MAs	36.4%	36.6%
n	46	62
FAPs	32.9%	36.3%
n	148	160
Average	33.8%	36.4%

The Table 9 shows the difference between performance of nurses and midwives working at different facility levels. As it was mentioned before, the nurses working in relatively larger facilities were not included, given that they are usually not empowered to accept clients on their own. The results correspond to the expectations generally. There is a substantial difference with the baseline results attained during the PRIME II baseline assessment in the PP/IC score. The 2002 average PP/IC score was 51.3% while this year it is 35.4%. This difference can be explained by the increased sensitivity of the tool: the more recent version of the checklist contains 44 actions compared to 32 in 2002.

Performance in Different Aspects of Care

The comprehensive list of tasks does not allow for a detailed analysis of different types of skills. It serves as a good guide for measuring changes in overall performance, but allows little space for comparing different sets of skills. The observation checklists were then further subdivided into skills sets deemed important, including: client-provider interaction (CPI), counseling skills, clinical examination skills, and skills specific to reproductive health.

Table 10. Distribution of means of grouped average ANC performance scores by marz

	Nurses			Physicians		
	Shirak (n=136)	Tavush (n=60)	Total (N=196)	Shirak (n=43)	Tavush (n=22)	Total (N=65)
CPI (10 items)	43.7%	38.4%	42.1%	63.0%	55.0%	60.3%
Counseling (9 items)	22.7%	17.8%	21.2%	29.7%	32.8%	30.7%
Clinical (15 items)	34.9%	30.9%	33.7%	52.3%	57.1%	53.9%
RH specific (10 items)	40.8%	35.7%	39.3%	60.5%	57.7%	59.5%
Average performance score	35.3%	30.3%	33.8%	51.9%	50.8%	51.6%

Table 11. Distribution of means of grouped average PP/IC performance scores by marz

	Nurses			Physicians		
	Shirak (n=143)	Tavush (n=77)	Total (N=220)	Shirak (n=79)	Tavush (n=49)	Total (N=128)
CPI (10 items)	46.9%	39.9%	44.4%	57.1%	45.5%	52.7%
Counseling (10 items)	36.6%	34.9%	36.0%	39.5%	34.2%	37.5%
Clinical (7 items)	23.1%	16.4%	20.8%	25.8%	18.1%	22.8%
RH specific (17 items)	39.4%	39.3%	39.3%	39.6%	35.7%	38.1%
Average performance score	37.5%	34.3%	36.4%	41.4%	34.8%	52.7%

Both clinical services showed comparable results. The strongest area for nurses was the client-provider interaction (42% for ANC and 44% for PP/IC), which was followed by RH specific skills (39% for both areas). The set of clinical skills was around average for ANC and was much lower than the average score for PP/IC. The opposite situation is with counseling items, which were the weakest in ANC and around average for PP/IC.

The comparison with physicians' performance scores showed the same weak area for improvement in ANC – counseling skills. To be more specific, this area includes among others the following items: orients woman on the delivery place (in case of 28 weeks and older), orients woman on management of common pregnancy-related afflictions, orients woman on sexual life during pregnancy. This area seems to be the weakest among the mentioned ones for both ANC and PP/IC. Also, the clinical skills for PP/IC received a notably lower score compared to other areas.

2. PERFORMANCE FACTORS

This section is devoted to the relation between performance of providers and the factors that may or may not affect the level of their performance. The analysis is based on the Performance Improvement conceptual framework adapted by PRIME II from the field of human performance technology. There are five performance factors: knowledge and skills, clear expectations, motivation and incentives, appropriate feedback, and environment and tools. These areas are covered by different tools which were used in the study: performance factors questionnaire, equipment and supplies inventory, client interview, and others. The tables below are devoted to the results of the performance factors questionnaire.

Table 12. Reported presence of performance factors: knowledge and skills

Performance Factor	Shirak marz	Tavush marz	Total
	n= 150	n=85	N=235
Percent of providers who have not received training	16.0%	13.1% (84)	15.0% (234)
Use of knowledge/skills	84.0%	100% (73)	89.2% (223)
Do you think you have the knowledge or skills necessary to perform all your responsibilities?	98.6% (146)	83.3% (78)	93.3% (224)
Do you think you need an additional training?	83.2% (149)	83.5%	83.3% (234)

The most striking figure is the low percentage of providers who have never received a post-education training in RH – a total of 85% received training in different areas of RH. To compare, only 60% of primary level providers responded the same way in 2002. The difference is explained not only by slight changes in methodology², but also by increased participation of local and international organizations in the delivery of various trainings in RH to the PHC providers. However, irrespective of the fact that majority of providers were trained over the last few years, more than four-fifths of them still feel they need additional training.

² In 2005, PC auxiliary providers were not included in the study.

Table 13. Reported presence of performance factors: job expectations

Performance Factor	Shirak marz	Tavush marz	Total
	n= 150	n=85	N=235
Do you have a written job description for this job?	14.8% (142)	7.7% (78)	12.3% (220)
Showed job description (out of those who reported to have job descriptions)	90.5% (21)	25.0% (8)	72.4% (29)
Percent of providers having no guidelines or other written materials	0.7%	1.2%	0.9%

The job expectations section revealed a very low number of providers who are actually aware what is the exact description of their rights and responsibilities: only 12% responded positively to the question about having a written job description, and even less actually showed the job description. The situation was markedly better in Shirak marz than in Tavush with the difference as high as twice.

This study question encompassed all possible written materials and guidelines, thus making the question quite elaborative, including protocols, guidelines and other written materials. Thus, we received very few responses for not having any written materials at all – any facility had at least one of the mentioned materials. The most commonly used ones were general literature (91%), guidelines (79%) and posters (77%) (see Table 46 in Appendices).

Table 14. Reported presence of performance factors: motivation and incentives

Performance Factor	Shirak marz	Tavush marz	Total
	n= 150	n=85	N=235
Have you had bonuses or raises in your salary within the last 3 years?	75.0% (148)	89.3% (84)	80.2% (232)
Providers receiving bonuses and raises due to good performance (out of all)	7.4% (148)	10.3% (78)	8.4% (226)

The situation with the motivation and incentives is mixed. Though there is an impressive share of people who actually received a salary raise or bonuses within the last three years³, very few of them actually felt that it is due to their good performance. The situation is different with other incentives reviewed in the study.

The most popular incentive coming from a supervisor is verbal recognition - most providers find that they receive it regularly in case of good performance. The least used incentive is monetary, which is not surprising given the centralized system of funds distribution. The topic of effect of motivation on provider performance is elaborated in the succeeding parts.

³ Providers responded positively to this question also in the case of having received a higher amount of money than usually, e.g. in case of higher load of clients, or promotion, or extension of responsibilities

Table 15. Distribution of unofficial payments by marz (on the scale from 1 to 4, where 1 corresponds to “always” and 4 – to “never”)

	Shirak	Tavush	Total
Mean	3.23	3.30	3.26
N	150	84	234

The study is based on the assumption that the quality and the nature of the supervision is one of the basic characteristics that influence how well the provider is doing his/her job. Therefore, a considerable section of the questionnaire is devoted to the relations between the provider and the supervisor.

Table 16. Reported presence of performance factors: organizational support

Performance Factor	Shirak marz	Tavush marz	Total
	n= 150	n=85	N=235
Has your supervisor ever given you orientation towards:			
Organizational structure of the marz health care system	85.2% (142)	67.1% (82)	78.8% (231)
Reporting lines of authorities	86.0%	83.1% (83)	85.0% (233)
Organizational behavior	99.3% (149)	100.0%	99.6% (234)
List of your duties, rights and responsibilities	98.0%	94.1%	96.6%
Ability to influence decision making	70.0%	56.5%	65.2%
Usual length of a visit	2.4 hours	3.3 hours	2.7 hours

The first question in the supervision section is about the orientation the supervisor has provided. The study showed that the clearer understanding of the work settings is in the field of the organizational behavior and discipline. Vast majority (more than four-fifths) answered positively also to the rest of the subquestions: reporting lines, list of the duties. Around one-fifth did not receive information on the organizational structure of the marz health care system. Also, among inspiring results is that a significant share of the providers population feel that they are able to influence the decisions made about the facility and care.

Table 17. Reported presence of performance factors: supportive supervision visits

Performance Factor	Shirak marz		Tavush marz		Total	
	Mean	n	Mean	n	Mean	N
Average number of supervisor’s visits done to a FAP within the last two months	2.8	115	2.3	46	2.7	158
Average number of supervisor’s supportive visits done to a FAP ⁴ within the last two months	1.4	72	1.1	28	1.3	100

The interview results showed a high average number of supervisory visits to FAPs conducted in target marzes. According to nurses, supervisor visited a FAP almost three times within the last two months. At the same time, 25% FAPs were not visited by supervisors at all. The number of visits was visibly higher in Shirak. A remarkably high dispersion in number of visits across different providers is explained by the general lack of regulation in the field of supervision visits to FAPs.

⁴The extreme values were excluded from calculations: the values showing more than 10 visits per provider disproportionately influenced the mean results.

The suggestion on the frequency of visits newly introduced by MOH are rarely enforced and followed by facility management. Thus, it is not surprising that while a quarter of facilities were not visited during the last two months, 7% FAPs were visited ten times and more.

At the same time, the number of visits that the study defined as supportive was comparatively low. The estimate of the nature of supervision visit was done on the basis of eight questions which included performing administrative tasks, working in the clinic with nurse, etc. (see interview form in the appendices). The average calculation reached 1.3 visits for the last two months, which still is higher than expected.

Table 18. Reported presence of performance factors: provider self-assessment (on the scale between 1 and 4, where 1 is excellent, and 4 is very bad)

Self-assessment question	Shirak marz	Tavush marz	Total
How would you evaluate your relations with your supervisor	1.5	1.6	1.5
Your relation with the community.	1.4	1.6	1.5
The level of your professional development.	1.8	1.9	1.8
Your willingness to work	1.5	1.7	1.6
Your relation with the colleagues	1.3	1.3	1.3

In order to ascertain the providers’ self-evaluation of their general performance, providers were asked to assess the quality of five different work-related parameters on the scale between “excellent” and “very bad”. Average values of all criteria lie between “excellent” and “very good”, with some closer to “excellent”, and some to the “very good”. In relative terms, the best estimate was given to the relations with the colleagues (1.3), and relatively worst – to the level of the respondent’s professional development (1.8).

Providers were also offered two questions related to their self-esteem as a professional. The general results are inspiring – majority of providers assessed themselves higher than average. The observation is that it does not always correspond to the real performance levels, be it conditioned by service utilization, existence of equipment or knowledge and skills. However, a high level of confidence can be considered a pre-requisite for an effective application of acquired knowledge.

Table 19. Reported presence of performance factors: provider self-assessment of performance and proposed supervisor’s evaluation of performance

	Mean	Mode	Pearson correlation coefficient with ANC performance score	Pearson correlation coefficient with PP/IC performance score
Self-Evaluation	8.0	8	0.178*	0.172*
Supervisor Evaluation	8.4	10	0.140	0.217**

The results demonstrated strong correlation between the self-assessment of performance and the actual performance – both with ANC and PP/IC scores. An even stronger correlation was found between the provider’s assumption of how his/her supervisor would evaluate provider’s performance and the PP/IC performance score. The dispersion of this estimate was much higher –

with average value at 8.4 and the most frequent value at 10, meaning there were many low estimates. Self-evaluation estimates are more cohesive.

3. SERVICE UTILIZATION

One of the most important objectives of the efforts directed at the improvement of the quality of care are within the area of service utilization. Training and equipment provision alone can yield no or little results, if health workers do not have enough clients to apply the acquired skills or knowledge. Thus, increasing the level of service utilization is considered one of the main objectives of Project NOVA.

The general levels of client load in all RH areas is pretty low across Armenia. It is typical of countries with malfunctioning health system, but in Armenia it is reinforced with the factor of a low birth-rate, which does not even reach replacement level.

Client Record Review

Table 20. Yearly averages of number of clients by type of service, facility and marz (October, 2003 – September, 2004)⁵

Service	Shirak			Tavush			Total		
	FAP n= 85	MA n=14	PC n=10	FAP n=37	MA n=16	PC n=4	FAP n=122	MA n=30	PC n=14
Antenatal care clients	24.5	342.3	1093.8	18.8	147.3	1358.0	23.1	240.9	1175.1
Antenatal care clients referred	14.0	46.5	6.0	11.0	47.0	28.3	13.3	46.7	12.1
Postpartum care clients	9.8	93.5	168.4	12.9	128.7	223.5	10.6	114.0	184.1
Postpartum care clients referred	0.1	0.0	0.0	1.2	0.4	2.3	0.3	0.2	1.2
Family planning clients	--	--	50.0	32.0	0.0	18.0	32.0	0.0	34.0
STI clients	--	390.0	69.8	--	6.0	1283.5	--	134.0	416.6
Children up to 1 year old	83.2	175.3	469.6	71.8	254.3	1778.8	80.0	218.4	906.0

The table presents the average number of clients for those facilities, where corresponding records could be found and for those facilities, in which the relevant services were provided. The average number of service users remain very small at the lowest levels of service provision. For instance, the average number of ANC clients per month is less than two per village, and even less is for PP/IC clients. Family planning and STI counseling services are not provided at all at the FAP level, and very rarely at the HC level – only three facilities out of 30 total reported to have provided this services in the mentioned time period.

⁵ October to the next year's September is taken as the basis for the assessment of client load, as it corresponds with the Project NOVA's program year length.

A striking difference is in the field of child care – relatively a big portion of children are served at FAP level. It has to do with the fact that children under 1 year old undergo several immunization procedures. The responsibility for making immunization is effectively shared with FAP personnel, which is very different from antenatal care, where only few supervisors allow nurses to provide the full range of the services.

Table 21. Total number of clients by type of service, facility and site (October, 2003 – September, 2004)

Type of service	Shirak			Tavush		
	FAP n= 85	MA n=14	PC n=10	FAP n=37	MA n=16	PC n=4
Antenatal care clients	1620	4108	9844	433	1915	5432
Antenatal care clients Referred	897	511	48	232	517	85
Postpartum care clients	620	935	842	284	1802	447
Postpartum care clients referred	5	0	0	22	5	7
Family planning clients	--	--	50	32	0	18
STI clients	--	390	349	--	12	2567
Children up to 1 year old	4826	1753	3757	1651	3052	7115

Table 21 presents the total number of services offered in two marzes. The general picture in most areas resemble the relative proportion of the marzes population (Shirak is approximately twice as large). The only striking difference is the higher load of pediatric care on polyclinics, health centers and ambulatories in Tavush (7115 and 3052 respectively) compared to Shirak (3757 and 1753), where a considerable burden of care falls on FAPs.

An important factor affecting the quantity of clients utilizing the offered services is the quality of record keeping. Only 55% of facilities had records which fulfilled the following two criteria: records are clear, easy to read and periodic reports are submitted to upper level facilities. The following table presents the data on the number of facilities, where records on according services could be found.

Table 22. Availability of medical records and services by type of service, facility and marz

Service	Shirak			Tavush			Total		
	FAP n= 85	MA n=14	PC n=10	FAP n=37	MA n=16	PC n=4	FAP n=122	MA n=30	PC n=14
ANC visit	66 (77.6%)	12 (85.7%)	9 (90.0%)	23 (62.2%)	13 (81.3%)	4 (100.0%)	83 (68.0%)	25 (83.3%)	13 (92.9%)
ANC clients referred	64 (75.3%)	11 (78.6%)	8 (80.0%)	21 (56.8%)	11 (68.8%)	3 (75.0%)	75 (61.5%)	22 (73.3%)	11 (78.6%)
PNC visits	63 (74.1%)	10 (71.4%)	10 (100.0%)	22 (59.5%)	14 (87.5%)	2 (50.0%)	85 (69.7%)	24 (80.0%)	12 (85.7%)
PNC clients referred	60 (70.6%)	9 (64.3%)	3 (30.0%)	19 (51.4%)	12 (75.0%)	3 (75.0%)	79 (64.8%)	21 (70.0%)	6 (42.9%)
FP visits	--	--	1 (10.0%)	1 (2.7%)	1 (6.3%)	1 (25.0%)	1 (0.8%)	1 (3.3%)	2 (14.3%)
STI visits	--	1 (7.1%)	5 (50.0%)	--	2 (12.5%)	2 (50.0%)	--	3 (10.0%)	7 (50.0%)
Children up to 1 year old	58 (68.2%)	10 (71.4%)	8 (80.0%)	23 (62.2%)	12 (75.0%)	4 (100.0%)	81 (66.4%)	22 (73.3%)	12 (85.7%)

As expected, the least number of adequate records were found in FAPs. In a number of cases the mentioned services were not provided, as is the case with the family planning and STI counseling, but the main services (ANC, PPC, IC) were provided in all facilities. However, the records were often not kept at all, and even less facilities had records clean and easy to read.

Client Perspectives

This section is devoted to the most important factor that affects service utilization rates – the level of client satisfaction with the different aspects of care. Client perspectives are one of the most important aspects of quality. A key goal of NOVA is to increase client demand and satisfaction with services, thus it is vitally important to provide a reliable and valid measurement of client-related parameters at the baseline evaluation.

As was mentioned above, an average number of clients per facility per time unit is too low to have a reliable data on all facility levels through client exit interviews. Various agencies find their own solutions of this problem – the most common is to organize client exit interviews in bigger facilities. The problem is that only PCs provide large enough flow of clients to have a reliable application of the sampling method, and thus missing clients from the most remote locations. Also those who visit facilities rarely, will be underrepresented. NOVA solved the problem through organization of household interviews with the random sampling based on the lists of women who gave birth within the last six months. Thus, a marz-level representative sample of both marzes for all main three types of care was provided.

Table 23. Client characteristics by marz

	Average Age (full years)	Percent Married	Percent with secondary and higher education	Gestational age at first ANC visit (months)
Shirak	23.4	68.0	93.5	3.5
Tavush	24.4	90.6	84.9	3.7

The Table 23 presents the average characteristics of the sample. The youngest respondent was 17 years old, and the oldest – 42 years old, with the average age at 24 years. Most respondents were married at the time of delivery, with a difference between marzes (68% in Tavush compared to 91% in Shirak), which shows the difference in family patterns between population of two marzes. Vast majority of clients had a minimum level of complete secondary education, with two respondents attaining only an elementary school education (three years).

The gestational age at first ANC visit according to the women's responses, was around 3 to 4 months. Having the first ANC visit in the first trimester is a global and national quality indicator for pregnancy care. The study showed that most women do conduct a visit before their pregnancy's 4th month (58%), with the most frequent pregnancy duration at the first visit being 3 months.

Table 24. Gestational age at the first ANC visit according to client interviews

	Frequency	Valid Percent
3 months old and less	86	58.1
4 months and more	62	41.9
Total	148	100.0

Table 25. Reasons clients stated for delaying ANC services⁶

	Shirak	Tavush
Lack of resources or transportation	54.2	54.7
People tend not to go if nothing goes wrong	38.5	30.2
Lack of knowledge, information	18.8	24.5
Traditional beliefs	10.4	5.7
Some people do not know they are pregnant	7.3	9.4
Dissatisfaction with the quality of care	2.1	3.8
Religious reasons	2.9	0.0

Clients were asked their opinion could make women delay their first visit to a provider. The most popular answer was the lack of financial resources or transportation means – more than half respondents chose this option. Other popular answers collecting more than one-fifth of the responses were “lack of knowledge” and “people tend not to visit a provider is nothing goes wrong”. Other options collected less than 10% answers and include also minor percentage of those who selected such factors as traditional beliefs and religious reasons.

⁶ Respondents were offered to give up to two answers, that is why the sum of values may exceed 100%.

Table 26. Percentage of clients who answered positively about different aspects of quality during ANC visit by marz

	Shirak n=97	Tavush n= 53	Total N=150
Client considered the given information useful	73.1	69.4	71.7
Nobody could see the client during the visit	87.0	82.0	86.0
Nobody could hear the client during the visit	84.9	88.7	86.3
Client felt information shared with provider would remain confidential	65.6	64.2	65.1
Provider treated client:			
very well	64.9	52.8	60.7
well	33.0	47.2	38.0
Staff treated client:			
very well	37.5	22.6	32.2
well	56.3	75.5	63.1
Provider gave material to take home for reading	27.8	43.4	33.3
Client rates services as: very satisfactory			
excellent	48.4	32.3	42.6
satisfactory	46.3	64.2	52.7
Physician gave materials to read at last visit	28.4	43.4	33.8

Clients' perception of service quality is reassuring: direct questions based on scale demonstrated very good results – less than 2% evaluated provider's treatment worse than "well". The general impression of the services showed similar results. The special link between a client and a provider seemed to be an important factor. For instance, the reasons for choosing the place for delivery varied between marzes, but the most popular answer remained the factor of being the nearest for the client (see Table 46). Next popular response was based on the evaluation of the staff's attitudes – they were either proficient, or treated the client well. This is despite the fact that a few women could not firmly remember the name of the physician they visited or who accepted the birth.

Clients were also asked to offer suggestions on how to improve the quality of services (see Table 51). The three most popular responses obtaining aggregated almost half of the responses were, in order of frequency, to improve cleanliness of facilities, supply of drugs and to buy additional equipment.

Financial issues

Providers generally feel that they are rewarded by community if they do their work well through verbal encouragement, community respect, in-kind gifts and informal payments. It is widely understood that providers throughout the system accept financial incentives through informal payments. Very few providers responded positively to the question whether it is common to accept money from community. However, at least five-sixths of the surveyed clients admitted to having paid any money to the service provider (related expenses, such as drugs and petrol, are not counted). The client interview included a separate section on informal payments for RH services. The questions covered all issues connected with spending on all aspects of RH services, including ANC, delivery-related expenses, PP/IC expenses and, separately, amounts spent on drugs, travel and other side expenses.

The study showed differences in payments for different services. Almost two-thirds of the respondents stated that they had not paid for the ANC, and almost three-fourth admitted not paying for PP/IC services. On the other hand, 80% confidently stated they had paid for the delivery with 7% refusing to answer the question (due to the sensitivity of the topic for both clients and providers), and only 12% stating they had not paid.

Table 27. Percentage of clients who did not pay for the use of RH services by type of service

	No payment	Did not use service	No answer
Prenatal care			
Shirak	76.3	2.1	1.0
Tavush	39.6	3.8	0.0
Total	63.3	2.7	0.7
Delivery			
Shirak	16.5	0	7.2
Tavush	3.8	0	7.5
Total	12.0	0	7.3
Postpartum care			
Shirak	79.4	2.1	1.0
Tavush	66.0	1.9	1.9
Total	74.7	2.0	1.3
Drugs			
Shirak	39.2	10.3	1.0
Tavush	34.0	0	5.7
Total	37.3	6.7	2.7

The average amount of money spent on the services is impressive. The average payment to the provider for ANC (out of those who actually admitted paying) equaled 3,600 AMD, with slightly higher amount of money spent on PP/IC services – more than 3,800 AMD. Facility-related expenses for the delivery equaled more than 33,000 AMD. These amounts should be also combined with an average spending of around 10,000 drams on drugs.

Table 28. Client interview: selected answers

	Shirak		Tavush	
	No	Yes	No	Yes
Presents/payments were requested by staff	93.8	6.3	94.3	3.8
Know which services are free	76.3	23.7	56.6	43.4

The fact that clients pay for the services, is closely connected to the fact that less than 30% of clients are generally aware that there are services that should be provided free of charge. This factor contributes to the fact of RH-related payments being so common across rural areas of the two marzes. However, at the interview, only 5% clients stated that they were requested to pay for the services.

Also, majority of clients (60%) felt that the services are affordable for their family budgets. The results are not comparable with several other studies on out-of-pocket expenses, but we can say that having 40% of clients not satisfied with the level of spending on RH-related services can be considered a high figure.

Table 29. Level of affordability of medical services by marz

	Shirak	Tavush
Medical services are not affordable at all	17.5%	23.1%
Medical services are not generally affordable	20.6%	17.3%
Medical services are pretty much affordable	48.5%	48.1%
Medical services are entirely affordable	12.4%	11.5%

4. EQUIPMENT/ SUPPLIES

This assessment inventoried not only equipment, but also some basic drugs and supplies, written materials, and infrastructure condition. Also, the coverage of the tool included not only the FAPs, but also health centers and polyclinics. This was done as recognition of the importance of the physical condition of the facility for the improved communication between community and PHC provider, which is a priority for Project NOVA.

Table 30. Average percentage of available items for service delivery at facilities by marz

Index Score	Shirak			Tavush		
	FAP	MA/HC	PC	FAP	MA/HC	PC
	n=84	N=14	n=10	n=37	n=16	n=4
Index Score for Necessary Equipment/ Supplies (21 items)	61.0%	81.6%	91.4%	53.4%	77.4%	75.0%
Index score for written materials (7 items)	48.5%	71.4%	72.9%	49.0%	73.2%	67.9%
of which ASTP poster on free services	36.1%	92.9%	90.0%	18.9%	68.8%	75.0%
Index Score for Infrastructure availability (10 items)	64.4%	87.5%	84.5%	53.4%	69.4%	58.8%
Index Score for optional Infrastructure availability (10 items)	17.9%	55.4%	67.5%	23.3%	52.3%	68.8%
Index score of supplies/drug availability (14 items)	15.2%	44.4%	54.3%	17.4%	40.6%	39.3%

The difference between marzes is not great, though higher level facilities in Shirak tend to be better equipped than those in Tavush. The index score is slightly higher for Tavush facilities only in the section of written materials. For all other sections Shirak's facilities had higher scores, in some cases (optional infrastructure, drugs/ supplies) slightly higher, in some cases considerably.

The obvious and expected conclusion is that FAPs scored lower across all dimensions of equipment and supplies availability compared to higher level facilities. Although the PCs and HCs scored pretty high on index score, the expectation is that they would need to get very close to 100%, since the inventory list was very basic.

Especially problematic is the situation with drug and supplies availability – the index score does not reach average 50% even for higher level facilities, though the list of checked drugs was elementary (see Appendix 8).

Another interesting finding relates to the availability of posters, printed by Armenia Social Transition Program, with the list of the services provided free of charge by facilities. The poster was printed and distributed in 2004, but by the start of 2005 it could be found only in 82% facilities (PCs, HCs and MAs), where it was supposed to be posted. On the other hand, it could be found in nearly one-third of FAPs, where it was not compulsory. The correlation tests show there is no significant correlation between the number of equipment items and the performance of nurses.

Table 31. Average Percentage of Selected Available Items for Service Delivery at FAPs

FAPs		Tavush Marz n=37		Shirak Marz n=85	
		N	%	n	%
1.	Physicians tape measure (flexible)	32	86.5	66	79.5
2.	Thermometers	23	62.2	70	84.3
3.	Stethoscopes	26	70.3	70	84.3
4.	Portable sphygmomanometer w/sm., med, lg cuffs	22	59.5	74	89.2
5.	Adult scale metric	31	83.8	53	63.9
6.	Infant scale	32	86.5	58	69.9
7.	Outpatient Surgical sets [scalpel, holders, iris, scissors/Kelly clamps]	17	45.9	34	41.0
8.	Glucometer [not requiring strips]	0	0.0	9	10.8
9.	First aid kit	8	21.6	39	47.0
10.	Pelvimeter	22	59.5	60	72.3
11.	Obstetrical stethoscope or doppler	31	83.8	57	68.7
12.	Disinfection solution	17	45.9	58	69.9
13.	Soap	26	70.3	65	78.3
14.	Sterilized gloves	12	32.4	46	55.4
15.	Gauze or cotton balls	18	48.6	71	85.5
16.	Injectors	24	64.9	66	79.5
17.	Kitchen or stove	18	48.6	46	55.4
18.	Examination gloves	20	54.1	38	45.8
19.	Box for single use injectors and syringes	31	83.8	72	86.7
20.	Pregnancy test	2	5.4	1	1.2
21.	ASTP poster on free services	7	18.9	30	36.1
22.	Vaccination posters	35	94.6	82	98.8
23.	Iron tablets	3	8.1	10	12.2
	Protocols				
24.	1. Nurse/midwife training modules	25	67.6	51	61.4
25.	2. STI syndromic management guidelines	23	62.2	32	38.6
26.	3. MOH orders	6	16.2	31	37.3
27.	4. UNFPA materials	6	16.2	18	21.7
28.	5. Other health education materials	25	67.6	38	45.8

The table above shows availability of all items at FAPs. Similar values for higher level facilities are shown in the Table 53 and Table 54. The results are more or less expected, the items like glucometer and pregnancy tests can be found only in less than one-tenth of the facilities. At the same time, traditional items like infant scales and stethoscopes were in almost all facilities.

5. FACTORS INFLUENCING PERFORMANCE

In this section, a further bivariate analysis is undertaken to evaluate the relative importance of various factors affecting performance. Previous similar bi and multi-variate analyses of performance factors helped shape the design of Project NOVA, particularly as it relates to the role of formal and informal feedback from supervisors and community members on performance of providers.

Table 32. Mean ANC, PPC scores by presence/absence of performance factors: background characteristics

Performance factor	Variable values	ANC	n	PPC	n
Background					
Age	≤ 41 yrs.	33.5%	94	34.8%	104
	42+	34.0%	100	37.8%	118
Years working in the facility	0-12	33.7%	88	35.8%	97
	13+	33.9%	106	36.8%	125
Overall working experience	≤19	33.3%	100	34.1%	113
	20+	34.3%	94	38.8%*	109

The bivariate analysis shows linkages between number of years of professional experience of the groups of under and over 20 years of experience, on the one side, and performance in PP/IC, on the other side. A more detailed observation using the Pearson correlation analysis showed that comparing discrete values as opposed to the dichotomic ones is more sensitive and that correlation of all variables were significant with the performance level, though each for only one type of care. Since all three background variables are closely correlated with each other, it is not surprising that they all were found significant predictors of performance.

Table 33. Correlation between ANC, PPC performance scores and background characteristics

	Pearson correlation coefficient with ANC performance score	Pearson correlation coefficient with PPC performance score
Overall working experience	0.039	0.162*
Years working in the facility	0.005	0.153*
Age	0.082	0.148*

Table 34. Mean ANC, PPC scores by presence/absence of performance factors: job expectations

Performance factor	Variable values	ANC	n	PPC	n
Has job description	Yes	38.8%	24	39.8%	27
	No, DK	33.1%	170	35.9%	195
Showed job description	Yes	35.9%	18	40.8%	21
	No, DK	47.3%	6	36.4%	6

Providers who reportedly have their job descriptions available at the workplace, performed better than their colleagues without those. However, the difference was not significant due to a small number of observations and a big difference in samples of these two groups – only 12% of total providers answered positively to this question. A small sample for the factor of actually showing job description explains uneven differences in performance level values.

Table 35. Correlation between ANC, PPC performance scores and facility equipment

		Correlation coefficient with ANC performance score	Correlation coefficient with PPC performance score
Index score for obligatory items	Pearson Correlation	.122	.085
	N	117	121
Index score for posters and protocols	Pearson Correlation	.266(**)	.187(*)
	N	117	121
Index score for condition of facility	Pearson Correlation	.082	-.058
	N	115	118
Index score for other supplies	Pearson Correlation	-.004	.011
	N	117	121
Index score for necessary drugs	Pearson Correlation	-.064	.004
	N	117	121

Another important set of factors that were expected to have influence on the performance, were the existence of equipment, supplies, drugs, written materials, and the condition of the facility. An index score was calculated on the basis of the 63-item list (see Appendix 8), after dividing the list into five groups of items. The only score that significantly positively affected performance is the number of posters, protocols and other written materials, as documented in inventory list. Also, score of obligatory items and facility infrastructure showed positive correlation, while the score for drug availability and optional items showed practically no correlation – either negative or positive.

Table 36. Mean ANC, PP/IC scores by presence/absence of performance factors: motivation and incentives

Performance factor	Variable values	ANC	n	PP/IC	n
Receive bonuses or raises for good work	Yes	33.9%	150	36.7%	175
	No, DK	33.2%	44	35.3%	47
Bonuses are linked with good job	Yes	30.4%	14	36.2%	16
	No, DK	33.9%	177	36.2%	202
Get non-monetary incentives from supervisor	Yes	34.4%	151	36.6%	173
	No	34.7%	36	34.6%	40
Non-monetary incentives from supervisor: Verbal recognition	Yes	34.4%	152	37.3%*	174
	No	32.5%	38	32.1%	41
Non-monetary incentives from supervisor: Written recognition	Yes	28.0%	14	39.5%	18
	No	34.9%	171	35.8%	192
Non-monetary incentives from supervisor: Uniforms	Yes	37.1%	14	34.4%	15
	No	34.1%	171	36.3%	195
Non-monetary incentives from supervisor: Free/reduced medicines	Yes	38.4%	33	40.4%*	40
	No	33.3%	153	35.2%	172
Non-monetary incentives from supervisor: Equipment	Yes	38.0%	10	39.3%	11
	No	34.2%	175	35.9%	199
Non-monetary incentives from supervisor: Training courses	Yes	36.5%	58	40.9%**	67
	No	32.7%	131	34.2%	146
Get non-monetary incentives from the community	Yes	34.6%	170	36.3%	193
	No	36.3%	17	36.4%	21
Non-monetary incentives from the community: Verbal recognition	Yes	34.3%	165	36.8%	189
	No	30.7%	24	31.2%	25
Non-monetary incentives from the community: Written recognition	Yes	30.5%	15	36.3%	14
	No	34.7%	170	36.1%	195
Non-monetary incentives from the community: In-kind products or small gifts	Yes	31.9%	82	34.6%	101
	No	35.3%	107	37.7%	112
Non-monetary incentives from the community: Services in return	Yes	35.4%	55	35.7%	65
	No	33.9%	130	36.3%	145
Non-monetary incentives from the community: Respect in community	Yes	33.9%	154	36.8%	174
	No	31.6%	38	34.3%	42

Table 36 shows the relationship between various incentive factors and the performance. Three factors were found significant for PP/IC performance of providers. Bonuses and salary raises despite expectations, were not significant, though the ones who stated to have received those in the last three years, performed slightly better than the others. The significant factor was verbal recognition, which corresponds to the results of the Special Study on Performance Factors conducted at baseline under PRIME II in 2002, where, again, verbal recognition on the side of supervisor was one of the few factors showing strong linkage with the performance. Another factor showing 1% significant linkage was the provision of training courses. And, lastly, it is the provision of free or at reduced prices medicine.

Table 37. Mean ANC, PPC scores by presence/absence of performance factors: supervision

Performance factor	Variable values	ANC	n	PPC	n
Received supervision	Up to 1 month ago	34.2%	102	36.8%	114
	>1 month ago	30.5%	49	35.3%	53

Table 38. Correlation between ANC, PPC performance scores and background characteristics

	Pearson correlation coefficient with ANC performance score	Pearson correlation coefficient with PPC performance score
Times supervisor has come in the past 2 months	-0.051	0.013

The supervision factor did not significantly influence the performance. Though the correlation is certainly positive, as it can be seen in the Table 38, it is not significant.

Table 39. Mean ANC, PPC scores by presence/absence of performance factors: work environment, knowledge and skills.

	Variable values	ANC	n	PPC	n
Work Organization and Environment					
Adequacy of workplace (composite)	Yes ($\geq 75\%$)	33.2%	40	35.9%	40
	No ($< 75\%$)	33.4%	32	37.4%	65
Has the necessary equipment, instruments and supplies	Yes ($\geq 75\%$)	34.3%	26	36.7%	26
	No ($< 75\%$)	33.0%	81	36.2%	82
Has the necessary drugs	Yes ($\geq 14\%$)	33.5%	70	36.9%	71
	No ($< 14\%$)	32.9%	37	35.2%	37
Knowledge and Skills					
Believes has necessary skills to do the job	Yes	34.1%	175	36.1%	199
	No, DK	30.8%	19	39.1%	23
Applied skills in his/her job	Yes	35.1%*	164	37.0	188
	No	26.6%	24	32.3%	24
Whether received training in RH	Yes	35.1%**	164	37.0%	188
	No	26.5%	29	33.0%	33
Year of last training	2003-2004	36.3%*	136	36.0%	117
	≤ 2002	36.7%	85	30.5%	76
Whether need more trainings	Yes	34.1%	163	36.2%	184
	No	32.0%	31	37.6%	38

The table shows that out of various factors that had capacity to affect the performance, only the knowledge and skills section had significant ties with performance. Among these factors are whether the provider had received training in RH, and more weakly, the year of last training, and opportunity to apply skills in the new job.

Certainly, the study cannot prove the causal relation between the performance and the performance factors. It may happen that it is expectation of provision of a training increases the performance of provider, but that those who answered positively, have already undergone training, and thus have increased their performance. Also, supervisors of those providers who perform bad, are not willing to give a recognition. One conclusion is certain: that these factors are related to performance, and according to the experience of previously conducted programs, it is possible to significantly improve the performance of providers within a limited time frame.

VII. APPENDICES

Appendix 1. Full Frequency Tables

Table 40. Average scores of selected items of community mapping by marz

	Tavush			Shirak			Total		
	Average	Min	Max	Average	Min	Max	Average	Min	Max
Distance in km from village to the nearest delivery facility	14.66	0	35	7.5	0	35	12.4	0	35
Distance in travel time by car from village to the nearest delivery facility	21.84	0.5	45	14.7	0	60	21.9	0	60
Distance in km from village to the nearest outpatient facility with a physician	7.13	0	25	5.5	0	35	8	0	35
Distance in travel time by car from village to the nearest outpatient facility with a physician	14.05	0	45	10.9	0	50	15.7	0	50
Women of reproductive age (16-49 years)	61.7	3	542	22.1	1	247	42.3	1	542
Number of children under 1	22	2	216	8.5	0	81	15.7	0	216

Table 41. Distribution of case type by type of care and profession

	ANC				PPC				FP				STI			
	Real case		Simulation		Real case		Simulation		Real case		Simulation		Real case		Simulation	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Physicians	12	18.8	52	81.3	7	5.5	120	94.5	1	2.4	41	97.6	1	2.1	47	97.9
Nurse/ Midwife	36	17.8	166	82.2	43	19.5	178	80.5								
Total	48	18.1	218	81.9	50	17.5	298	86.1	1	2.4	41	97.6	1	2.1	47	97.9

Table 42. Percentage of nurses/midwives & physicians who fulfilled each item and average ANC score

No	Item or task	Nurses n=196	Physicians n= 65
1.	Greets and calls woman by her name or surname and introduces him/herself if first visit	93.3 (195)	96.9
2.	Washes hands with soap & water	6.2 (193)	10.8
3.	Explains purpose of the session and nature of the procedures	27.6	60.0
4.	Explains purpose of the session and nature of the procedures Ensures woman is in a comfortable environment	48.7 (195)	66.2
5.	Asks questions and allows client to express herself	63.3	86.2
6.	Pays attention and is interested in personal problems of the woman	53.1	72.3
7.	Reviews clinic record before start of session/does new record for new client	58.5 (195)	69.2
8.	For first consultation, checks about previous pregnancies: number, evolution and outcomes	49.1 (175)	77.2 (57)
9.	For first pregnancy asks for the last menstruation	84.3 (178)	82.8 (58)
10.	Makes a RIGHT decision on term of pregnancy	47.6 (191)	61.5
11.	Asks about pregnancy-related complaints	77.9 (195)	82.8 (64)
12.	In case it is possible performs medical examination (urine, blood)	9.0 (167)	74.1 (54)
13.	Refers for medical examination (urine, blood) at other facilities	54.1 (194)	49.0 (51)
14.	Collects woman's medical anamnesis	44.8 (181)	75.4 (57)
15.	Explores pulse rate	16.0 (194)	36.5 (63)
16.	Explores blood pressure	91.8	93.8
17.	Explores temperature	14.5 (193)	15.6 (64)
18.	Gets anthropometric measurements: weight, height	65.6 (189)	76.9
19.	Examines skin and conjunctivae	15.3	44.6
20.	Examines the legs for oedema, redness and varicose veins	51.0	64.6
21.	Examines mouth	2.6	26.6 (64)
22.	Examines thyroid/asks about thyroid	2.6	21.9 (64)
23.	Examines breasts	26.8 (194)	30.2 (63)
24.	Examines/asks about the heart and lungs, in case it is necessary sends her to the relevant specialist	16.8	66.2
25.	Inspects and palpates abdomen for scars, pigmentation	12.1 (190)	43.1
26.	Palpates uterus to detect the height and measures uterine height, abdomen circumference	29.6	61.5
27.	Defines fetal presentation and position	16.9 (178)	54.1 (61)
28.	Listens to the fetal heart rate	23.1 (182)	60.9 (64)
29.	Determines weeks of pregnancy and probable delivery date	26.0	47.7
30.	Informs woman about the progress of pregnancy	9.2	33.8
31.	Informs woman about her health condition	16.4 (195)	35.4
32.	Informs woman on danger signs: pain, fever, bleeding and leaking of vaginal fluid	17.3	32.3
33.	Orients woman on the place of delivery (hospital contacts, transportation, etc.)	28.9 (180)	21.3 (61)
34.	Orients woman about management of common pregnancy-related afflictions	17.9	31.3 (64)
35.	Orients woman about personal hygiene, rest and general care	67.3	70.8
36.	Orients woman about STI prevention	6.1	18.5
37.	Orients woman about sexuality	5.1	23.1

No	Item or task	Nurses n=196	Physicians n= 65
38.	Informs woman of positive and side effects of medicines during pregnancy	12.3 (195)	21.5
39.	Informs or asks woman about iron supplementary therapy and prescribes iron and/or folic acid on as needed basis	8.7	24.6
40.	Orients woman about breast feeding	27.5 (182)	33.9(62)
41.	Solicits questions to ensure client has understood	18.9	43.1
42.	Schedules the next appointment according to clinic needs and woman's convenience	48.0	76.9
43.	Records all findings, assessments, diagnosis and care with client	53.1	83.1
44.	Thanks client for her time	42.3	32.3
	AVERAGE PERCENTAGE SCORE	33.7	51.6

¹ Percentages of total valid observations

Table 43. Percentage of providers who fulfilled each item and average PP/IC score

No	Item or task	Nurses n=220	Physicians n=128
1	Greets and calls woman by her name and introduces him/herself if first visit	89.1	96.1
2	Washes hands with soap & water and dries them	9.1	12.5
3	Ensures woman is in a comfortable environment	40.9	46.9
4	Explains purpose of the session and nature of the procedures	37.6 (218)	50.8
5	Asks questions and allows client to express herself	72.3	74.2
6	Pays attention and is interested in personal problems of the woman	55.9	59.4
7	Asks about last pregnancy and delivery: evolution, outcome, any complications	55.6 (196)	74.2(124)
8	Asks about danger signs (bleeding, fever, excessive pain)	39.9 (218)	40.6
9	Explores pulse rate	4.6 (217)	13.4 (127)
10	Explores blood pressure	30.3 (218)	28.1
11	Takes temperature	26.6 (218)	21.9
12	Examines skin and conjunctivae	11.0 (218)	18.8
13	Checks for edema, redness and varicose veins – legs	10.6 (218)	16.4
14	Inspects and palpates abdomen for uterine involution	22.0 (218)	30.5
15	Examines breasts and inquires for any lactation problem	58.2	48.4
16	Examines lochia (amount, color, smell)	25.0 (216)	28.1
17	Assesses baby's health: feeding	79.5	70.3
18	Asks about baby's health: sleeping	53.9 (219)	43.0
19	Asks about baby's health: posture	18.6	21.9
20	Asks about baby's health: skin color	37.3	20.3
21	Asks about baby's health: breathing	1.4	13.3
22	Asks about baby's health: fever	30.9	22.7
23	Assesses baby's health: feeding	70.0	69.5
24	Assesses baby's health: sleeping	21.9 (219)	17.2
25	Assesses baby's health: posture	32.7	50.8
26	Assesses baby's health: skin color	86.4	67.2
27	Assesses baby's health: breathing	3.2 (219)	15.6
28	Assesses baby's health: fever	33.2	15.6
29	Informs woman about her health condition	12.4 (218)	12.5
30	Informs woman about the baby's health condition	26.4	34.4
31	Informs woman about potential complications and trains on self assessment	16.8	29.7
32	Orients woman about breast feeding	86.3 (204)	79.8 (124)
33	Orients woman about breast care	53.5 (202)	50.8 (124)
34	Orients woman about personal hygiene	55.4 (204)	52.4 (124)
35	Orients woman about STI prevention	1.8	7.8
36	Orients woman about sexuality	7.3 (219)	16.4
37	Counsels about nutritional needs	46.8 (218)	40.9 (127)
38	Orients woman about hospital/clinic services (e.g. location, hours, etc.) for follow-up	29.9 (201)	35.5 (124)
39	Orients woman about baby vaccination	65.5	52.0 (127)
40	Orients woman about birth spacing and contraception	7.7	14.1
41	Solicits questions to ensure client has understood	19.5	28.9
42	Schedules the next appointment according to clinic needs and woman's convenience	53.9 (219)	65.6
43	Records all findings, assessments, diagnosis and care with client	50.7 (219)	48.4
44	Thanks client for her time	35.8 (218)	57.8
	AVERAGE PERCENTAGE SCORE	36.8%	38.8%

¹ Percentages of total valid observations

Table 44. Percentage of providers who fulfilled each item and average FP score

No	Item or task	Physicians
1.	Prepares ahead the necessary equipment	48.8 (41)
2.	Arranges a completely confident environment for the effective conversation	21.4 (42)
3.	At the initial visit introduces him/herself; greets and calls the patient/couple by his/her/their name/surname	64.3 (42)
4.	Asks what s/he can do for the patient or reason for his/her visit	64.3 (42)
5.	Asks the patient/couple client if s/he/they know/s about FP methods If no, Go to Q # 7	31.7 (41)
6.	Asks the patient/couple whether s/he/they has/ve a preferred FP method	36.8 (38)
7.	Collects the patient's anamnesis	46.3 (41)
8.	Asks the patient about his/her prior FP practices	35.0 (40)
9.	Gives accurate information if the patient expresses incomplete or incorrect information of FP means	40.5 (42)
10.	Comments the client for the correct information s/he knows about FP methods	12.5 (40)
11.	Uses visual aids and client education materials when clarifying	26.2 (42)
12.	Washes hands thoroughly with soap & water and dries them	7.1 (42)
13.	Conducts physical assessment as indicated as further screening according to findings of the history taken, as a mandatory step before starting the FP method	19.5 (41)
14.	Regularly records findings of the physical assessment during the procedure	9.5(42)
15.	Puts disinfected gloves on both hands before the bimanual examination of the woman	26.8 (41)
16.	Performs bimanual examination, as indicated	26.8 (41)
17.	After the bimanual examination (If performed by using disinfected gloves, otherwise Go to Q 18) Immerses both gloved hands in 0.5% chlorine solution, removes the gloves by turning them inside out <i>and</i> Places disposing gloves in the leakproof or plastic container <i>and</i> Washes hands thoroughly with soap & water and dries them	14.6 (41)
18.	After bimanual examination washes hands thoroughly with soap and water.	17.1 (41)
19.	Reviews with the client the findings of the physical assessment (<i>if conducted</i>), history taken, and client's reproductive goal/plans in regard to the method tentatively selected	16.7 (42)
20.	Decides and explains whether the patient: (<i>Check one that applies</i>) can use the FP method without any restriction , or has special concerns about use of the FP method, or can use the FP method under regular supervision of the service provider, or contraindications to using the particular FP method	47.6 (42)
21.	Allows the patient to ask questions or express her/his concerns	47.6 (42)
22.	Responds to the questions and concerns, if any, based on the fact and medical research data	38.1 (42)
23.	Chooses an individual assessment protocol for the patient/couple and once again confirms with the patient/couple the FP method s/he/they has/ve need to use	43.9 (41)
24.	Administers the FP method (Check for one response only) gives patient three or more cycles of COCs or POPs or refers for an IUD insertion or Gives condom to the couple/man/woman or Refers for a diaphragm fitting or Refers for a NORPLANT® Implants insertion or Counsels on using the rhythmic/natural/ method of contraception or Counsels on using spermicides	83.3 (42)
25.	Explains instructions on the use of the method administered	59.5 (42)
26.	Delivers information on the importance of regular checkup if the FP method was administered	31.7 (41)
27.	Delivers information on signs which would alter the woman/couple to seek care	40.5 (42)
28.	Provides treatment in case of a health problem or refers to another facility, if applicable	18.4 (38)

Table 45. Percentage of providers who fulfilled each item and average STI score

No	Item or task	Physicians
1	Prepares ahead the necessary equipment	55.3 (47)
2	Arranges a completely confident environment and avoids interruption by other clients or staff	18.8
3	At the initial visit introduces him/herself; greets and calls the patient by his/her name/surname	62.5
4	Offers the patient a seat	70.8
5	Assures that the patient feels free for an easy conversation	64.6
6	Reassures the patient of the privacy and confidentiality of the service	18.8
7	Asks what s/he can do for the patient or reason for his/her visit	35.4
8	Asks the patient about his/her name and age	46.8 (47)
9	Asks the patient about the complaints or abnormal signs	89.6
10	Asks the patient about the onset/duration of the symptoms	80.9 (47)
11	Asks the patient about the sexual partners and last sexual intercourse	52.1
12	If a woman, asks about her menstrual and obstetrical history	34.0 (47)
13	Records all the pertinent information on the patient's record	22.9
14	Asks the patient if s/he needs to empty the bladder; tests the urine, if necessary	8.3
15	Asks the patient to undress; leaves the examination room to give the patient to undress	31.9 (47)
16	Observes the patient's general appearance (skin, mucous layers, scleras, etc)	22.9
17	Explains the patient each step of the physical examination	35.4
18	Explores the pulse rate	2.1
19	Takes the body temperature	4.2
20	Washes hands thoroughly with soap & water and dries them	10.4
21	Puts disinfected gloves on both hands	60.4
22	Checks for the lower abdominal and suprapubic pain	39.6
23	Examines the patient for lymphadenopathy	16.7
24	<u>If the patient is a man:</u> Checks for urethral discharge. Takes swabs for culture, if necessary and available.	76.6 (47)
	<u>If the patient is a woman:</u> Checks external genitalia for sores and swelling. Checks the vaginal orifice for bleeding and abnormal discharge. Takes swabs for culture, if necessary and available.	
25	<u>If the patient is a man:</u> Checks for genital lacerations after retracing foreskin. Takes swabs for culture, if necessary and available.	91.5 (47)
	<u>If the patient is a woman:</u> Performs a speculum examination and takes appropriate swabs and cultures. Performs a bimanual examination to test for the cervical motion tenderness, if necessary and available.	
26	Other examinations /please, specify/	15.4(26)
27	a) Immerses both gloved hands in 0.5% chlorine solution, removes the gloves by turning them inside out , AND	29.2
	b) If disposing the gloves, places them in leakproof container or plastic , AND	
	c) Washes hands thoroughly with soap & water and dries them	
28	Records all the findings from the examination	72.9
29	Arranges for appropriate screening and diagnostic procedures	37.5
30	Identifies the patient's individual problems/needs, based on the findings	45.8
31	Chooses a treatment based on guidelines	60.4
32	If needed, refers the client to an appropriate center for specialized investigation and care	38.2(34)
33	Follows the syndromal treatment	43.8

34	Explains the treatment	52.1
35	Describes possible side effects	27.1
36	Explains the importance of taking the complete treatment	39.6
37	Explains the importance of treatment for sexual partner	64.6
38	Reminds the patient that the condoms prevent from the reinfection	25.0
39	Discusses the correct way to use condoms	8.3
40	Solicits the main questions discussed to ensure that the patient has understood them	33.3
41	Explains the necessity to abstain from sexual life; otherwise usage of condoms is required	39.6
42	Educates/counsels the patient on risk prevention and safe sexual practices Records the relevant details on care on the client's record	31.3
43	Records the client's management details	22.9
44	Makes the next appointment	56.3
45	Writes a referral, if needed, for treatment in a specialized center.	27.8(36)
46	Asks the patient if s/he has any questions and concerns.	56.3
47	Thanks the patient for the visit.	39.6
48	Tells the woman about her husband's extramarital relations	14.6
49	Delicately tells the woman about that	14.6

Table 46. Distribution of written materials per provider by marz

	Shirak		Tavush		Total	
	%	n	%	n	%	n
Guidelines	75.3	150	85.0	80	78.7	230
Modules, written materials	70.0	150	52.5	42	63.9	230
Protocols	25.3	150	18.9	74	23.2	224
Posters	72.7	150	85.7	84	77.4	234
Literature	93.3	150	86.9	84	91.0	234
Nurse/midwife training modules	51.3	150	59.2	76	54.0	226
STI syndrome management guidelines	42.7	150	58.8	80	48.3	230
MOH orders	40.7	150	33.8	74	38.4	224
UNFPA materials	10	150	13.3	75	11.1	225

Table 47. Reasons for choosing clients' place of delivery

Reason	Shirak	Tavush
Nearest to me	48.4	66.0
Staff's service is qualified	28.4	15.1
Always come here	8.4	5.7
I know/like the staff	7.4	20.8
Good reputation	16.8	9.4
Cost of the services is comfortable	2.1	13.2
Other	6.3	0.0

Table 48. Person accompanying client on first visit to provider

Person	Shirak (%)	Tavush (%)
	n=95	n=53
I went alone	5.3	7.5
Mother-in-law	69.5	62.3
Partner/husband	15.8	20.8
My mother or other family	8.4	9.4
Other person	1.1	0

Table 49. Participation of husband/partner in the process of antenatal care by marz

Action	Shirak (%)	Tavush (%)	Total (%)
	n=95	n=53	n=148
Accompanied me at the visits to the provider	48.3	54.9	50.7
Helping in house working	26.4	29.4	27.5
Did nothing	23.0	11.8	18.8
Other	1.1	3.9	2.2

Table 50. Client interview: selected answers

	Shirak	Tavush	Total
Did your provider give you any instructions on what you are allowed to do around the house at your pregnancy?	53.1	60.4	55.7
Did your provider let the partner/husband know about those?	23.8	21.2	22.7
Did your partner/husband follow the instructions of the provider on how to deal with a pregnant woman regarding rest, types of work, nutrition, other?	85.0	82.7	84.1
Do you think a stronger inclusion of a partner/husband in the antenatal care would help pregnant women?	92.8	92.5	92.7
Mean gestational age until which the woman was doing the housework (months)	8.4	8.3	8.4

Table 51. Clients' suggestions to improve the quality of the services

n	Suggestions	Shirak		Tavush		Total	
		n	%	n	%	n	%
1.	Improve supply of drugs	10	10.3	9	17.3	19	12.8
2.	Improve hygiene/cleanliness	13	13.4	17	32.7	30	20.1
3.	Buy necessary equipment	9	9.3	14	26.9	23	15.4
4.	Increase number of providers	2	2.1	2	3.8	4	2.7
5.	Supervise providers	3	3.1	3	5.8	6	4.0
6.	Increase space	6	6.2	4	7.7	10	6.7
7.	Regularly available doctor	1	1.0	1	1.9	2	1.3
8.	Increase professional level of providers	7	7.2	6	11.5	13	8.7
9.	Increase number of hours open	5	5.2	2	3.8	7	4.7
10.	Increase motivation of providers	1	1.0	0	0.0	1	0.7
11.	Support to health worker by supervisor and colleagues	1	1.0	1	1.9	2	1.3

Table 52. Quality of keeping records by facility type

	FAP	MA	PC
	n=122	n=30	n=14
Records are clear, easy to read	71.2% (118)	79.3% (29)	84.6% (13)
Records exist for the previous 3 years on monthly basis	54.2% (118)	72.4% (29)	92.3% (13)
Periodic reports are submitted to upper level facilities	64.4% (118)	69.0 % (29)	92.3% (13)

Table 53. Average Percentage of Available Items for Service Delivery (MA/HC)

MA/HC		Tavush Marz n=16		Shirak Marz n=14	
		n	%	n	%
1.	Physicians tape measure (flexible)	15	93.8	13	92.9
2.	Thermometers	14	87.5	14	100
3.	Stethoscopes	16	100	14	100
4.	Portable sphyngomanometer w/sm., med, lg cuffs	15	93.8	14	100
5.	Adult scale metric	12	75.0	13	92.9
6.	Infant scale	14	87.5	13	92.9
7.	Outpatient Surgical sets [scalpel, holders, iris, scissors/Kelly clamps]	12	75.0	9	64.3
8.	Glucometer [not requiring strips]	9	56.3	3	21.4
9.	First aid kit	11	68.8	9	64.3
10.	Pelvimeter	14	87.5	12	85.7
11.	Obstetrical stethoscope or doppler	14	87.5	13	92.6
12.	Disinfection solution	12	75.0	14	100
13.	Soap	16	100	13	92.9
14.	Sterilized gloves	9	56.3	11	78.6
15.	Gauze or cotton balls	13	81.3	14	100
16.	Injectors	15	93.8	14	100
17.	Kitchen or stove	13	81.3	13	92.9
18.	Examination gloves	10	62.5	13	92.9
19.	Box for single use injectors and syringes	14	87.5	13	92.9
20.	Pregnancy test	5	31.3	1	7.1
21.	ASTP poster on free services	11	68.8	13	92.9
22.	Vaccination posters	16	100	14	100
23.	Iron tablets	7	43.8	7	50
Protocols					
24.	1. Nurse/midwife training modules	12	75	7	50
25.	2. STI syndromic management guidelines	12	75	7	50
26.	3. MOH orders	12	75	14	100
27.	4. UNFPA materials	6	37.5	3	21.4
28.	5. Other health education materials	13	81.3	12	85.7

Table 54. Average Percentage of Available Items for Service Delivery at Facilities (Polyclinics)

Polyclinic		Tavush Marz n=4		Shirak Marz n=10	
		n	%	n	%
1.	Physicians tape measure (flexible)	4	100	10	100
2.	Thermometers	3	75	10	100
3.	Stethoscopes	3	75	10	100
4.	Portable sphyngomanometer w/sm., med, lg cuffs	4	100	10	100
5.	Adult scale metric	3	75	9	90
6.	Infant scale	3	75	9	90
7.	Outpatient Surgical sets [scalpel, holders, iris, scissors/Kelly clamps]	3	75	10	100
8.	Glucometer [not requiring strips]	2	50	8	80
9.	First aid kit	3	75	10	100
10.	Pelvimeter	4	100	9	90
11.	Obstetrical stethoscope or doppler	3	75	9	90
12.	Disinfection solution	3	75	10	100
13.	Soap	4	100	10	100
14.	Sterilized gloves	1	25	9	90
15.	Gauze or cotton balls	3	75	10	100
16.	Injectors	4	100	10	100
17.	Kitchen or stove	3	75	10	100
18.	Examination gloves	4	100	10	100
19.	Box for single use injectors and syringes	3	75	10	100
20.	Pregnancy test	2	50	5	50
21.	ASTP poster on free services	3	75	9	90
22.	Vaccination posters	4	100	10	100
23.	Iron tablets	1	25	4	40
Protocols					
24.	1. Nurse/midwife training modules	3	75	8	80
25.	2. STI syndromic management guidelines	1	25	7	70
26.	3. MOH orders	4	100	8	80
27.	4. UNFPA materials	1	25	3	30
28.	5. Other health education materials	3	75	6	60

Table 55. Number of medical personnel by type of facility⁷

Medical personnel	PC (n=14)	MA/HC (n=30)	FAP (n=122)	Total (n=166)
General Physicians (<i>Terapefts</i>)	59	28	4	91
Obstetrician/ gynecologists	27	5	1	33
Pediatricists/neonatologists	47	25	1	73
Dermatovenerologists	9	0	0	9
Family doctors	5	11	0	16
Nurses	67	94	180	341
Midwives	30	28	17	75
Other physicians	75	8	1	84
Other medical staff	29	23	7	59
Total	348	222	211	781

Table 56. Results of community health provider interview (on the scale 1 to 4, where 1 the worst estimate, and 4 is the best)

	N	Mean	Mode
Village mayor concerned about community issues	99	3.39	4
Village mayor encourage community participation	96	3.16	3
Village mayor gives importance to health issues	99	3.08	3
How often physician visits the community	93	1.99	2
Community concerned with RH issues	97	2.67	3
Might be community leaders	99	0.53	1

Table 57. Results of community mayor interview (on the scale 1 to 4, where 1 the worst estimate, and 4 is the best)

	N	Mean	Mode
Community opinion about health worker competence	107	3.19	3
Health provider is respected in community	106	3.44	3
Health provider is rising health related issues	104	3.15	3
How often physician visits the community	101	2.23	3
Community concerned with RH issues	104	2.81	3
Might be community leaders	110	0.73	1

Table 58. Results of community member interview (on the scale 1 to 4, where 1 the worst estimate, and 4 is the best)

	N	Mean	Mode
Village mayor concerned about community issues	109	3.53	4
Village mayor encourage community participation	110	3.18	3
Village mayor gives importance to health issues	106	3.16	4
Community opinion about health worker competence	105	3.24	3
Health provider is respected in community	105	3.45	3
Health provider is rising health related issues	79	2.96	3
How often physician visits the community	100	2	2
Community concerned with RH issues	111	2.62	3
Might be community leaders	110	0.62	1

⁷ Numbers related to physicians may not sum up correctly due to the fact that some physicians work simultaneously at the same time at two or more facilities.

Appendix 2. Data Collection Instruments: Antenatal Care Visit Observation

CHECKLIST FOR ASSESSMENT OF ANTENATAL CARE VISIT

Observer's first name, last name: _____ Team #: ____

GENERAL INFORMATION

Observation date: (dd/mm/yy) __/__/__

Observation start time: __:__

Facility name: _____

Facility type:

- 1. Polyclinic
- 2. Ambulatory/Health Center
- 3. FAP

Facility address _____

ID # of the provider (the Interviewer should ensure that the number coincides with the list number foreseen for the observations).

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Specialization of the provider:

- 1. Therapeft
- 2. Ob/Gyn
- 3. Pediatrician
- 4. Dermatologist-venerologist
- 5. Family Doctor
- 6. Nurse/midwife

NOTE TO THE OBSERVER

This is a young married woman of 23, first-time pregnant who comes first time to the provider and the clinic. She is approximately 7 months pregnant, has not had a prenatal care visit before. Her LMP was April 15 (supposed delivery period January 22), let the midwife determine the pregnancy period. The reason for making a late visit was her mother-in-law's influence. By the end of counseling ask "How are the matters with me?" In other cases try to avoid giving additional information by brief answers.

Got married in March 2002.

Complaints

- Headache
- Getting plump.

If the observation is carried out with a real client, ask the client's agreement to start. Do not remind the provider about steps forgotten to include. Only register steps/procedures spontaneously carried out/mentioned by the provider. Mark the way in which the information was collected, below.

Do not remind the provider about the steps missed by her during the assessment. Register only the performed steps/protocols.

Check one of the following available options of the data collection:

1. Information was collected through a simulated exchange and not through observation of a real case
2. Information was collected through a real-case observation

Use the following guide to mark the results of your observations:

- 1 = Done
 0 = Not done, or done unsatisfactorily
 9 = Not applicable

If one point states two operations that are separated by “AND”, put “1” ONLY if both operations are implemented.

#	ITEM	1/0/9
1	Greets and calls woman by her name/surname and introduces him/herself if first visit	
2	Washes hands with soap & water	
3	Talks about the purpose of the visit and/or nature of the interventions	
4	Ensures woman is in a comfortable environment	
5	Asks questions and allows the woman to express herself	
6	Pays attention and is interested in personal problems of the woman	
7	Reviews clinic records before starting the session (if not the first visit) /makes a new record for the new client (in case of first visit)	
8	For first consultation, checks about previous pregnancies: number, evolution and outcomes (only for 1 st visit, for other cases write ‘9’)	
9	For current pregnancy: assesses LMP (only for 1 st visit, for other cases write ‘9’)	
10	Correctly determines the pregnancy period	
11	Asks about complains	
12	In case it is possible performs medical examination (urine AND blood) (write ‘9’ if not possible to determine)	
13	Refers for medical examination (urine AND blood) at another facility	
14	Collects woman’s medical anamnesis (only for the 1 st visit)	
15	<i>Explores pulse rate</i>	
16	Explores blood pressure	
17	Explores temperature	
18	Gets anthropometric measurements: weight AND height (height only in case of 1 st visit)	
19	Examines skin and conjunctivae	
20	Examines the legs for edema OR redness OR varicose veins	
21	Examines mouth cavity	
22a	Examines thyroid (Physician)	
22b	Ask about thyroid (Nurse/Midwife)	
23	Examines breasts	
24a	Examines the heart and lungs, in case of necessity refers to the relevant specialist (Physician)	
24b	Ask about the heart and lungs, in case of complains sends her to the relevant specialist (Nurse/Midwife)	
25	Inspects abdomen for scars, pigmentation, striae	
26	Palpates uterus to detect the height AND measures uterine height AND abdomen circumference	

#	ITEM	1/0/9
27	Performs maneuvers to detect fetal position and situation (in case of pregnancy of 28 weeks and more, in other cases write '9')	
28	Listens to the fetal heart rate (in case of pregnancy of 18 weeks and more, in other cases write '9')	
29	Verifies probable delivery date based on previous findings	
30	Informs woman about the progress of pregnancy and the fetus' health condition	
31	Informs woman about her health condition and any complications	
32	Informs woman on danger signs: pain, fever, bleeding and leaking of vaginal fluid	
33	Orients woman for the place of delivery (hospital, contacts, transportation, etc) (in case of pregnancy of 28 weeks and more, in other cases write '9')	
34	Orients woman on management of common pregnancy-related afflictions	
35	Orients woman on personal hygiene, nutrition, rest and general care	
36	Orients woman on STI prevention, general information, risk factor	
37	Orients woman on sexual life during pregnancy	
38	Informs woman on positive and side effects of medicines during pregnancy	
39	Informs or asks woman about iron supplementary therapy and prescribes iron and/or folic acid on as needed basis	
40	Orients woman on breastfeeding, (in case of pregnancy of 28 weeks and more, in other cases write '9')	
41	Solicits questions to ensure client has understood	
42	Schedules the next appointment according to clinic needs and woman's convenience	
43	Records all findings, assessments, diagnosis and care with client	
44	Thanks client for her time	

Observation end time ___: ___

**Appendix 3. Data Collection Instruments: Postpartum and Infant Care Visit
Observation**

CHECKLIST FOR ASSESSMENT OF POSTPARTUM CARE

Observer's first name, last name: _____ Team #: ____

GENERAL INFORMATION

Observation date: (dd/mm/yy) __/__/__ Observation start time: __:__

Facility name: _____

Facility type:

- 1. Polyclinic
- 2. Ambulatory/Health Center
- 3. FAP

Facility address _____

ID # of the provider (the Interviewer should ensure that the number coincides with the list number foreseen for the observations).

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Specialization of the provider:

- 1. Therapeft
- 2. Ob/Gyn
- 3. Pediatrician
- 4. Dermatologist-venerologist
- 5. Family Doctor
- 6. Nurse/midwife

Now let's observe post partum care delivery. Please, perform all the actions that you usually perform during post partum care delivery. Include all usual examinations, counseling and procedures. Physical examination details can be mentioned orally without demonstration.

NOTE TO THE OBSERVER

Conduct this observation whenever possible through a real client-provider interaction. If there are no clients/patients at the time of the visit, conduct a simulated exchange with the following scenario: this is a young married woman of 23, first pregnancy who has gone to the nearest hospital for delivery, had a normal delivery and was discharged 2 days later.

If the observation is carried out with a real client, ask the client's agreement to start.

Do not remind the provider about steps forgotten to include. Only register steps/procedures spontaneously carried out/mentioned by the provider. Mark the way in which the information was collected, below.

Check the information collection method for this observation:

- 1. Information was collected through a simulated exchange and not through observation of a real case
- 2. Information was collected through a real-case observation

Use the following guide to mark the results of your observations:

1 = Done

0 = Not done, or done insufficiently

9 = Not applicable

#	ITEM	1/0/9
1	Greets and calls woman by her name or surname and introduces him/herself if first visit	
2	Washes hands with soap & water	
3	Ensures woman is in a comfortable environment	
4	Explains purpose of the session and nature of the procedures	
5	Asks questions and allows client to express herself	
6	Pays attention and is interested in personal problems of the woman	
7	Asks about last pregnancy and delivery: evolution, outcome, any complications (ONLY FOR 1 st VISIT, FOR OTHER CASES WRITE '9')	
8	Asks about danger signs (bleeding, fever, excessive pain)	
9	Explores pulse rate	
10	Explores blood pressure	
11	Explores temperature	
12	Examines skin AND conjunctivae	
13	Checks for legs - edema, redness and varicose veins	
14	Inspects AND palpates abdomen for uterine involution	
15	Examines breasts AND inquires for any lactation problem	
16	Examines vaginal discharge (amount, color, smell)	
17	Asks about baby's health: feeding	
18	Asks about baby's health: sleeping	
19	Asks about baby's health: posture	
20	Asks about baby's health: skin color	
21	Asks about baby's health: breathing	
22	Asks about baby's health: fever	
23	Assesses baby's health: feeding	
24	Assesses baby's health: sleeping	
25	Assesses baby's health: posture	
26	Assesses baby's health: skin color	
27	Assesses baby's health: breathing	
28	Assesses baby's health: fever	
29	Informs woman about her health condition	
30	Informs woman about the baby's health condition	
31	Informs woman about potential complications of woman or baby and trains on self-assessment	
32	Orients woman on breast-feeding (only for 1 st visit, for other cases write '9')	
33	Orients woman on breast care (only for 1 st visit, for other cases write '9')	
34	Orients woman on personal hygiene (only for 1 st visit, for other cases write '9')	
35	Orients woman on STI prevention	
36	Consults woman on sexual life	
37	Consults on nutrition	
38	Orients woman on hospital/clinic services (e.g. location, hours, etc), follow up visits (only for 1 st visit, for other cases write '9')	
39	Orients woman on baby vaccination	
40	Orients woman on the period between deliveries and contraception	

#	ITEM	1/0/9
41	Solicits questions to ensure client has understood	
42	Schedules appointment/next visit according to needs and woman's convenience	
43	Records all findings, assessments, diagnosis and care with client	
44	Thanks client for her time	

Observation end time ____: ____

**Appendix 4. Data Collection Instruments: Assessment of STI Care Delivery Visit
Observation**

CHECKLIST FOR ASSESSMENT OF STI CARE DELIVERY

Observer's first name, last name _____

Team # ____

GENERAL INFORMATION

Date of the observation: (dd/mm/yy) ___/___/___

Observation start time ___:___

Facility name: _____

Type of facility

1. Polyclinic
2. Ambulatory/Health Center
3. FAP

Address of the facility: _____

Specialization of the provider:

1. Therapeft
2. Ob/Gyn
3. Pediatrician
4. Dermatologist-venerologist
5. Family Doctor

ID # of the provider (the data collector should ensure that the number coincides with the list number foreseen for the observations).

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NOTES FOR THE OBSERVER Please, perform the following observation - based on the patient-physician communication. The provider must be informed to use all the components of the patient's assessment, i.e. knowledge, skills, information, manipulations, protocols, in their cooperation. Do not remind the provider about the missed by him/her steps during the assessment. Register only the performed steps/protocols by his/her side.

In the case of absence of any visit use the following scenario for scaling the provider performance:
A 35-years old married woman, a housewife, visited for vaginal discharge of a greenish color and specific odor, itching-started 2 days ago. Her husband works in the capital at a reconstruction company. The woman has tried a self treatment with Ampicillin tabs, and has not reached an effect. Sexual life has started 10 years ago. She has only one partner-her husband. Her last menstrual period started 10 days ago. She has had two pregnancies, one of which was a normal pregnancy with normal term delivery of a baby in 1997; and the second pregnancy in 2002 was interrupted by an induced abortion at 11th week of gestation.

Check one of the following available options of the data collection:

1. Information was collected through a simulated exchange and not through observation of a real case
2. Information was collected through a real-case observation

Use the following guide to mark the results of your observations:

- 0= Not performed
- 1=Performed satisfactorily
- 9= Not applicable

	<i>ITEM</i>	0/1/9
A	GETTING READY	
1	Prepares ahead the necessary equipment	
2	Arranges a completely confident environment and avoids interruption by other clients or staff	
3	At the initial visit introduces him/herself; greets and calls the patient by his/her name/surname	
4	Offers the patient a seat	
5	Assures that the patient feels free for an easy conversation	
6	Reassures the patient of the privacy and confidentiality of the service	
7	Asks what s/he can do for the patient or reason for his/her visit	
B	TAKING HISTORY	
8	Asks the patient about his/her age	
9	Asks the patient about the complaints or abnormal signs	
10	Asks the patient about the onset/duration of the symptoms	
11	Asks the patient about the sexual partners and last sexual intercourse	
12	If a woman, asks about her menstrual and obstetrical history	
13	Records all the pertinent information on the patient's record	
C	PHYSICAL EXAMINATION	
14	Asks the patient if s/he needs to empty the bladder; tests the urine, keep the urine sample for further laboratory analysis if necessary	
15	Asks the patient to undress; leaves the examination room to give the patient to undress	
16	Observes the patient's general appearance (skin, mucous layers, scleras, etc)	
17	Explains the patient each step of the physical examination	
18	Explores the pulse rate	
19	Takes the body temperature	
20	Washes hands thoroughly with soap & water and dries them	
21	Puts disinfected gloves on both hands	
22	Checks for the lower abdominal and suprapubic pain	
23	Examines the patient for lymphadenopathy	
24	<u>If the patient is a man:</u> Checks for urethral discharge. Takes swabs for culture, if necessary and available.	
	<u>If the patient is a woman:</u> Checks external genitalia for sores and swelling. Checks the vaginal orifice for bleeding and abnormal discharge. Takes swabs for culture, if necessary and available.	
25	<u>If the patient is a man:</u> Checks for genital lacerations after retracting foreskin. Takes swabs for culture, if necessary and available.	

	<u>If the patient is a woman:</u> Performs a speculum examination and takes appropriate swabs and cultures. Performs a bimanual examination to test for the cervical motion tenderness, if necessary and available.	
26	Other examinations (please, specify) _____	
27	1. Immerses both gloved hands in 0.5% chlorine solution (or similar solution), removes the gloves by turning them inside out , AND 2. If disposing the gloves, places them in leakproof container or plastic , AND 3. Washes hands thoroughly with soap & water and dries them	
28	Records all the findings from the examination	
D	SCREENING/DIAGNOSTICS	
29	Arranges for appropriate screening and diagnostic procedures	
30	Identifies the patient`s individual problems/needs, based on the findings	
31	Chooses a treatment based on guidelines	
32	If needed, reffers th client to an appropriate center for specialized investigation and care	
E	TREATMENT	
33	Follows the syndromal treatment	
34	Explains the treatment	
35	Describes possible side effects	
36	Explains the importance of taking the complete treatment	
37	Explains the importance of treatment for sexual partner	
38	Reminds the patient that the condoms prevent from the reinfection	
39	Discusses the correct way to use condoms	
40	Solicits the main questions discussed to ensure that the patient has understood them	
41	Explains the necessity to abstain from sexual life; otherwise usage of condoms is required	
42	Educates/counsels the patient on risk prevention and safe sexual practices.	
43	Records the client`s management details.	
44	Makes the next appointment	
45	Writes a referral, if needed, for treatment in a specialized center.	
46	Asks the patient if s/he has any questions and concerns.	
47	Thanks the patient for the visit.	
48	Tells the woman about her husband`s extramarital relations	
49	Delicately tells the woman about that	

Observation end time __:__

**Appendix 5. Data Collection Instruments: Family Planning Counseling Visit
Observation Form**

**CHECKLIST FOR ASSESSMENT OF FAMILY PLANNING
PRACTICES**

Observer’s first name, last name _____

Team # __ __

GENERAL INFORMATION

Date of the observation: (dd/mm/yy) __/__/__

Observation start time __:__

Facility name _____

Facility type

1. PC
2. Ambulatory/Health Center
3. FAP

Address of the facility: _____

Specialization of the provider:

1. Therapeft
2. Ob/Gyn
3. Pediatrician
4. Dermatologist-venerologist
5. Family Doctor

ID # of the provider (the Interviewer should ensure that the number coincides with the list number foreseen for the observations).

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NOTES FOR THE OBSERVER: Please, perform the following observation-based on the patient-physician communication. The provider must be informed to use all the components of the patient’s assessment, i.e. knowledge, skills, information, manipulations, protocols, in their cooperation. Do not remind the provider about the missed by him/her steps during the assessment. Register only the performed steps/protocols by his/her side.

In the case of absence of any visit use the following scenario for scaling the provider performance:
A 22 years old girl applied for a FP counseling. She is a third year student and has a boyfriend. According to the frequent dispatches of her partner to other regions of Armenia, their sexual life is irregular, about 2 times in a month. She wants to be informed about appropriate method of avoiding pregnancy, since she plans to graduate the university. Her girlfriends have offered to use the oral contraceptive pills, and she wants to receive a more detailed information on this purpose. She does not have any preferences. Let the doctor decide on the contraceptive method.

Check one of the following available options of the data collection:

1. Information was collected through a simulated exchange and not through observation of a real case
2. Information was collected through a real-case observation

Use the following guide to mark the results of your observations:

1= Performed

0= Unsatisfactory performance, or not performed

9= Not applicable

#	ITEM	1/0/9
1	Prepares ahead the necessary equipment	
2	Arranges a completely confident environment for the effective conversation	
3	At the initial visit introduces him/herself; greets and calls the patient/couple by his/her/their name/surname	
4	Asks what s/he can do for the patient or reason for his/her visit	
5	Asks the patient/couple client if s/he/they know/s about FP methods If no, Go to Q # 7.	
6	Asks the patient/couple whether s/he/they has/ve a preferred FP method	
7	Collects the patient's anamnesis	
8	Asks the patient about his/her prior FP practices	
9	Gives accurate information if the patient expresses incomplete or incorrect information of FP means	
10	Comments the client for the correct information s/he knows about FP methods	
11	Uses visual aids and client education materials when clarifying	
12	Washes hands thoroughly with soap & water and dries them	
13	Conducts physical assessment as indicated: 1. as further screening according to findings of the history taken 2. as a mandatory step before starting the FP method.	
14	Regularly records findings of the physical assessment during the procedure.	
15	Puts disinfected gloves on both hands before the bimanual examination of the woman.	
16	Performs bimanual examination, as indicated.	
17	After the bimanual examination (If performed by using disinfected gloves, otherwise Go to Q 18): 1. Immerses both gloved hands in 0.5% chlorine solution, removes the gloves by turning them inside out AND 2. Places disposing gloves in the leakproof or plastic container AND 3. Washes hands thoroughly with soap & water and dries them	
18	After bimanual examination washes hands thoroughly with soap and water.	
19	Reviews with the client the findings of the physical assessment (<i>if conducted</i>), history taken, and client's reproductive goal/plans in regard to the method tentatively selected.	
20	Decides and explains whether the patient: 1. can use the FP method without any restriction , OR 2. has special concerns about use of the FP method, OR 3. can use the FP method under regular supervision of the service provider, OR 4. contraindications to using the particular FP method	
21	Allows the patient to ask questions or express her/his concerns.	
22	Responds to the questions and concerns, if any, based on facts and medical research data.	
23	Chooses an individual assessment protocol for the patient/couple and once again confirms with the patient/couple the FP method s/he/they has/ve need to use	

#	ITEM	1/0/9
24	Administers the FP method: <ol style="list-style-type: none"> 1. gives patient three or more cycles of COCs or POPs OR 2. refers for an IUD insertion OR 3. gives condom to the couple/man/woman OR 4. refers for a diaphragm fitting OR 5. refers for a NORPLANT® Implants insertion OR 6. counsels on using the rhythmic (natural) method of contraception OR 7. counsels on using spermicides 	
25	Explains instructions on the use of the method administered	
26	Delivers information on the importance of regular checkup if the FP method was administered	
27	Delivers information on signs which would alter the woman/couple to seek care	
28	Provides treatment in case of a health problem or refers to another facility, if applicable.	
29	Check the contraception method administered by the provider at this visit. <ol style="list-style-type: none"> 1. Pills 2. IUD 3. DepoProvera/Injections 4. Male Condoms 5. Spermicide/Cream/Jelly 6. Condoms + spermicide 7. Emergency contraception, “Morning-after” pill 8. Tubal ligation 9. Vasectomy 10. Abortion 11. Lactational Amenorrhea Method 12. Safe period method (calendar/ mucous check) 13. Withdrawal 14. Douching 	

Observation end time __:__

Appendix 6. Data Collection Instruments: Provider Interview: Performance factors questionnaire

INTERVIEW WITH THE PROVIDER

Interviewer's first name, last name _____ Team # ____

GENERAL INFORMATION

Date (dd/mm/yy) ____/____/____ Interview start time __:__

Name of the Facility _____

Type of the facility

- 1. PC
- 2. Ambulatory/Health Center
- 3. FAP

Address of the Facility _____

Health worker ID # (Interviewer: make sure that the number corresponds to the numbers of the remaining instruments).

--	--	--	--	--

1 HEALTH WORKER DETAILS

1.1 What are your responsibilities/position?

- 1. Nurse
- 2. Midwife
- 3. Other (specify) _____

1.2 How long have you worked in the health services? (WRITE NUMBER OF FULL YEARS)
_____ YEARS

1.3 How long have you worked in this facility? (WRITE NUMBER OF FULL YEARS)
_____ YEARS

2 KNOWLEDGE AND SKILLS

The following questions refer to your professional education/training

2.1 When did you receive your last training in reproductive health (maternal/neonatal care)?
_____ DATE (year)

88. Do not receive →SKIP TO Q. 2.6

2.2 In what aspect did you receive training? _____

2.3 Which organization organized the training? _____

2.4 Have you been able to use the knowledge/skills learned in the training course?

- 1. Yes → SKIP TO Q. 2.6
- 0. No
- 9. Do not know

2.5 Why? _____

2.6 Do you think you have the knowledge or skills necessary to perform all your responsibilities?

- 1. Yes
- 0. No
- 9. Do not know

2.7 Do you think you need an additional training?

- 1. Yes
- 0. No → SKIP TO Q. 3.1
- 9. Do not know

2.8 Please specify area/topic in which you would like to be trained.

3 ***JOB EXPECTATIONS***

In this section of the questionnaire we would like to learn more about your job.

3.1 Do you have a written job description for this job?

- 1. Yes
- 0. No → SKIP TO Q. 3.3
- 9. Do not know → SKIP TO Q. 3.3

3.2 Please show your job description. MENTION THE RESULT.

- 1. The job description was shown
- 0. The job description was not shown

3.3 Do you know/understand what roles and tasks you have to carry out in your job?

- 1. Yes
- 0. No
- 9. Do not know

3.4 I will mention some guidelines, models, written material or protocols, which assist you to implement your tasks. Please mention those which you have. **READ THE RESPONSES, CIRCLE ALL THAT APPLY**

		Yes	No
1	Guidelines	1	0
2	Models, written materials	1	0
3	Protocols	1	0
4	Literature	1	0
5	Posters	1	0
6	Nurse/midwife training modules	1	0
7	STI Syndromic Management Guidelines	1	0
8	MOH Orders	1	0
9	UNFPA materials	1	0
10	Other materials on health education	1	0
11	Other (specify)	1	0

4 MOTIVATION/INCENTIVES

In this set of questions we will ask you how you are awarded for your work.

4.1 Have you had bonuses or raises in your salary within the last 3 years?

- 1. Yes
- 0. No →SKIP TO Q. 4.3
- 9. Do not know

4.2 Was it related to your good performance at work?

- 1. Yes
- 0. No
- 9. Do not know

4.3 What are non-monetary incentives coming from the employer if you do your work well?

MENTION ALL THAT APPLY

- 1. Verbal recognition
- 2. Written recognition
- 3. Uniforms
- 4. Free/discounted medicines
- 5. Equipment
- 6. Training courses
- 7. Other, please specify _____
- 8. No incentives **DO NOT READ**

4.4 What are non-monetary incentives which come from the client or community if you do your work well? **MENTION ALL THAT APPLY**

- 1. Verbal recognition
- 2. Written recognition
- 3. In-kind products or small gifts
- 4. Services in return
- 5. Respect in community
- 6. Other, please specify _____
- 7. No incentives **DO NOT READ**

5 ORGANIZATIONAL SUPPORT

In this part of the questionnaire we would like to ask how your organization helps you to perform your job.

Has your supervisor ever given you orientation towards:		Yes	No	DK
5.1	Organizational structure of the marz health care system	1	0	9
5.2	Reporting lines of authorities	1	0	9
5.3	Organizational behavior	1	0	9
5.4	Your duties, rights and responsibilities	1	0	9

5.5 Are you able to influence the decision-making process in this facility regarding the organization of the health care service (through meetings, by voting, etc.)?
 1. Yes
 0. No
 9. Do not know

5.6 Do you work in the same facility with your supervisor?
 1. Yes → SKIP TO Q. 6.1
 0. No
 9. Do not know

5.7 When was the last supervisory visit conducted to this facility?
 _____ months ago
 88. S/he has never visited

5.8 When the supervisor comes to supervise, what does she/he do? (READ ALL ANSWERS, CIRCLE ALL THAT APPLY)

1. Supervisor performs administrative tasks: checks registry, other papers, financial management
2. Supervisor attends patients, works in clinic with nurse
3. Supervisor checks environment/tools quality: for instance checks sanitarian state, cleanness
4. Supervisor solicits client feedback on services
5. Supervisor gives update on changes in procedures, clarifies instructions
6. Supervisor asks about the situations when the provider has been unable to provide health care and in case of necessity teaches how to do that
7. Supervisor suggests service quality improvement plan
8. Supervisor consults with you before making decisions
9. Other actions (specify) _____

5.9 Has your supervisor ever made a negative remark to you in presence of a client?
 1. Yes
 0. No
 9. Don't know/don't remember

5.10 How long does the visit usually take? MENTION IN MINUTES
 _____ minutes

5.11 How many times has your supervisor made supervisory visits to this facility in the past 2 months?
 _____ times

6 PERFORMANCE SELF-ASSESSMENT

The following questions will reflect your opinion on different aspects of the work.

How would you evaluate	Very good	Good	Bad	Very bad
6.1 Your relations with your supervisor?	1	2	3	4
6.2 Your relation with the community	1	2	3	4
6.3 The level of your professional development	1	2	3	4
6.4 Your willingness to work	1	2	3	4
6.5 Your relation with the colleagues	1	2	3	4

6.6 If you were to assess your performance quality, how would you assess yourself with 10 score scale where 1 is the worst point and 10 is the best.

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

6.7 What do you think how would your supervisor assess your performance using the same 10 score scale where 1 is the worst point and 10 is the best.

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

7 PERSONAL DATA

And at the end several short questions about you

7.1 How old are you? RECORD IN FULL YEARS
 _____ years old

7.2 Sex (DO NOT READ)

- 1. Male
- 2. Female

7.3 Your marital status:

- 1. Single
- 2. Married
- 3. Divorced
- 4. Separated
- 5. Widow

THANK YOU FOR YOUR TIME!

Interview end time __:__

Appendix 7. Data Collection Instruments: Client Record Review Form

CLINIC CLIENT RECORD REVIEW FORM

Name of interviewer _____

team # ___ ___

I. GENERAL INFORMATION

Date of Visit (dd/mm/yy): ____/____/____ Starting time ____:____

Name of facility _____

Type of facility

1. PC
2. Ambulatory/Health Center
3. FAP

Address of Facility _____

ID # of the facility (the Interviewer should ensure that the number coincides with the list number foreseen for other data collection instruments).

--	--	--	--	--

1. Number of personnel providing Reproductive Health Services

(NOTE: Please inform the person responsible for the facility. Consider all providers who deliver services and do not confine yourself with present people.

	Personnel:	Men	Women
1.	General Physicians/ <i>terapefts</i>		
2.	Obstetrician-gynecologists		
3.	Pediatrician		
4.	Dermatovenerologists		
5.	Family Doctors		
6.	Nurses		
7.	Midwives		
8.	Other physicians		
9.	Other personnel _____		

Mention all Reproductive Health Services offered in the facility

1. Pre-natal care
2. Delivery
3. Postpartum/Puerperium
4. Family Planning
5. Sexually Transmitted Infections (STIs)
6. HIV/AIDS
7. Prevention of Reproductive Cancer
8. Perimenopause counseling and referral
9. Infertility counseling

G. QUALITY OF RECORD KEEPING

1. Records are clear, easy to read.

1. Yes 2. No

2. Records exist for the previous 3 years on monthly basis

1. Yes 2. No

3. Periodic reports are submitted to upper level facilities, or other bodies, on the number of clients.

1. Yes 2. No, they do not exist

Appendix 8. Data Collection Instruments: Facility Inventory of Equipment and Supplies

INVENTORY

GENERAL INFORMATION

Observer's first name, last name _____ Team # __ __

Date (day/month/year)_____/_____/_____/

Facility name _____

Facility type
 1. Polyclinic
 2. Ambulatory/Health Center
 3. FAP

Address of the Facility _____

ID # of the facility (the data collector should ensure that the number coincides with the given facility ID number list number).

--	--	--	--	--

Inventory assessment should be implemented in all facilities. In bigger facilities offices should be considered as units. Ask the provider to show all inventory. Record only those tools /inventory that is in the facility (that is seen).

Please circle only one of the options provided in the right two columns.

#	ITEM	Availability Yes = 1 No = 0
A.	OBLIGATORY ITEMS	
1	Physicians tape measure (flexible)	
2	Thermometers	
3	Stethoscopes	
4	Portable sphyngomanometer w/sm., med, lg cuffs	
5	Adult scale metric	
6	Infant scale	
7	Outpatient Surgical sets [scalpel, holders, iris, scissors/Kelly clamps]	
8	Glucometer [without strips]	
9	First aid kit	
10	Pelvimeter	
11	Obstetrical stethoscope or doppler	
12	Disinfection solution	
13	Soap	
14	Sterilized gloves	
15	Gauze or cotton balls	

#	ITEM	Availability Yes = 1 No = 0
16	Injectors	
17	Kitchen or stove	
18	Examination gloves	
19	Box for single use injectors and syringes	
20	Pregnancy test	
23	Iron tablets (write quantity)	
	Posters	
21	ASTP poster on free services (PADCO)	
22	Vaccination posters	
	Protocols	
24	Nurse/midwife training modules	
25	STI syndromic management guidelines	
26	MOH orders	
27	UNFPA materials	
28	Other health education materials (specify)	

B.	CONDITION OF FACILITY	Ideal condition	Medium condition, operating	Needs renovation
29	Electrical power	1	2	3
30	Running water	1	2	3
31	Functioning toilet (in the facility or around)	1	2	3
32	Heating system (please describe)	1	2	3
33	Windows	1	2	3
34	Floor	1	2	3
35	Shelves	1	2	3
36	Examination table	1	2	3
37	1 table and 2 chairs	1	2	3
38	Refrigerator/Freezing bag	1	2	3

C.	Other	Availability Yes = 1 No = 0
39	Exam light-floor based adjustable portable	
40	Penlights – reusable diagnostic	
41	Infant stethoscope	
42	Infant sphygmomanometer	
43	Spatula	
44	Specula	
45	Straight urinary catheter	
46	Surgery threads	

D.	OTHER: DRUGS WRITE DOWN DRUG QUANTITY IN SMALL FACILITIES. CHECK DRUG EXISTENCE IN PCS	Availability Yes = 1 No = 0	Quantity
47	Multivitamins (write quantity)		
48	Oxytocine		
49	Intravenous fluids		
50	Paracetamol or any other medication containing Paracetamol, e.g. Efferalgan, Panadol, Calpol		
51	Negram/nalidixi acid		
52	Magnesium sulfat 25% or 50%		
53	Contraceptives(any)		
54	Quinolons: ciprofloxacin, ofloxacin		
55	Cephalosporins: cefixim, ceftriaxon		
56	Tetracyclines: doxycycline, tetracycline		
57	Macrolids: azithromycin, azatril, sumamed, erythromycin		
58	Penicillins: benzatin benzylpenicillin, procaine benzylpenicillin, penicillin G, amoxycillin		
59	Antifungal: clotrimazole, miconazole, fluconazole, ketoconazole		
60	Antiprotozoal: metronidazole, flagyl, tinidazole, ornidazole.		

Appendix 9. Data Collection Instruments: Community Mapping Questionnaire

COMMUNITY MAPPING INDICATORS LIST

Observer’s first name, last name: _____ Team #: ____

GENERAL INFORMATION

Date: (dd/mm/yy) __/__/__

Facility name: _____

Facility type:

1. Polyclinic
2. Ambulatory/Health Center
3. FAP

Facility address _____

ID # of the facility (the data collector should ensure that the number coincides with the given facility ID number list number).

--	--	--	--	--

USE THE FOLLOWING CODES FOR INDICATING DATA SOURCES:

1. Village mayor
2. Provider
3. Community member

Data	Data source						
A. ID number of facility	<table border="1" style="width: 100%;"> <tr> <td style="width: 20px; height: 20px;"></td> </tr> </table>						
B. Geographical location							
B.1 Distance in km of facility from the center of the village/town	_____ km						
B.2 Name and location of the nearest delivery facility							
B.3 Distance in km from village to the nearest delivery facility	_____ km						
B.4 Distance in travel time by car from village to the nearest delivery facility in minutes	_____ min						
B.5 Name and location of the nearest outpatient facility with a physician (ob/gyn, family doctor)	<table border="1" style="width: 100%;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px; background-color: #cccccc;"></td> </tr> </table>						
B.6 Distance in km from village to the nearest outpatient facility with a physician	_____ km						
B.7 Distance in travel time by car from village to the nearest outpatient facility with a physician (RECORD IN MINUTES)	_____ min						
B.8 Communications – telephone line (in the facility, at provider’s home, at the post office)							

Data		Data source
B. 9 Communications – type of transport, frequency, approximate travel time		
B.10 Communications - quality of the road		
C. Catchments area		
C. 1 Population	people	
C. 2 Number of women/men	men women	
C. 3 Women of reproductive age (16-49 years)		
C. 4 # of births within last 3 years		
C. 5 # of people who left the village permanently within last 3 years		
C.6 Migration: number of men having temporal work abroad		
C. 7 Children under 1		
C.8 Number of national minorities in the community		
C.9 Number of refugees in the community		
D. Health facility		
D.1 Existence of health facility	1. Exists 0. Not exist → reserve	
D.2 Type of facility	1. Ambulatory 2. FAP	
D.3 Existence of pharmacy	1. Exists 0. Not exists	
D.4 Equipment/supplies/literature		
D.5 Level of performance		
D.6 Education of health providers and years of experience (pre-service trainings)		
D.6.1 Health provider 1		
D.6.2 Health provider 2		
D.6.3 Health provider 3		
D.6.4 Health provider 4		
D.6.5 Health provider 5		
E. Intervention of international organizations (which organizations worked in this community during last 5 years)		
F. Supervision		
F. 1 Name and surname of the nurse		
F.2 Name and location of the supervisor 1		
F.3 Name and location of the supervisor 2		
F.4 Name and location of the supervisor 3		

Appendix 10. Data Collection Instruments: Client Interview

Client Interview

Interviewer's first name, last name (ID number) _____ Team # ____

GENERAL INFORMATION

Date (dd/mm/yy) ____/____/____

Interview start time__:_

Client address (village/city)_____

Client ID

--	--	--	--	--

INSTRUCTIONS TO INTERVIEWER

READ: Good morning/afternoon. My name is _____. I represent Project NOVA which conducts this survey together with the Ministry of Health with the aim to assess the quality of maternity health care services. Your name was randomly selected from the regional maternity home, however I would like to let you know that the inquiry is confidential, which means that your name will not be mentioned anywhere and the information provided by you will be presented only in a summarized form.

You may refuse to participate in the interview or any part of it, however your participation is very important and it will help us to understand the current status of the maternal and child care in your region and provide recommendations for its improvement.

The interview process will take 20 to 25 minutes.

Can we start now?

IN CASE OF DISAGREEMENT THANK THE RESPONDENT FOR THE TIME, FILL IN THE 'GENERAL INFORMATION' SECTION AND LEAVE.

The questions we are going to ask you refer to your last experience with your health care provider. Please try to remember your last visit to health care facility or the health provider's home visit.

SECTION 1: INFORMATION ABOUT LAST VISIT

We would like to discuss with you your last pregnancy visit and your delivery. Please be sincere and honest answering our questions.

1. Overall how many times did you visit health facility during your pregnancy?
_____ times
99. Don't know/Don't remember

2. Now please remember your first visit to health care facility. What month of pregnancy did you have on your first visit to health care facility?
_____ months
99. Don't know/Don't remember

3. Did you see a physician or a nurse/midwife at your first ANC visit?
 1. Nurse/midwife → Go to question 5
 2. Physician
 3. Both (nurse/midwife and physician)

4. What was the narrow specialization of the physician whom you saw at your first visit?
 1. Therapeft
 2. Ob/Gyn
 3. Family Physician
 4. Other (specify) _____
 99. Don't know/Don't remember

5. By which specialist were you mainly consulted during the pregnancy? MENTION ONLY ONE RESPONSE
 1. Doctor/terapeft
 2. Doctor/Ob/Gyn
 3. Doctor/Family doctor
 4. Nurse/Midwife
 5. Both of them
 99. Don't know/Don't remember

6. During this pregnancy visits did the provider explain you the complications which require urgent intervention?
 1. Yes
 2. No → Go to question 8
 99. Don't know/Don't remember

7. Please mention all complications, which were discussed with you by the health provider?

8. Did the provider prescribe you iron or folic acid or poly-vitamins during this pregnancy?
 1. Yes
 0. No → Go to question 11
 99. Don't know/remember

9. Did the provider tell you about the side effects of these medications during this pregnancy?
1. Yes
 0. No → Go to question 11
 99. Don't know/remember
10. What are the side effects? DO NOT READ THE OPTIONS, CIRCLE ALL MENTIONED RESPONSES.
1. Nausea
 2. Black feces
 3. Constipation
 4. Other (specify) _____
 99. Don't know/Don't remember
11. Did the provider consult you on nutrition during this pregnancy?
1. Yes
 2. No
 99. Don't know/remember
12. Overall, how would you evaluate cleanness of the facility which you visited during the pregnancy?
1. Very clean
 2. Enough clean
 3. Not enough clean
 4. Not clean
13. Overall were you satisfied with the consultation?
1. Yes → Go to question 15
 2. No
 88. Didn't get any consultation → Go to question 15
 99. Don't know/don't remember → Go to question 15
14. If no, what was the reason? _____

SECTION 2: CLIENT SATISFACTION

15. How useful did you find the information given to you during your last visit? Use 1-4 scores evaluation scale where 1 is "Very useful" and 4 is "Not useful".
1. Very useful
 2. Useful
 3. Slightly useful
 4. Not useful
 99. Don't know/remember
16. Do you think any person other than those caring for you could see you during your exam?
1. Yes
 2. No
 99. Don't know/remember

17. When meeting with the provider during your visit, do you think that other clients could hear what you said?
1. Yes
 2. No
 99. Don't know/remember
18. Do you THINK the information you shared about yourself with the provider will be kept confidential?
1. Yes
 2. No
 99. Don't know
19. During the last visit to the clinic, how did the provider treat you?
1. Very well
 2. Well
 3. Poor
 4. Very poor
20. During the last visit to the clinic, how did the other staff treat you?
1. Very well
 2. Well
 3. Poor
 4. Very poor
 99. There was no other staff
21. During the last visit, did the provider give you any material to take home for reading?
1. Yes
 2. No
 99. Don't know/don't remember
22. Apart from PNC what other services are you provided in the facility? (MENTION ALL POSSIBLE RESPONSES)
1. Family Planning consultation
 2. STI consultation
 3. HIV/AIDS consultation
 4. Screening/diagnosis of sex partners
 5. Other (specify) _____
 6. None
23. Now let's discuss the facility which you attended. What is (are) the major reason(s) that you chose that facility? (DON'T READ THE RESPONSES, ACCEPT NO MORE THAN TWO OPTIONS)
1. Nearest to me
 2. Staff provides good service
 3. I like/know the staff
 4. Better facilities
 5. Good reputation
 6. Always come here
 7. Friends/relative recommend
 8. Treatment charges are affordable
 9. Other (specify) _____

24. Overall, how do you rate the services you received at this facility? Use 1-4 scores evaluation scale where 1 is “Excellent” and 4 is “Very poor”.

1. Excellent
2. Satisfactory
3. Not satisfactory
4. Very poor
99. Don't know

25. Give one or more major suggestion(s) that you think will improve the services at this facility. DON'T READ THE OPTIONS, CIRCLE ALL MENTIONED RESPONSES

1. Increase space
2. Improve hygiene/cleanliness
3. Improve drug supplies
4. Buy necessary equipment
5. Regularly available doctor
6. Increase number of doctors
7. Increase motivation of providers
8. Increase professional level of providers
9. Supervise providers
10. Increase working hours of the clinic
11. Community be involved in supervision/organization
12. Support to providers from supervisors and colleagues
13. Other (specify) _____

26. What means of transport did you use to travel to medical facility?

1. Walking
2. Private Motor Vehicle
3. Public Bus
4. Taxi
5. Other (specify) _____

27. How much time (in minutes) did it take you to travel to the medical facility? (CONVERT HOURS INTO MINUTES)

- _____ minutes
99. Don't know

28. Now let's discuss the delivery facility. Where did you deliver?

1. Nearest facility or regional maternity hospital (specify facility) _____
2. Marz maternity hospital (specify facility) _____
3. Yerevan facility (specify facility) _____
4. Home
5. Other (specify) _____
99. Don't know/remember

29. What is the major reason for your place of delivery choice? (MENTION ONLY ONE ANSWER)

1. Nearest to me
2. Qualified service
3. Good reputation
4. I like the staff
5. Always deliver here
6. Friends/relative recommends
7. Less expensive
8. Other (specify) _____
99. Don't know

SECTION 3: FINANCIAL ACCESS

As we know the medical services are always connected with some expenditures. In this section we would like to know how much you paid over all for the antenatal care, delivery and other services. Now I will read a list of medical service and I would like to ask you to specify how much did you pay for each of the services specified. Please try to remember all the costs associated with the type of service, i.e. include all payments, like buying presents, fuel, etc.

INSTRUCTIONS TO DATA COLLECTORS: Write down the sum in Armenian drams. If the fee is given in other currency, recalculate translate it into Armenian drams. If the fee is provided in the form of a present, clarify the cost with the respondent and write the approximate financial equivalent. If the particular service was not used, write 99, if no money was paid, write 0. If the respondent does not remember or does not know, or does not want to respond, write 98.

	Service provided	Cost in AMD
30.	Antenatal care service with nurse/midwife (consultations, meetings with the provider)	
31.	Antenatal care service with the physician (consultations, meetings with the provider, etc)	
32.	Antenatal care: laboratory fees, tests, ultrasound, EKG	
33.	Delivery: midwife fee	
34.	Delivery: ob/gyn fee	
35.	Delivery: stay in the hospital	
36.	Delivery: services by other staff of the facility	
37.	Postpartum care (home visits)	
38.	Postpartum care (laboratory fees)	
39.	Postpartum care (vaccination)	
40.	Drugs overall (prenatal care, delivery, postpartum care)	
41.	Overall estimation of travel expenses for all the services?	
42.	Other expenses during the pregnancy and postpartum care that were not mentioned?	

43. Were you requested or asked to bring a present or pay any fees by your provider or any other facility staff?

1. Yes
2. No
99. Don't remember

44. Do you know what of the above mentioned services should have been provided to you with no charge, meaning being paid by the government?

1. Yes
2. No → Go to question 46
99. Don't remember

45. Please mention the services which should be paid by the government

46. Please assess your means to use medical services by 4 scores scale, where 1 is “medical services are not affordable at all” and 4 – “medical services are completely affordable”

1. Medical services are not affordable at all
2. Medical services are not generally affordable
3. Medical services are pretty much affordable → Go to question 48
4. Medical services are completely affordable → Go to question 48

47. What is the reason for services not being completely available for you and your family?

SECTION 4: PARTNER'S INVOLVEMENT

In this section we will discuss all types of assistance you received from your family during the pregnancy and delivery.

48. Who accompanied you to your first pregnancy visit to the health provider? (CIRCLE ALL POSSIBLE OPTIONS)

1. I went alone
2. My mother-in-law or other in-law
3. My partner/husband
4. My mother or other family member
5. Other person (specify) _____

49. How did your partner/husband participate in the process of antenatal care?

1. Accompanied me at the visits to the provider
2. Helped in housework
3. Didn't help
4. Other (specify) _____

50. Did your provider give your husband/partner any instructions on how to treat you during the pregnancy?

1. Yes
2. No

51. Did your partner/husband follow the instructions of the provider on how to deal with a pregnant woman regarding rest, types of work, nutrition, other?

1. Yes
2. No
99. No information/instructions were given

52. Up to which month of pregnancy were you doing the house work? _____ month
53. Do you think a stronger inclusion of a partner/husband in the antenatal care would help pregnant women?
1. Yes
 2. No

SECTION 5: SOCIO-DEMOGRAPHIC CHARACTERISTICS

54. How old are you? AGE IN FULL YEARS _____
55. What is the highest level of school you completed?
1. Primary
 2. Unfinished secondary
 3. Secondary or Vocational
 4. Higher/University
 5. Not attended school
56. How sufficient is your family budget to live in Armenia?
1. Significantly higher than needed
 2. A little bit more than needed
 3. As much as needed
 4. A little bit lower than needed
 5. Significantly lower than needed
57. What is your current marital status?
1. Married
 2. Co-hebetating
 3. Single, never married
 4. Engaged
 5. Divorced/separated/widowed
58. How many children do you have? _____ children
59. Pregnant women should seek antenatal care services during the first three months of pregnancy. In your opinion, what makes women delay antenatal care services later of the first three months of pregnancy? MENTION NOT MORE THAN RESPONSES
1. Lack of resources or transportation
 2. Lack of knowledge, information
 3. People tend not to go if nothing goes wrong
 4. Some women do not know they are pregnant
 5. Traditional beliefs
 6. Dissatisfaction with the quality of care
 7. Religious reasons
 8. Other (specify)

Now please tell us who was the PH care provider whom you **first** attended to for your antenatal care? INTERVIEWER: WRITE DOWN THE PROVIDER'S NAME. FIND OUT HER ID # WITH THE SUPERVISOR AND FILL IN THE FIRST PAGE

- 60a. Name of the Health care provider _____
- 60b. Location of the attended facility _____

60c. Position of the health care provider

1. Nurse/midwife
2. Family Doctor
3. Ob/gyn
4. Therapist

60d. Code of the provider

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THANK YOU!

Interview end time __:__

Ending Time_____

**Appendix 11. Data Collection Instruments: Community Interview: Village mayor
COMMUNITY AUTHORITY INTERVIEW**

General Information

Date (day/month/year) ___/___/___

Interview start time ___:___

Interviewer first name, last name _____

Name of the Facility _____

Address of the Facility _____

Source of information

1. Village mayor
2. Other mayor's office employee (specify) _____

Health facility ID # (Interviewer: make sure that the number corresponds to the numbers of the remaining instruments).

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INSTRUCTIONS TO DATA COLLECTOR

Please, fill in all questions of these questionnaires with at least 3 people suggested as sources of information above. If information provided by village mayor, health provider, and community representative, is contradicting, please make sure to include one more community representative. Remember to include all 3 sources of information. Please follow the instructions put in CAPS LOCK before questions.

READ

Good morning. My name is _____. I represent project NOVA which conducts this survey in cooperation with the Ministry of Health. The aim of this research is to explore quality of health care services in your community. Your answers will help us shape our program best suited for the needs of the community. The study is confidential; your name will not be mentioned anywhere and the information provided by you will be presented only in a summarized form.

The interview process will take 10 to 15 minutes.

You may refuse to participate in the interview or any part of it

Can we start now?

IN CASE OF DISAGREEMENT THANK THE RESPONDENT FOR THE TIME, FILL IN THE 'GENERAL INFORMATION' SECTION AND LEAVE.

Community/Local Government Activism

The following questions are aimed to explore the relations of the community and some members of the community. Please listen to the question and then choose one of the options which best describes the present situation in your opinion.

1. What is the community opinion about community health provider's competence in health issues?

1. S/he is very competent and always knows what s/he is talking about
2. S/he seems to be competent enough to deal with community members health issues
3. S/he is competent in most of the issues she comes across, but sometimes is not confident
4. S/he is competent at all, and should not be working as a health provider

Please give an example: _____

2. How much do you think health provider is respected in the community?

1. S/he is one of the most respected community members, and everybody refers to her with any health problem they would encounter
2. S/he is respected as the health provider in the community, and most people refer to her having a problem with health
3. S/he does not enjoy particular respect in the community, but people occasionally refer to her having a health problem
4. S/he is not respected in the community, and people very rarely go to her, or do not go at all

Please give an example: _____

3. Is the health provider raising health related issues/problems with the mayor, Avagani and Community?

1. Often raises health related problems
2. Raises health related problems on as needed basis
3. Raises health related problems very rarely
4. Does not speak of the health related problems at all

Please give an example: _____

4. How often does a physician visit the community?

1. Twice a month or more often
2. Each month
3. Once per two months or more rarely

- 5. How much do you think the community is concerned with primary health issues?**
1. Community is concerned very much with primary health issues, it is one of the first priorities
 2. Community is not very concerned with primary health issues
 3. Community isn't concerned with primary health issues

- 6. Do you think there might be community leaders who will be willing to take extra responsibilities in the community?**
1. yes
 2. no

Please specify what extra responsibilities might the community leaders take:

- 7. What international or local organizations worked in this community in the past 5 years? Please provide details of their involvement and the impact it had on community's life.**

THANK YOU!

Interview end time ____:____

Appendix 12. Data Collection Instruments: Community Interview: Provider Interview

COMMUNITY PROVIDER INTERVIEW

General Information

Date (day/month/year) ___/___/___ Interview start time ___:___

Interviewer's first name, last name _____

Name of the Facility _____

Address of the Facility _____

Source of information:

1. Community nurse
2. Other (specify) _____

INSTRUCTIONS TO DATA COLLECTOR

Please, fill in all questions of these questionnaires with at least 3 people suggested as sources of information above. If information provided by community representative, health provider and village mayor, is contradicting, please make sure to include one more community representative. Remember to include all 3 sources of information. Please follow the instructions put in CAPS LOCK before questions.

Health provider ID # (Interviewer: make sure that the number corresponds to the numbers of the remaining instruments).

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READ

Good morning. My name is _____. I represent Project NOVA which conducts this survey together with the Ministry of Health. This study aims to investigate quality of health care services in your community. Your answers will help us shape our program best suited for the needs of the community. The study is confidential; your name will not be mentioned anywhere and the information provided by you will be presented only in a summarized form.

The interview process will take 10 to 15 minutes.

You may refuse to participate in the interview or any part of it

Can we start now?

NOTE TO DATA COLLECTOR

IN CASE OF DISAGREEMENT THANK THE RESPONDENT FOR THE TIME, FILL IN THE "GENERAL INFORMATION" SECTION AND LEAVE.

Community/Local Government Activism

The following questions aim to explore the relations of the community and some members of the community. Please listen to the question and then choose one of the options which best describes the present situation in your opinion. I would like to emphasize that we don't look for *right* answers, we appreciate your opinion, even if you think it could be wrong or incomplete. Also, please remember, that your answers will remain confidential.

1. **How much do you think the village mayor is concerned about community issues?**

- 1 Completely concerned about community issues and problems and is actively working
- 2 Not completely concerned about community issues
- 3 Somehow concerned about community issues
- 4 Not concerned about community issues

Please give an example

2. **How much does the village mayor encourage community participation and involvement?**

- 1 Always involving the community
- 2 Often involving the community
- 3 Involving the community very rarely
- 4 Not involving the community

Please give an example

3. **How much importance do you think the village mayor gives to health issues and problems?**

- 1 Gives very much importance to health issues and problems and raise these issues
- 2 Gives much importance to health issues and problems but raise these issues not actively
- 3 Gives some importance to health issues and problems but doesn't raise these issues
- 4 Doesn't give any importance to health issues and problems

Please give an example

4. **How often does a physician visit the community?**

- 1 Twice a month or more often
- 2 Each month
- 3 Once per two months or more rarely

- 5. How much do you think the community is concerned with primary healthcare issues?**
- 1 Community is concerned very much with primary healthcare issues, it is one of the first priorities
 - 2 Community is not very concerned with primary healthcare issues
 - 3 Community isn't concerned with primary healthcare issues

- 6. Do you think there might be community leaders who will be willing to take extra responsibilities in the community?**

1. yes 2.no

If yes, please specify

- 7. What international or local organizations worked in this community in the past 5 years? Please provide details of their involvement and the impact it had on community's life.**

THANK YOU!

Interview end time ____:____

Appendix 13. Data Collection Instruments: Community Interview: Community Member Interview

COMMUNITY MEMBER INTERVIEW

General Information

Date (day/month/year) ___/___/___

Interviewer's first name, last name _____

Name of the Facility _____

Address of the Facility _____

Source of information:

- 3. School principal
- 4. School teacher

If there is no school in the community take an interview with any community member

- 5. A community member

INSTRUCTIONS TO DATA COLLECTOR

Please, fill in all questions of these questionnaires with at least 3 people suggested as sources of information above. If information provided by community representative, health provider and village mayor, is contradicting, please make sure to include one more community representative. Remember to include all 3 sources of information. Please follow the instructions put in CAPS LOCK before questions.

Health facility ID # (Interviewer: make sure that the number corresponds to the numbers of the remaining instruments).

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Good morning. My name is _____. I represent Project NOVA which conducts this survey together with the Ministry of Health. This study aims to research the quality of health care services in your community. Your answers will help us shape our program best suited for the needs of the community. The study is CONFIDENTIAL; your name will not be mentioned anywhere and the information provided by you will be presented only in a summarized form.

The interview process will take 10 to 15 minutes.

You may refuse to participate in the interview or any part of it

Can we start now?

IN CASE OF DISAGREEMENT THANK THE RESPONDENT FOR THE TIME, FILL IN THE 'GENERAL INFORMATION' SECTION AND LEAVE.

Community/Local Government Activism

The following questions aim to explore the relations of the community and some members of the community. Please listen to the question and then choose one of the options which best describes the present situation in your opinion. I would like to emphasize that we don't look for the *right* answers; we appreciate your opinion, even if you think it could be wrong or incomplete. Also, please remember that your answers will remain confidential.

1. How much do you think is the village mayor is concerned about community issues?

1. Completely concerned about community issues and problems and is actively working
2. Not completely concerned about community issues
3. Somehow concerned about community issues
4. Not concerned about community issues

Please give an example _____

2. How much does the village mayor encourage community participation and involvement?

1. Always involving the community
2. Often involving the community
3. Involving the community very rarely
4. Not involving the community

Please give an example _____

3. How much importance do you think the village mayor gives to health issues and problems?

1. Gives very much importance to health issues and problems and raise these issues
2. Gives much importance to health issues and problems but raise these issues not actively
3. Gives some importance to health issues and problems but doesn't raise these issues
4. Doesn't give any importance to health issues and problems

Please give an example _____

4. What is the community opinion about health provider's competence in health issues?

1. S/he is very competent and always knows what s/he is talking about
2. S/he seems to be competent enough to deal with community members health issues
3. S/he is competent in most of the issues she comes across, but sometimes is not confident
4. S/he is competent at all, and should not be working as a health provider

Please give an example: _____

5. How much do you think health provider is respected in the community?

1. S/he is one of the most respected community members, and everybody refers to her with any health problem they would encounter
2. S/he is respected as the health provider in the community, and most people refer to her having a problem with health
3. S/he does not enjoy particular respect in the community, but people occasionally refer to her having a health problem
4. S/he is not respected in the community, and people very rarely go to her, or do not go at all

Please give an example: _____

6. How often does the health provider raise health related issues/problems with the mayor, Avagani and community?

1. Often raises health related problems
2. Raises health related problems on as needed basis
3. Raises health related problems very rarely
4. Does not speak of the health related problems at all

Please give an example _____

7. How often does a physician visit the community?

1. Twice a month or more often
2. Each month
3. Once per two months or more rarely

8. How much do you think the community is concerned with primary healthcare issues?

1. Community is concerned very much with primary healthcare issues, it is one of the first priorities
2. Community is not very concerned with primary healthcare issues
3. Community isn't concerned with primary healthcare issues

9. Do you think there might be community leaders who will be willing to take extra responsibilities in the community?

1. yes
2. no

If yes, please specify _____

10. What international or local organizations worked in this community in the past 5 years? Please provide details of their involvement and the impact it had on community's life.

THANK YOU!

Interview end time ____:____

Project NOVA is aimed at training and providing support to primary providers of reproductive and child health care services in Armenia. It is implemented by Emerging Markets Group, IntraHealth International Inc. and Save the Children Armenia.

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