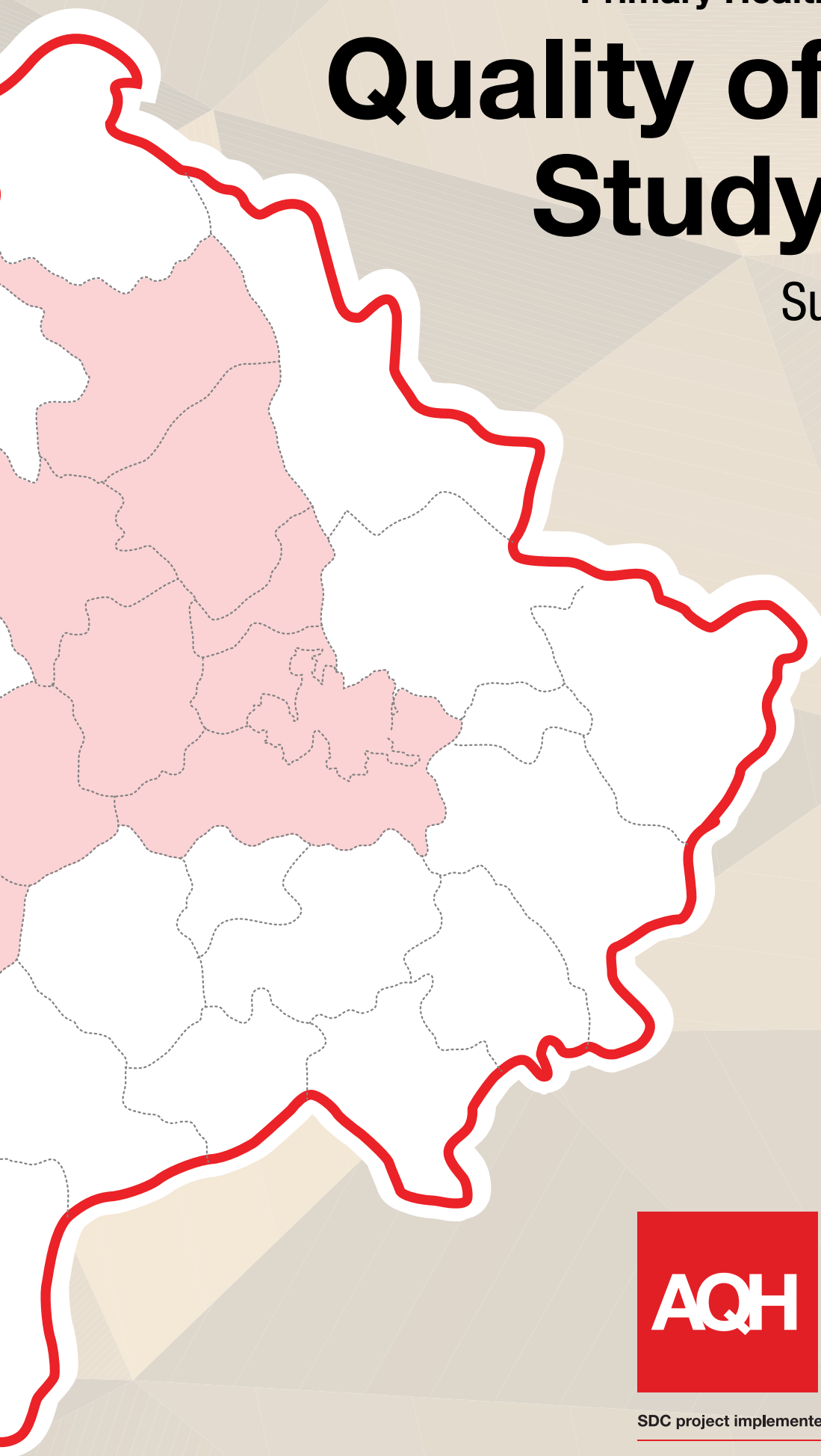


Primary Health Care in Kosovo

Quality of Care Study 2016

Summary Report



**Accessible
Quality
Healthcare**

Kujdesi Shëndetësor i Qashtëm dhe Cilësor
Kvalitetna i Dostupna Zdravstvena Zaštita

SDC project implemented by Swiss TPH and Save the Children

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*All photos taken by Ms. Layla Barake
except the photo published on page 23.*

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Executive summary

Introduction

There is a general perception that the quality of Primary Health care (PHC) services in Kosovo is poor. Quality issues include for example lack of basic supplies, essential medical equipment, staff absence during working hours resulting in long waiting times, poor staff attitudes, friends of medical staff being given priority over others who have waited longer, poor complaints handling, poor hygiene conditions, lack of information from staff—either verbally or through information materials; and ‘no tolerance’ for patients who have special needs. Adequate systems to monitor quality of care are not in place. Quality of Care in Kosovo is a concern for the most vulnerable population groups. The Accessible Quality Healthcare (AQH) project in Kosovo aims to improve the health of the Kosovar population, ensure that healthcare providers are strengthened, that managers are able to meet the needs of the patients (especially vulnerable groups), and that patients are more aware of their rights and needs. The AQH project which is financed by the Swiss Agency for Development and Cooperation (SDC) was launched in 2015 and is implemented in 12 Municipalities. To assess the project status and expected progress we conducted baseline primary data collection through a quality of care survey in health facilities.

Methods

We carried out a cross-sectional study at 40 primary health facilities in urban and rural locations across the 12 Municipalities. The survey measures structural, process and outcome attributes thereby following the framework as laid out by Donabedian (1988, 1990). We assessed the infrastructure of the different facilities (structural attributes), provider-patient interactions through clinical observation (process attributes) and patient satisfaction as a proxy for outcome attributes. During clinical observations special attention was given to diabetes and hypertensive patients.

Results

Infrastructural assessment

Variations in the facility infrastructure and overall cleanliness were common between the different facilities. Usually good results were achieved for the cleanliness of the waiting areas, the assurance of privacy in the consultation rooms and the availability of electricity. Running water, like electricity, was available in all assessed facilities but it was reported that shortages often occur. A main concern was the waste management, specifically the disposal and collection of infectious or sharp waste. Disinfectant as well as a washing point close to the bathrooms was not always available. Basic information (e.g. opening hours, tariffs) were displayed at facilities but contact phone numbers were much less common. Also logo/trademarks of pharmaceutical companies were displayed on posters in 23% of facilities.

Among medical equipment we did not find even the most basic equipment such as a thermometer or stethoscope available in all of the facilities. Hardly any facility had sufficient equipment to assess child development and growth. Gynaecologic service equipment was available in many facilities, although not always all necessary items.

Rural facilities generally achieve lower scores in the infrastructure compared to urban facilities. This discrepancy in infrastructure may disproportionately affect children below the age of 18 year who seem to access rural facilities in larger fractions than adults (46-48% of children in the sample compare to 24-25% of adults in the sample).

Clinical observations

Variations between the facilities and municipalities were common. Generally doctors were polite and ensured the confidentiality of the patient. Applying measures of hygiene and infection prevention was a main concern during clinical consultations. Hand washing with soap, the application of decontamination procedures, and use of gloves or masks as required were extremely low. For patients with diabetes, hypertension and other diseases we identified that the questioning and clinical history taking as well as giving advice and instructions were more common than conducting actual clinical examinations as required, even though improvements are needed on all three aspects

Exit interviews

Reported patient satisfaction was relatively high and did not differ between MFMCs and FMCs or between municipalities. However, between different facilities within the municipalities we observed quite some variation. The number of exit interviews performed differed a lot from the number of clinical observations we performed because patients were sometimes not willing to do the interview due to various reasons such as upcoming holidays and lack of time. Typically satisfaction with health services is difficult to measure as cultural beliefs and dependencies between the patient and provider influence the satisfaction as well as the general health literacy in the population and their understanding of what would be quality of services. Despite slightly lower performances in the infrastructure assessment and clinical observations, reported satisfaction with the service was higher in rural facilities with more people stating that they were “very satisfied” with the services (41% vs. 31%) and less people stating that they were “unsatisfied” (0.2% vs. 4%) or “very unsatisfied” (0.8% vs. 6%).



1. Background

1.1 The “Accessible Quality Healthcare” project

In May 2015, the Ministry of Health (MoH) of Kosovo and the Swiss Agency for Development and Cooperation (SDC) signed a cooperation agreement regarding the “Accessible Quality Healthcare” (AQH) project. The overall goal of this AQH project is to assess whether the health of the Kosovar population has improved, health-care providers are strengthened, managers are able to meet the needs of the patients (especially vulnerable groups), and patients are more aware of their rights and needs.

The following expected outcomes will be evaluated during the course of the study:

Outcome 1 - Primary Health Care (PHC) providers in project municipalities deliver quality services that respond better to communities’ needs, including those of vulnerable groups. This component of the AQH project is oriented towards providers and aims at improving the quality of service provision, reducing access barriers and making services more responsive to patients’ needs.

Outcome 2 - Health managers in project municipalities improve their performance in guiding service delivery towards continuous quality improvement that responds to communities’ needs. This component aims at strengthening service integration at municipality level through improved management, stronger inter-sectoral collaboration, increased effectiveness and accessibility of health services and by addressing contextual determinants and risks factors for ill-health.

Outcome 3 - Health awareness and care seeking behaviour of the population in project municipalities improves (in particular of vulnerable groups) and communities are empowered to demand the right to quality services and better access to care. This component is oriented toward the population by promoting an active patient role for the delivery of PHC services, positively influencing health seeking behaviour - particularly for the poor and former non-users or low-users - and promoting healthy lifestyles at population levels.

Outcome 1

AQH Primary Health Care providers in project municipalities deliver quality services that respond better to communities’ needs, including those of vulnerable groups

Outcome 2

AQH Health managers in project municipalities improve their performance in guiding service delivery towards continuous quality improvement that responds to communities’ needs

Outcome 3

AQH Health awareness and care seeking behaviour of the population in project municipalities (in particular of vulnerable groups) and communities are empowered to demand the right to quality services and better access to care

1.2 Overview on Quality of care

For this study we considered an operational definition of the quality of health services based on the design of the quality of care (QoC) by Donabedian (1988, 1990), which has frequently been used in similar studies (Boller, Wyss et al., 2003; Matthys, 2013). The quality of services and care is therein characterized by three dimensions: structural attributes, attributes associated with the process and attributes related to the outcomes. Process attributes are often further sub-divided into technical and inter-personal dimensions. The basic idea of the three-parts approach is based on the assumption that the three dimensions are connected to each other and ultimately to service quality: good structure increases the likelihood of good processes and good process increases the likelihood of good outcomes, although outcomes are a consequence rather than a component of the quality of services.

Structural attributes relate to the setting where health care is provided. These attributes mostly refer to the organizational structure, human- and financial resources, as well as available materials. It may also include technical performance of practitioners.

Process attributes refer to what is done during the giving and receiving of care. These attributes comprise provider-client interaction, conduct and technical aspects, and interpersonal relations/client satisfaction.

Outcome attributes look at the effects of care on the health status of populations. Outcomes are thereby considered a result of the quality of care, including, for example, survival and recovery of patients or, more indirectly, patient satisfaction.

2. Objectives

As a first step to meet AQH objectives, **a facility-based quality of care baseline study** was conducted from January to May 2016.

The objective of this baseline assessment is to measure the quality of care related to structural and procedural aspects as well as selected outcomes in PHC in 12 municipalities in Kosovo.

The specific objectives of this baseline study are:

- Establish a baseline on the quality of health services in several PHC centres in project Municipalities addressing structural and procedural aspects
- Compare aspects of health quality between urban vs. rural health facilities across 12 Municipalities
- Provide information to what degree health providers have infrastructure and consumables available as outlined the national PHC norms or, if unavailable, the WHO norms
- Establish a baseline on patient satisfaction at PHC centres and compare patient satisfaction between men and women and along indicators of socio-economic status

3. Methodology

3.1 Study design

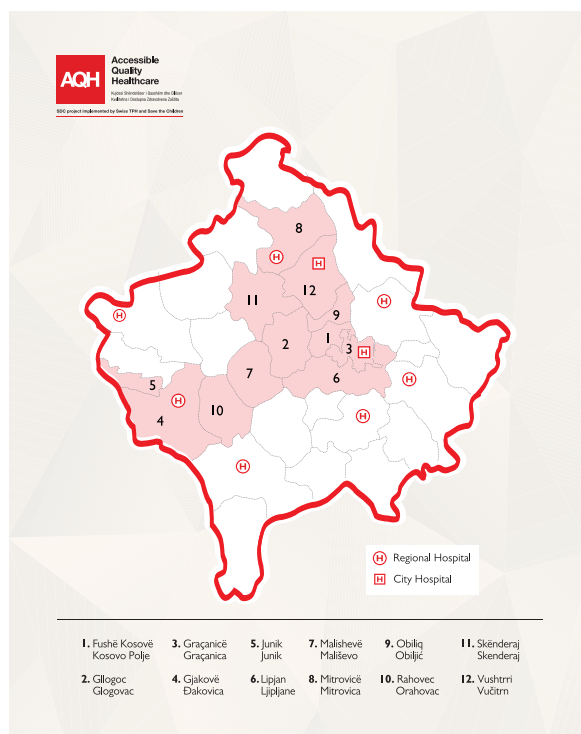
The QoC study is designed as a facility-based cross sectional survey. The survey is set-out to measure aspects of the quality of care of PHC service in project Municipalities. It captures the overall quality of the facility infrastructure (structural aspects), the quality of provider-patient interactions (process aspects) and patient satisfaction after consultation (outcome). The survey is designed as a trend study (cross-sectional surveys at different points in time using the same tools) to measure change over time. The study assesses quality of care provided to all patient groups but particularly focuses on patients with cardiovascular diseases including diabetes and hypertension.

The modules for the QoC survey are based on previous studies on Quality of Care implemented by the Swiss TPH in Tajikistan (Matthys, B., 2012), in Chad (Lechthaler, F., 2015) and Albania (Kiefer S., 2015). All of these studies considered a mix of indicators from the WHO Service Availability and Readiness Assessment (SARA) and the “Tool to Improve Quality of Health Care” within the “ACCESS” program supported by the Novartis Foundation for Sustainable Development (2014) as relevant. The modules were adapted to the Kosovo local context thereby taking into consideration the national PHC norms or, where these are unavailable, the WHO norms established in the Package of Essential Non Communicable Diseases (NCDs) Interventions.



3.2 Study area & target population

The AQH project is being implemented in the following 12 Municipalities:



Fushë Kosovë; Gjakovë; Glogovac; Graçanicë; Junik; Lipjan; Malishevë; Mitrovicë; Obiliq; Rahovec; Skenderaj; and Vushtri.

The QoC baseline survey targets PHC in rural and urban areas that provide PHC. During the survey data was collected at three different levels: 1) the health facility, 2) the health provider and 3) the patients.

Inclusion criteria for the baseline assessment

Inclusion criteria for the health facilities were as follows:

- Main Family Medicine Centre (MFMC) or Family Medicine Centre (FMC)
- At least one medical doctor assigned to the facility at least for at least one day per week

Inclusion criteria for health providers of the selected facilities for provider-patient observations were:

- Doctors providing primary health care services
- Patients, 18 years or older or accompanied by a legal representative, accessing the facility and receiving a consultation from a health provider
- Oral informed consent provided by the provider
- Oral informed consent provided by the patient or his/her legal representative (mother/father/care-taker)

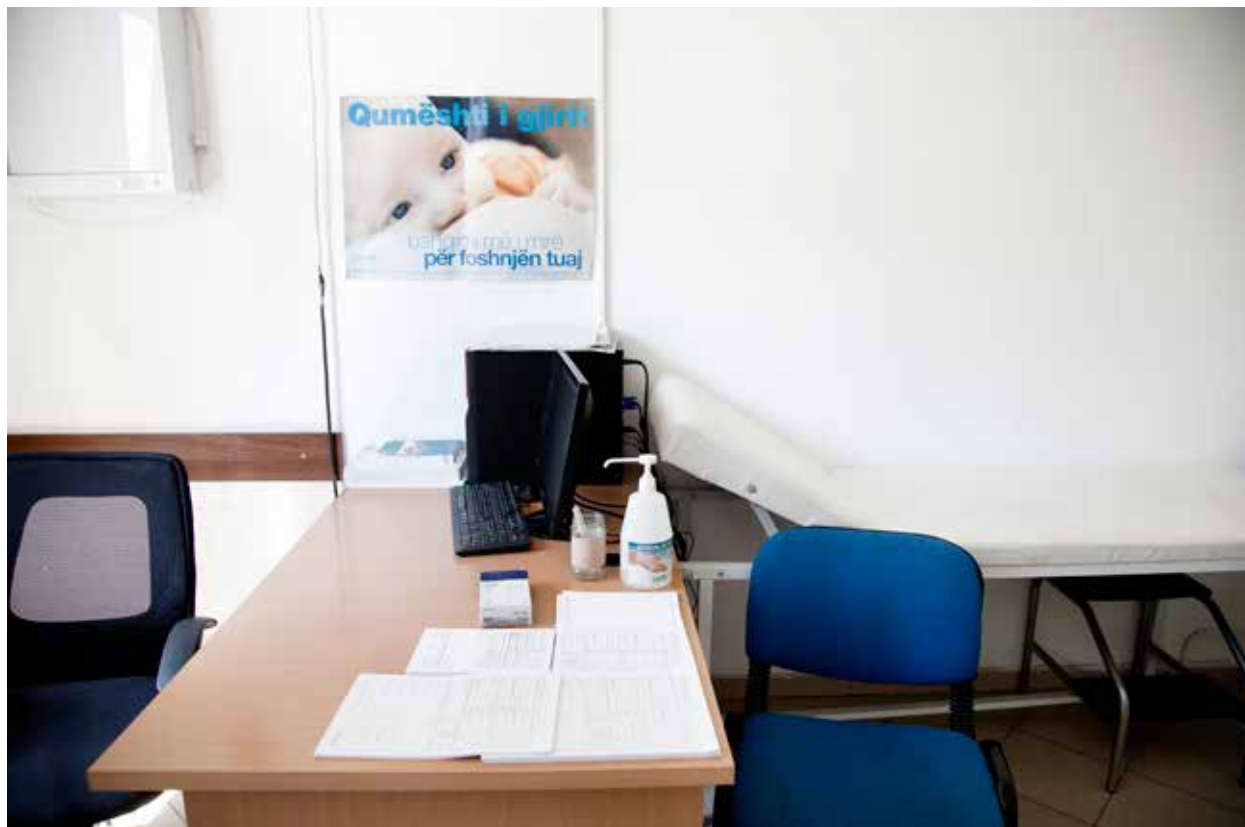
Inclusion criteria for patients accessing the selected facilities and receiving consultation were:

- Patients, 18 years or older or accompanied by a legal representative, accessing the facility and received a consultation from a health provider
- Oral informed consent provided by the patient or his/her legal representative (mother/father/care-taker)
- Accessing the facility to receive services either for themselves or their accompanying minors

3.3 Sample size and sampling strategy

Sampling of health facilities

We applied a random proportional-to-size sampling procedure for each of the domains assuming that the facilities will be allocated to urban and rural areas proportional to the size of urban and rural populations in the region. The number of daily visits in January 2016 is considered a proxy of daily attendances.



Sampling of providers for provider-client observations

All provider-patient consultations, for which informed consent could be obtained from the patient, were observed in each health facility¹. “Provider” hereby only refers to medical doctors (see inclusion criteria). A health-care provider could but didn’t have to be observed repeatedly.

Sampling of patients for exit interviews

For the exit interviews, all patients that received care for themselves or a child in their care at the facility were to be interviewed for the exit interview, provided they gave consent². The patients included for exit interviews did not necessarily need to be the same as for the provider-patient observation (see inclusion criteria).

The exit interview also contained a limited number of questions on the knowledge attitude, practice and behaviour (KAPB) regarding acute respiratory infections (ARI), diarrhoea and non-communicable diseases, specifically diabetes and hypertension. Exiting persons, who have consulted the health facility for antenatal care, child health and/or immunization were questioned about ARI and diarrhoea. All other persons exiting were asked about the KAPB on NCDs.

1 Depending on the capacity of the data collectors

2 Depending on the capacity of the data collectors

3.4 Data collection and analysis

Before data collection, relevant authorities, specifically Directors for Health and Social Welfare (DHSW) as well as managers of all selected facilities in all surveyed Municipalities were informed about the study, its purpose and its schedule.

The data collection team consisted of 12 data collectors, divided into 6 sub-teams. Most data collectors had a background in medical training and public health and previous survey experience. Wherever possible, we strived to obtain a gender balance within the sub-teams (1 female, 1 male). Each sub-team was assigned to a set of designated facilities where they conducted the assessments. The sub-teams were closely monitored by the local study coordinator and supervisors. Data collection in the field lasted 10 working days: from 25 April 2016 until 10 May 2016.

The following procedures were followed at each facility:

- 1) Introduction of purpose and procedures of the survey to the targeted service providers.
- 2) Data collection
 - Starting with provider-patient observations and exit interviews with patients conducted at the facility
 - Exit interviews with clients were conducted in an appropriate location ensuring privacy and confidentiality
 - Structural attributes related to infrastructure and management were assessed after the consultation hours in the afternoon

Data collection was performed electronically using the Open Data Kit (ODK)³ software on tablets. During and after each day of data collection, the local study coordinator and the supervisors conducted quality assurance.

During the analysis of the obtained data, full confidentiality of respondents was assured. Data was analysed using Stata Statistical Software v12.1. To calculate the overall scores for each attribute, weights reflecting the relative importance of each indicator were assigned. These weights were determined based on professional judgments as well as the experience of other similar studies.

3.5 Ethical considerations

Before the interviews and observations, participants were given an information leaflet and asked for their consent. For this, participants were informed that a) their participation is voluntary, b) they can withdraw from participation at any time without any consequences, c) non-participation will not have any negative effects. Participants were also informed how the data will be used and that confidentiality is ensured as no names or other identifying aspects will be collected.

Ethical clearance was obtained from the Board for Ethical-Professional Supervision on 13th April 2016 (Reference Number: 02/2016).

3 Open Data Kit (ODK) is a free and open-source set of tools for mobile data collection solutions. <https://opendatakit.org/>

4. Results

4.1 Infrastructural assessment

The following section outlines the results of the infrastructural assessment, which was conducted in 40 facilities - 12 Main family medical centres and 28 family medical centres. ³Facilities were primary healthcare centres from the Serbian speaking part of Kosovo.

All but two assessed facilities had a doctor present during five or more days a week, for the remaining two facilities, one had a physician for 3-4 days a week and the other for 1-2 days a week. Services provided by facilities included family planning, antenatal care, immunization, child health services (preventive and curative) and adolescent health services, services around NCDs and some laboratory services.

The infrastructural assessment included sections on the overall cleanliness and maintenance, hygiene aspects, public accountability/transparency (including the display of the health centre's contact numbers, tariffs, information about the governmental complaint hotline, feedback mechanisms, and the absence of pharmaceutical logos on posters etc.), availability of guidelines and materials, general medical equipment and the availability of drugs and medical products. Specifically for medical equipment we assessed not only their availability but also whether they were functional. We therefore calculated an additive index including all items assessing the infrastructure and calculated how many scores out of all possibly infrastructure scores were achieved per facility.

The overall infrastructure scores for individual facilities range between 32% and 90%. The infrastructure appears slightly better in MFMCs compared to FMCs. The differences are not statistically significant. The mean infrastructure score over all facilities is 56.8%.

4.1.1 Facility infrastructure and overall cleanliness

Overall facilities were clean (92.3%) and have designated waiting rooms or areas (87.2%). Waiting areas were clean (97.4%) privacy was well ensured in the consulting rooms (97.4%) which leave an overall tidy impression (89.7%) and are well illuminated (92.3%). The shelves in the facilities were filed and ordered (97.4%) and 77% of facilities have a patient record system. In all infrastructure and cleanliness parameters, MFMCs score higher than FMCs. Between facilities, the scores varied between 40% and 100%.

All facilities have electricity (100%) but more than 8 out of 10 facilities (84.6%) experienced power cuts during the 7 days prior to the assessment. These power cuts were reported to occur during specific times of the year (82%), mostly in winter (63% of all who reported seasonal power outages) or during renovation/work (9% of "seasonal" power outages). 21 facilities (54%) had a functional generator, for 95% of which fuel was available during the day of the assessment.

Less frequent were separate consulting rooms for women (46.2%) and children (41%), which were, however, significantly more common in MFMCs (82%) compared to FMCs (32%). The same holds true for a functional heating system which was available in 100% of MFMCs and 54% of FMCs. The most common heaters were central heating systems followed by oil heating and heating fuelled by wood or electricity.

In terms of communication and electrical devices, 82% of facilities have functional communication equipment (50% private cell phones of the staff, 32.5% facility cell phones and 37.5% landline phones). However, only 39% of FMCs had any non-private, facility owned phones as compared to 92% of MFMCs. More facilities had internet access (59%) than computer (54%) or printer (41%) and all facilities with internet access had at least 1 hour of internet the week before the assessment.

4.1.2 Hygiene

All but one facilities have tap water and 82% also have warm tap water out of the tap. Water shortages during specific times of year are common in about three quarters of the facilities (63%), most commonly in summer (58%) but also in winter (17%). For such instances facilities use bottled water (50%) or store water in a tank (36%) or fetch it at the nearest neighbour.

Most facilities have proper waste disposal. Properly maintained bins for general waste were available and well maintained in 87.2% of facilities, special containers for medical waste were available in 89.7%, for sharp waste in 87.2% and for infectious waste in 74.4% of facilities. Temporary storage possibilities for infectious waste were found in 82.1% and for sharp waste in 84.6% of facilities, whereas the collection of these special wastes was assured in 79.5% (infectious waste) and 82.1% (sharp waste) of facilities. Disinfectants and antiseptics could be found in 69% of facilities, however, disinfectants for instruments such as chlorine solution were found in all necessary rooms in only 21% of facilities. Toilets for patients (80%) and staff (92%) were widely accessible although toilets were clean in only 82%, had washing points in 87%, and soap in only 54% although these are considered basic principles of hygiene.

4.1.3 Public accountability / transparency

Facilities were reasonably easy to find and opening hours are well displayed in 87% of cases. Information on fares (77%) as well as information about the patient's rights and responsibilities, the complaint hotline number (61%), and information about tobacco control (90%) were visible in most facilities. Positively noted was also, that 80% of facilities had a mechanism for feedback on the service.

Nevertheless, we identified several shortcomings where facilities have not been transparent: Most worryingly almost a quarter of facilities (23%) displayed logos/trademark of pharmaceutical companies despite the fact that this is forbidden. Also, contact phone numbers are not often displayed (only in 33%), and facilities do not consistently display detailed information on the functioning of the MoH complaints hotline (46%). Explicit referral or emergency mechanisms were in place in only 39% of facilities. None of the indicators were statistically significant between municipalities.



4.1.4 Guidelines and material

We observed considerable variations in the availability of guidelines and protocols (i.e. therapeutic guidelines, list of essential drugs, health promotion- and vaccination calendar, and awareness materials) between facilities.

The mean score is 61% but differs significantly between facility types and variation is substantial. In FMCs the availability ranged from 0 to 100% and in MFMCs from 80 to 100%.

4.1.5 Basic/essential medical equipment and supplies

Below we outline the available and functional equipment at facility and municipality level. For the analysis, we treated equipment that was available but not functional as if that item was not available. Dysfunctional equipment was not common but still occurred in one or two facilities for each equipment item.

General medical equipment (available and functional)

Overall we investigated 38 general medical equipment items. The results indicate that there are considerable differences in the availability of general medical equipment between the different municipalities. No piece of equipment was functionally available in all facilities. Even such crucial equipment as a thermometer or a stethoscope (either for adults, children or foetuses) was available in only 85% and 90% of facilities respectively.

The following equipment items were available and functional in less than 50% of facilities: children growth chart (36%); Snellen eye chart (49%), ear syringe (36%), table for vision testing (49%), tuning fork (5%), height meter for children >2 years (46%), height meter for children <2 years (36%), pulse oximeter (41%), pelvimeter (15%), fetoscope (33%), stethoscope for children (39%), sphygmomanometer (23%), neurological hammer (33%), head light (5%), pen light (49%), peak flow meter (31%), Doppler (26%), ophthalmoscope (36%), otoscope (49%), nasal speculum (23%), Microsurgery equipment (41%). Only 9 items were available and functional in more than 80% of facilities: nebulizer (85%), stethoscope for adults (90%), refrigerator (87%), portable vaccine refrigerator (82%), thermometer (85%), scissors (90%), and tongue depressor (90%).

Gynaecological service equipment

The mean score for gynaecological equipment was 52%. Hardware, i.e. gynaecological bed, instruments or oxygen tank were available in 33%, 26% and 62% of facilities, respectively.

Different sizes of vaginal speculums can be found in less than 30% of facilities and pap smear materials in only 5%. Latex gloves (82%) and masks for doctors (72%), on the other hand, were more common. With the exception of gloves and masks, the availability of all these items were significantly different between MFMCs and FMCs.

Delivery set and advanced equipment

In total, 6 facilities (3 MFMCs and 3 FMCs) from 40 municipalities had delivery sets available. Of these, 5 delivery sets were sterile and two sets had all 16 assessed items included in the delivery set. In three delivery sets more than 60% of the items were included and in one set 56% of items were present. The following items were included in all delivery sets: Scissors, sterile gauze, needles and needle bearer, sterile surgical gloves, and syringes. The advanced equipment i.e. EKG, autoclave, photometer, centrifuge was available in 72%, 87%, 23%, and 46% of facilities, respectively.

4.1.6 Equipment to assess and monitor child growth

We observed a very low availability of 10 equipment items to assess and monitor child growth. In most facilities, not one of the items was present whereas in the facilities with at least some of the items, on average only 4% of items were available. 3 facilities had building blocks, 2 facilities had a rattle, 1 had a simple book, 1 had pencil and paper, 5 had a doll, 1 a hairbrush, 2 a plate and spoon, 1 a cup, and none of the facilities had a small puzzle or a sheet with stripes and shapes.

4.1.7 Medication and medical products

We assessed the availability of 53 medical products and drugs in the facilities and observed variations between 29% and 100%.

Only hydrophilic cotton, bandages and Adrenaline/Epinephrine were available at all facilities. Atropine sulphate (18%), Mannitol solution (13%), Antivenom (10%), Morphine sulphate (18%), emergency contraceptives (10%), Atenolol/Metoprolol (15%), Butylbromide/Buscopan (8%), Magnesium Sulphate (8%), suture material (10%) and Potassium Iodine (13%) were available in less than 20% of facilities, whereas Ranitidine (87%), Spilitus/70% Alcohol (90%), plastic perfusion system (92%), gauze (94%), oxygen (69%), Glucose Solution (90%), Amoxicillin (77%), surgical gloves (69%), Iodine solution (97%), needles (97%), syringes (97%), Salbutamol (69%), Diclophenac (95%), Paracetamol (72%), Metoclopramide (90%), Dexamethasone (97%), Sodium Chloride solution (92%), Furosemide (95%), Diazepam (97%), Dextrose solution (77%) and water for injection (92%) were available in the vast majority of facilities.



4.2 Clinical Observations

The clinical observations questionnaire assessed doctors adherence with different standards and protocols related to (1) principles of clinical history and physical examinations, (2) hygiene and infection prevention and control, (3) clinical assessment of a diabetes mellitus patient, (4) clinical assessment of a patient with arterial hypertension and (5) clinical assessment of a patient with other condition than diabetes mellitus or hypertension.

4.3 Number of observations and demographic profile of patients

Overall we conducted 1'013 clinical observations, thereof 566 in MFMCs and 447 in FMCs. The average number of observations per facility was 26 (min: 0; max: 112) with a lower average number of observations in FMCs compared to MFMCs (17 vs. 47). Most patients (67%) addressed to the facility for reasons other than hypertension (14%) or diabetes (3%) and 16% came for a referral. Visits for diabetes and hypertension related issues were more prevalent in MFMCs (65% of diabetes visits and 64% of hypertension visits). The average age of patients was 46 years (median 47) and the proportion of children under the age of 18 who attended the facilities with a parent or caretaker was 13% (128 children). Consultations involving children were observed significantly more often in FMCs than in MFMCs (Fischer exact test $p=0.00$). The proportion of male and female patients was equal in all facility types.

Combining all different aspects of clinical treatment (adherence to good clinical practice, hygiene and adherence to treatment guidelines, specifically for diabetes and hypertension) we observe small but statistical significant differences between municipalities but not between FMCs and MFMC.

4.3.1 Principles of clinical history, physical examination and infection prevention

There is a small but statistically significant difference in the overall adherence to principles of good clinical practice and physical examination between facility types with FMCs scoring higher than MFMCs (76% vs. 70%). The differences between municipalities are also significant. The mean score over all facilities is 73%. Only the availability and use of patient records is very low with only 12% of MFMC and a little more (36%) in FMCs.

Between municipalities there is considerable variance in the adherence to individual indicators. Only the greeting of the patient and the polite closure of the session was consistently done in all municipalities. For all other indicators the municipalities performed significantly different.

Table 1: Adherence to principles of history and physical examination by facility type

	Overall (n)	MFMC % (n)	FMC % (n)
The medical doctor			
... greets the client	98.1% (994)	98.1% (555)	98.2% (439)
... sees the client in privacy/confidentiality	79.2% (802)	80.7% (457)	77.2% (345)
... makes the client comfortable (e.g. seat offered)	96.5% (978)	97.5% (552)	95.3% (426)
... asks the client about concerns, allows client to explain his/her health issue	96.1% (973)	96.3% (545)	95.8% (428)
... has the patient record	22.5% (228)	12.0% (68)	35.8% (160)
... uses the patient record during consultation	21.8% (221)	11.1% (63)	35.4% (158)
... documents consultation in patient record (of all who have the patient record)	91.2% (208)	83.8% (57)	94.4% (151)
... closed politely the consultation	98.3% (921)	98.8% (497)	97.7% (424)

Very few measures for the prevention and control of infection were applied during the observed consultations. Over all facilities, on average only 7.8% of infection control measures were employed.

Table 2: Infection prevention and control

	Overall	MFMC %	FMC % (n)
The medical doctor			
... washes hands before the procedure	4.8% (38)	6.4% (28)	2.9% (10)
... washes hands after procedure	3.8% (30)	5.1% (22)	2.3% (8)
... applied proper decontamination procedures	35.3% (89)	25.5% (36)	47.8% (53)
... puts on gloves where required	7.8 (10)	7.6% (7)	8.3% (3)
... puts on a mask where required	7.8 (7)	5.5% (3)	11.4% (4)

4.3.2 Patients with diabetes

Of all 1'013 clinical observations, 31 were with diabetes patients. Twenty of these consultations took place in MFMCs and 11 in FMCs.

In all observed consultations, the average score of adhering to diabetes treatment guidelines (including examinations, questions and advice) was 36%.

The weighted average scores (percentages) for all observations were best for giving advice (41%) and asking questions (34%) and very low for conducting exams (20%).

Looking at the different items we identified that the most frequently asked questions were about diabetes treatment adherence (92% of 31 applicable cases), specific health complaints (81%), using other medication (58%) sedentary lifestyle (39%), urine discharge (32%), and appetite (19%). Questions on smoking, alcohol, vulvovaginitis/pruritus, visits to an ophthalmologist, or about eye-sight were raised in less than 15% of observations.

While the doctor explained about test and procedures in 14 consultations (45%), few physical examinations were conducted. With the exception of taking the blood pressure (68%), chest and heart examinations (16% and 26%, respectively) examinations were carried out in less than 10% of cases.

The majority of physicians gave advice, explanations or instructions on: prescribed medication (89%), the situation and diagnosis (81%), if applicable: the results of the examination(s) (77%) and necessary follow-up visits (61%) as well as nutrition and weight loss (58%). Explanations about the prognosis (55%), needed examinations (55%), and the importance of treatment adherence (48%) were given by about half the physicians. Information about self-monitoring and prevention of hypoglycaemia (35%), health risks if diabetes if not treated (32%), potential complications of hypoglycaemia and how to treat it (23%), physical exercise (26%), how to take care of legs (26%), potential complications of the illness (23%), alcohol (6%) and smoking (6%) were only given during one third of consultations or less.

Table 3: Average achieved percentage out of all diabetes items

Diabetes	Overall n = 31	MFMC (95% CI) n = 20	FMC (95% CI) n = 11
The medical doctor			
Asks questions	37.0% (28.7 - 45.2)	35.4% (24.3 - 46.5)	39.9% (27.8 - 51.9)
Conducts examination	21.9% (14.7 - 29.0)	24% (14 - 33.8)	18.2% (8.9 - 27.5)
Advices, explains and instructs	43.1% (35.2 - 51.0)	40.6% (29.2 - 51.6)	47.7% (38.6 - 56.8)

4.3.3 Patients with hypertension

Of the 1'013 clinical consultation, we observed a total of 143 consultations from hypertension patients in all municipalities, thereof 91 (64%) in MFMCs and 52 (36%) in FMCs. **The average score for hypertension-related quality of care over all our observations was 33%.**

The weighted average scores (percentages) best for giving advices and asking questions (37% each). For conducting examinations a weighted average score of 22% was achieved.

Among all questions the most asked concerned treatment adherence (90% of 136 relevant cases) and high blood pressure (89% of 110 relevant cases). The general question about any specific health complaints was asked in 121 of all 143 consultations (85%). Less often questions were asked about the use of medication (68%), headaches (48%), sedentariness (16%) and smoking (15%). Rarely questions were asked about the

use of contraceptives (1 single case out of 65 applicable cases = 1.5%), eyesight (9%), alcohol (3.5), and the visit to an ophthalmologist (0.7%).

Physical examinations were conducted in all but two consultations with hypertension patients. The most common examination was checking the blood pressure (98%) whereas all other examinations were less often conducted: auscultation of the heart in 19%, chest and auscultation of lungs in 15%, skin, mucus, lymph nodes, ears nose and thyroid glands in 13%, weight measurements in 5%, eyes in 4%, examination of abdomen and liver also in 4% and examination of pulse and perfusion of legs in 3% of cases. An explanation of the procedure by the physician was given in 48% of cases.

Advice and explanations were given in 97% of observed consultations, mostly about prescribed medication (90%), the result of the examination (83%) and the general situation and diagnosis (84%) followed by the need for follow-up visits (58%), treatment compliance (57%), nutrition (41%) needed examinations (41%), the prognosis (41%), the signs of hypertension (28%) and extreme hypertension (22%) and the need for a referral (39% of 46 applicable cases). Issues related to the risks of the untreated disease (18%), complications of hypertension (16%), exercise (14%), smoking (13%) and alcohol (4%) were less often explained. Oral contraceptives did not come up in a single observed consultation (out of 65 cases where it would have been applicable).

Table 4: Average achieved percentage out of all hypertension items by facility type

Arterial hypertension	Overall n = 143	MFMC (95% CI) n = 91	FMC (95% CI) n = 52	p-value**
The medical doctor				
Asks questions	37.0%* (36.5 – 41.7)	37.6%* (35.5 – 42.4)	37.1%* (35.6 – 43.3)	0.849
Conducts examination	21.5%* (20.6 – 25.5)	22.2%* (20.8 – 27.3)	20.1%* (17.9 – 24.8)	0.291
Advices, explains and instructs	36.9%* (35.2 – 41.8)	37.7%* (35.6 – 44.4)	35.4%* (31.3 – 40.6)	0.247

*weighted ** student t-test

4.3.4 Patients consulting for other reasons than diabetes or hypertension

A total of 839 (83%) patient consultations were observed with patients who consulted the physicians for reasons other than arterial hypertension or diabetes. Of these 839 patients, 158 (19%) came for a referral. There is a significant discrepancy in the average score for the quality of care between patients who consulted the physician for another disease (77%), and patients who consulted the physician for a referral (52%) ($p=0.000$). The variation of the average score was huge in patients attending for a referral, ranging from 0 to 100%.

In the following sections we will focus on the results from observations with patients who consulted the doctor for issues other than diabetes or hypertension followed by the scores from referral consultations in brackets.

The weighted average score for asking questions was 88% (referral: 65%), for conducting examinations as required 90% (referral: 63%), and 67% (referral: 45%) for providing advice and instructions. The average scores on relevant questions, the conduct of examinations and the provision of advice don't differ between facility types but do differ significantly between different municipalities ($p<0.05$).

In total, 98% (referral: 83%) of doctors listened to the client and responded to their questions. 93% (referral: 78%) of physicians took the patient history and 94% (referral: 67%) asked open questions during the anamnesis. The inquiry about the intake of medication was made during 74% of consultations (referral: 53%).

Table 5: Average achieved percentage of other illnesses

Other diseases and referrals	Overall	MFMC (95% CI)	FMC (95% CI)	p-value**
The medical doctor				
Asks questions	88.4%* (86.4 – 90.3)	88.0%* (84.4 – 91.5)	88.9%* (87.5 – 90.2)	0.584
Conducts examination	90.1%* (89.1 – 91.1)	90.1%* (88.8 – 91.4)	90.2%* (86.9 – 93.4)	0.167
Advices, explains and instructs	67.3%* (65.7 – 68.9)	68.5%* (64.3 – 72.8)	65.6%* (63.0 – 68.3)	0.212

*weighted ** student t-test

In 95% (referral: 65%) of consultations necessary physical examinations were carried out, these examinations were explained in 85% (referral: 65%) of consultations. To 85% (referral: 87%) of examined patients the examination results were explained, likewise the situation and diagnosis was explained to 85% (referral: 52%) of patients, and the prognosis to 49% (referral: 28%). Explanations about needed exams were given to 63% (referral: 55%) of patients and on follow-up visits to 65% (referral: 40%) of patients. Information about the referral was given to 86% (53%) of applicable cases and about prescribed medication to 95% (referral: 65%) of cases. Finally, explanation about risk factors and health education was provided to 71% (referral: 53%) of patients.

4.4 Exit Interviews

4.4.1 Respondents socio-economic profile

Overall 825 persons exiting the health facilities were approached for the survey. Of these, 50 were not eligible for participation (e.g. family members accessing services on behalf of other family members (28) or children under the age of 18 (22) without their caretaker present). Another 87 individuals did not consent to participation leading to a net sample of 716. Of the 716 completed exit interviews, 57% (410) were conducted in MFMCs and 43% (306) in FMCs. On average, 18 exit interviews were conducted in each facility (range 2 – 82). It is important to note that all indicators in this section are indicators self-reported by the patients and not observed by the investigators.

Table 6: Socio-demographic attributes among respondents of exit interviews

	MFMC % (n)	MFMC % (n)	FMC % (n)
Number of interviews	57.3% (410)	42.7% (306)	100% (716)
Women	49.3% (202)	49.4% (151)	49.3% (397)
Education			
Never attended school	10.5% (43)	7.8% (24)	9.3% (67)
Completed lower primary school	10.8% (44)	11.8% (36)	11.2% (80)
Completed primary school	28.9% (118)	26.5% (81)	27.8% (199)
Completed high school	41.6% (170)	42.8% (131)	42.1% (301)
Completed college / university	7.8% (32)	10.8% (33)	9.1% (65)
Other	0.5% (2)	0.3% (1)	0.3% (1)
Occupation			
Farmer	1.7% (7)	2.0% (6)	1.8% (13)
Employed	11.3% (46)	14.4% (44)	12.6% (90)
Self-employed	1.5% (6)	1.6% (5)	1.5% (11)
Housewife	27.1% (111)	27.5% (84)	27.3% (195)
Governmental employee	0.5% (2)	2.0% (6)	1.1%(8)
Unemployed	22.3% (91)	22.2% (68)	22.2% (159)
Pensioner	26.2% (107)	24.84% (76)	25.6%(183)
Pupil/Student	3.1%(22)	1.4%(10)	4.5% (32)
Other	2.4% (17)	1.0% (7)	3.4% (24)
Economic or social aid	27.6% (113)	35.6% (109)	31.1% (222)

4.4.2 Satisfaction with health services

Most patients reported to have visited this health facility more than once in the three months prior to the exit interview (1-3 times: 44%; more than 3 times: 35%) with significantly more patients reporting prior visits in MFMCs than in FMCs. The most common reasons for the visit were reasons other than chronic conditions (28%), antenatal care (0.3%), child health (6.7%) or immunization (1.1). These “other” conditions included: follow up visits to discuss results of former visits, routine or follow-up check-ups, various types of pain incl. back pains, abdominal pain, headaches, etc., injuries, acute infections, rashes, injuries and wounds, allergies, eye problems, general counselling, breathing problems, dental problems, kidney stones, surgical issues, fractures, etc..

Table 7: Frequency and reason of visit of exit interviews

	MFMC % (n= 410)	FMC % (n= 306)	Total % (n=716)
Excluding today: How often did you over the past 3 month access this HC?			
did not access this HC in the past 3 months	19.5%	22.9%	21.0%
1-3 times	41.7%	48.0%	44.4%
more than 3 times	38.8%	29.1%	34.6%
What was the reason for your consultation today?			
Chronic condition	31.5%	23.5%	27.8% (199)
Antenatal care	0.2%	0.3%	0.3%
Child health	6.3%	7.2%	6.7%
Immunisation	1.22%	1.0%	1.1%
Other	60.7%	68.0%	63.8%

85% (n=610) of patients reported that the physician conducted an examination during the consultation, 87% (625) received a prescription and 8% (n=59) received other services.

We calculated the reported “quality of care and satisfaction” as an additive index of indicators, i.e. calculating the number of services the patient was satisfied with out of the total number of services the patient could have been satisfied with. **The general reported quality of care and satisfaction over all interviews was high with an average score of 92.5%.**

To the actual question how satisfied patients were with the received services, 92.5% answered with satisfied (53%) or very satisfied (39%). Only 7.6% of patients reported to have been unsatisfied (3.4%) or very unsatisfied (4.2%). There were no statistically relevant differences in reported satisfaction between women and men but a statistically significant difference between facility types with MFMCs scoring lower than FMCs (10.3% unsatisfied in MFMCs vs. 3.9% in FMCs).

Table 8: Satisfaction with different aspects of health service - exit interviews

	Total % (n)
patient was given the opportunity to explain the health problem	96.9(694)
patients privacy was ensured	92.7 (664)
doctor explained the questioning and physical examinations and the health problem***	96.9 (591)
doctor explained the intake of prescribed medicine**	95.5 (597)
doctor asked if patient currently takes prescriptions	76.5 (548)
patient was given chance to ask questions about the investigation, health problem and treatment	95.0 (680)
doctor listened carefully to patients concerns and questions and gave satisfactory answers	96.8 (693)
patient got advice on health problem	92.0 (659)
medical doctor was polite during consultation	99 (709)

* weighted

4.4.3 Health insurance and health spending

The analysis revealed that a total of 508 (71%) patients did not pay for the consultation.

Of these 55 (11%) did not pay because they had health insurance. Other reported reasons an individual didn't pay for the consultation were: children and students are treated for free as are retired persons, veterans and handicapped individuals, some services are for free (i.e. certain pregnancy-related consultations as well as some diabetes-related treatment and routine examinations). Some people reported that they had this examination in their social assistance booklet and it was thus for free.

4.4.4 Satisfaction with health services among people who receive social or economic aid

Among the exit interviews we analysed differences among people receiving social or economic aid and others as well as differences that might appear between the municipalities in how economically or socially disadvantaged people are feeling satisfied with different aspects of the consultations.

Overall we could not identify major differences between the general population and those receiving social or economic aid. Although for the question of the intake of medication, the explanation about the examination, and the asking of questions differed statistically significantly, the margin of this difference was too low to be of importance (ca. 94 vs. 97%).

Individuals receiving economic or social aid paid for the consultation in 5% of cases versus 40% of individuals without such aid ($p < 0.000$)

Of all individuals who did not pay for the consultation, 7.7% (55) did not pay because they had health insurance. There was only a slight difference in the frequency of health insurance between non-paying patients with economic aid (6.5%) and non-paying patients without economic aid (10.4) whereby it was more common for individuals with financial aid to not have to pay due to health insurance ($p < 0.000$).

4.4.5 Knowledge attitudes and practices

A total of 564 participants (79%) who conducted the exit interview agreed to answer some questions pertaining to the knowledge, attitudes and practices. 54% of these were male and 56% female. On average 15 persons answered these questions per facility (range 1 to 58)

For the knowledge attitude and practice we calculated a summary measure the same way as for the previous indicators analysing whether people correctly identify signs, causes and/or prevention measures of Diarrhoea, acute respiratory infections and/or non-communicable diseases.

Acute respiratory infections (ARI):

The mean score for the knowledge attitudes and practices towards acute respiratory infections (ARI) of all patients responding to the corresponding questions (n=38) was 40%. We asked participants about the signs and symptoms of acute respiratory infections as well as questions pertaining to their behaviour regarding smoking in front of children.

The patients identified on average of 16% of possible signs and symptoms for ARI, and 43% of causes. There were no differences between men's and women's level of knowledge around the signs and symptoms and little differences between participants who visited the facility for different reasons.



More than 52% of respondents report that their children are exposed to smoke more than several days a month (26% every day, 19% several times a week and 8% several times a month) only about 37% of respondents claim that their children are not exposed to smoke. The vast majority (84%) of people agree that knowing the signs and symptoms of ARI will enable them to seek medical help sooner and that smoky surroundings have an effect on whether or not a person contracts pneumonia (84%).

Diarrhoea:

A total of 38 patients responded to the questions about their knowledge, attitudes and practices towards diarrhoea. These 38 achieved an overall score of 51% and were able to identify on average 43% of causes for diarrhoea, 32% of prevention measures and 63% had chosen good measures for the treatment of previous diarrhoea cases of their children (i.e. visiting a doctor, giving liquids and getting medication from a pharmacy or a doctor). Food made from grains, eggs, and meat were the foods most often eaten (50% or more) by children in the 24h prior to the Exit interview.

Non communicable diseases:

In total, 526 patients answered questions concerning non communicable diseases. The average score on all knowledge and attitude items (identified risk factors and believes about overweight, smoking, and healthy lifestyle) was 13%. The same score was achieved for the knowledge on the risk factors for NCDs where 13% of risk factors for cardiovascular diseases, heart attacks, and diabetes were correctly identified. In total, 21% of participants reported that they had undertaken changes to improve their health and 52% that they are motivated to change their lifestyle.

Nevertheless, 91% disagree with the statement that overweight people are healthier, 93% disagree that smoking has no negative health effects, and 69% that changing the lifestyle will change the health in future. Another 72% disagrees that they cannot influence their own health.

5. Conclusions

In our quality of care assessment we investigated three dimensions: structural attributes, process attributes and outcome attributes approximated by patient satisfaction and reported occurrence of processes related to the quality of care. We identified variations between and within the different municipalities but less so between MFMCs and FMCs.

Infrastructure

The infrastructure assessment revealed some major weaknesses and shows that there is some variation of the different infrastructure categories between the municipalities.

In general, facilities were clean and provided accurate privacy during consultation despite the limitation that there are often no special consultation rooms for women or children. A designated waiting area was mostly available.

Some facilities could benefit from introducing a patient record system.

All facilities have access to electricity although there are frequent power-cuts in almost all facilities mostly in winter and only about half of the facilities had a generator as backup for power-outages. Equipping facilities with a functional generator would be necessary to prepare the facilities for power cuts. Functional heating systems were available in 1/3 of facilities mostly in the form of central oil heating or wood-based heating. To ensure proper care during winter time it would be necessary to provide some heating to the facilities.

Some possibilities for communication was available in most of the facilities (82%). However, only in 46% of facilities this consisted of non-private cell- or landline phones. Interestingly, the availability of an internet connection within the facility was more common than the availability of a computer and within the facilities with internet connection, it was available for at least 1 hour in the week prior to the assessment.

Some limitations appeared in terms of water supply which is generally available but with frequent shortages both in summer due to water scarcity and in winter due to problems with the pump during power outages. Tap water supply should be ensured in the 18% of facilities which don't currently have access to tap water. In so far as the problem with the pumps in summer is on the level of the health facility itself, a functioning generator could alleviate the problem of water shortages in winter.

Waste disposal and collection was generally adequate, only the temporal storage and collection of infectious waste could be improved. One important observation was that appropriate disinfectant for instruments (e.g. chlorine solution) was often not available in all of the necessary places. Although 82% of toilets were clean, there is definitely room for improvement. Also because washing points were not available near all toilets and if they were available, soap was available only half the time. Cleanliness of toilets and hand washing with soap belong to basic hygiene principles and should be ensured in all facilities.



Regarding public accountability/transparency information was provided to varying degrees. opening hours and fares were provided in many facilities as was the number of the complaint hotline of the Ministry of Health and health information on smoking. A feedback mechanism was available in 80% of facilities and trademarks of pharmaceutical companies were seen in only some hospitals (23%). However, the visibility of contact numbers as well as referral mechanisms could be improved.

Concerning the availability and functionality of basic medical equipment, there were huge variations both in MFMCs as well as in FMCs. Not one single piece of general medical equipment was available at all facilities. Even such basic equipment as a thermometer, scissors and a stethoscope could not be found in all assessed facilities.

Availability of gynaecological equipment differed significantly between facilities. Delivery sets were very rare and could be found in only 6 facilities. Of the available sets, 1/3 was complete, and all had more than 50% of the necessary items in the delivery set. Different sizes of speculums as well as pap smear equipment would help improve gynaecological service.

Encouragingly a majority of facilities had an EKG and an autoclave and even a centrifuge was available at 46% of facilities.

Very pronounced is the lack of equipment to assess and monitor child growth. Whilst these would be not very costly investments, only two FMCs and less than 40% of MFMCs had any of the required items. Additionally, it could be seen that children under the age of 18 years are probably disproportionately affected by differences in the infrastructure between rural and urban facilities. Compared to adult patients in the sample, of which only ca. 30% accessed rural facilities, children were accessing rural facilities in about half of the cases in the sample.

Essential medication for basic services varies greatly between facilities. Of the assessed 53 medical medicines we observed variations between 29% and 100%.

The results of the infrastructural assessments show that simple improvements can greatly improve the quality of care.

Clinical Consultations

Adherence to principles of good clinical practice and physical examination were extremely variable ranging from 29 to 100% with an average of more than 70%. Doctors were very polite and greeted and dismissed the patient appropriately. Confidentiality was not always adequately ensured but the patients were nevertheless made comfortable. Regretfully, patient records were rarely employed during consultation.

Adherence to necessary infection prevention and control measures during the clinical consultations was critically low. Hand washing with soap before or after the examinations was performed in less than 5% of examination although it is one of the most basic behaviours during clinical consultations. Even measures designed as much for the own security of the physician such as wearing masks and gloves when necessary were rarely seen. Appropriate decontamination procedures were a little more common yet far from sufficient.

The adherence to general diabetes treatment guidelines was likewise very low. In the majority of cases not even half of the expected questions were asked during the anamnesis. Necessary examinations were performed even less often.

Patient Satisfaction

In general, the score for patient satisfaction and reported quality of care (including received services) was very high. The same is true for the reported satisfaction of the patient where 53% reported to be satisfied and 39% very satisfied.

Knowledge attitudes and practices

Patients did not know much about the symptoms, causes and prevention of acute respiratory infections, diarrhoea or NCDs. Merely prevention measures for diarrhoea were known and treatment decisions for diarrhoea were taken with a sound approach (visiting a doctor, giving liquids and getting medication from a pharmacy or physician).

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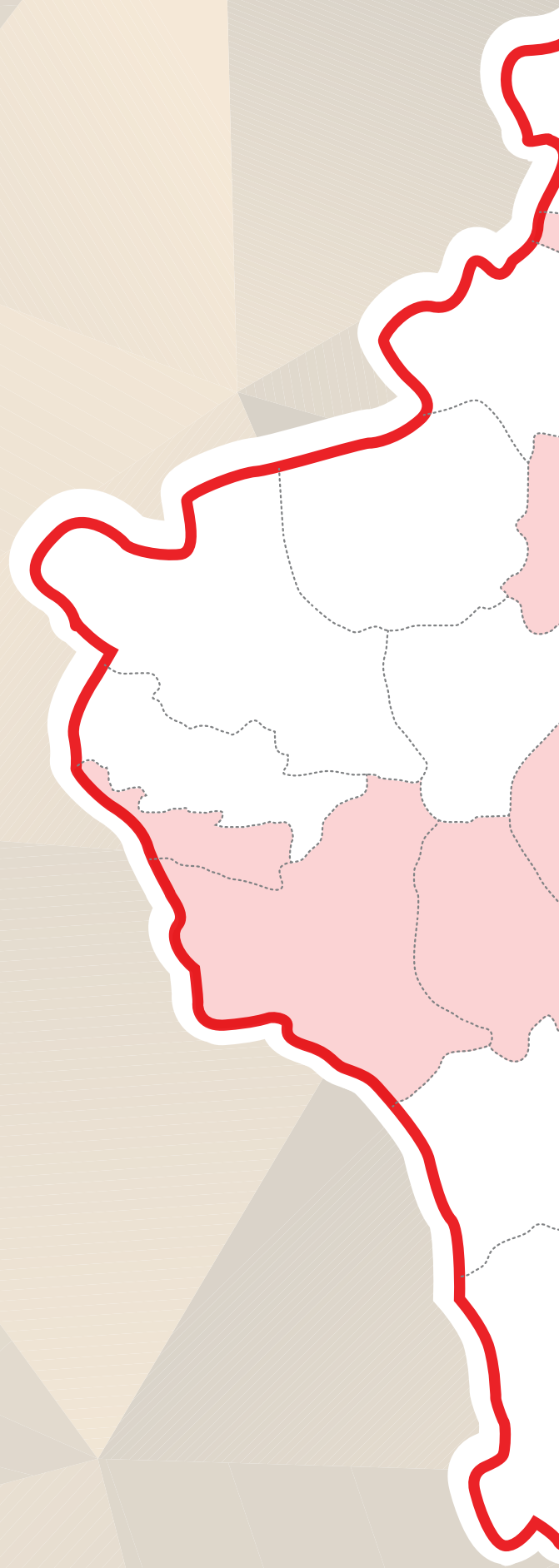
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Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Cooperation Office Kosovo



Appendix A: Abbreviations

AQH	<i>Accessible Quality Healthcare</i>
ARI	<i>Acute respiratory infection</i>
CME	<i>Continuous Medical Education</i>
DHSW	<i>Directorates for Health and Social Welfare</i>
FMC	<i>Family Medicine Centre</i>
HAP	<i>Health for All Project</i>
HC	<i>Health Centre</i>
IPH	<i>Institute of Public Health</i>
MFMC	<i>Main Family Medicine Centre</i>
MoH	<i>Ministry of Health</i>
NIPH	<i>National Institute of Public Health</i>
ODK	<i>Open Data Kit</i>
PHC	<i>Primary Health Care</i>
PRAK	<i>Patients' Rights Association in Kosovo</i>
QoC	<i>Quality of care</i>
RAE	<i>Roma, Ashkhali, Egyptians</i>
SARA	<i>Service Availability and Readiness Assessment (SARA)</i>
SCIH	<i>Swiss Centre for International Health</i>
SDC	<i>Swiss Development Cooperation</i>
Swiss TPH	<i>Swiss Tropical and Public Health Institute</i>