EAST GATE
ECONOMIC RESEARCH
& MARKET STUDIES

بوابة الشرق
للابحاث الاقتصادية
ودراسات السوق

Quality of Civil Health Services in Mosul city and ways of improving them

(Survey Study)

PREPARING

The Team of researcheres
at East Gate

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EDITION

APR 2023

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A Study Prepared for

East Gate center for Economic Research & Market Studies

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Carried out by

Al-Mosul center for Culture & Sciences

مركز الموصل للثقافة والعلوم
Al-Mosul Center For Culture & Sciences

In cooperation with

Department of Economy/ College of Administration & Economics / Mosul University

10/3 - 10/4 2023

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Thanks & Gratitude

I would like to express sincere thanks and deep gratitude for everyone who contributed to achieve this study, and for the research team, starting from assistant professor Dr. Hareth Adeeb Al Jalabi, head of the administrative body of Al Mosul center for Culture and Sciences for assuming the job of carrying out this study, and for Dr. Qusai Kamal Aldeen AlAhmadi, president of Mosul University, and for Professor Dr.Osama Ismael Almash'hadani, president of Nineveh University for the efforts exerted by their research team. Thanks also to professor Dr. Thaer Ahmad Sa'doun Alsamman, Dean of College of Administration & Economics, and to professor Dr. Mufeed Thanoun Younis, head of Department of Economy for cooperation in carrying out this study. My thanks and gratitude also go to Nawfal Suleiman Talab, head of department of statistics of Nineveh for his direct supervision on implementing the field work, and to professor Dr. Atheel Abdel jabbar AlJomard for reviewing the two questionnaire survey forms for this study, and to researchers in department of statistics in Nineveh, they are: Saleh Yaseen Saleh, Wa'ad Mar'ee Abdallah, Saleh Ablal Saleh, Fahd Suleiman Ahmad, Iyad Tarek Mohammad, Imad Attia Hussein, Nawfal Sa'ad Hameed, Omar Khaleel Younis, Fares Sa'adi Sahri, Hussein Faleh Hassan, Fadia Mwafak Sahri, Shaemaa Sa'ad Mahmoud, Fadia Faleh Hasan, who supervised designing sample of the study and contributed to modify questionnaire forms and getting them in the final format. Thanks and gratitude to Assistant professor Dr. Omeima Abdel Razzak Ibraheem, and Assistant professor Dr. Ahmad Wa'ad Allah, and assistant professor Dr. Adel Mohammad Alta'ee, Dr. safeia Adeeb Al Jalabi, Dr. Ashraf Ibraheem Jindaree, Dr. Nawar Yahya Ahmad, Mr. Muyassar Al Sheikhawi, Madam Sanaa Hazem Sa'eed, Mr. Hussein Murad, Mr.Ahmad Yousef, Mr. Mohammad Yahya Abed, Mr. Mohammad Khattab for their participation in the workshop of focused dialogue and preparation to write the report in its final form.

Yahya Abed Mahjoub

Head of East Gate center for Economic Research & Market Studies.

Introduction

From the point of view of investors, the concept of quality of health services is one of multi-dimensions, that it is considered one of the decisive factors for successful health institutions and their stability in the market. On the other hand, administrations of health institutions see quality as offering best human and material elements for providing these services. From the point of view of the patient, health care quality is treating the patient with respect, caring, empathy and understanding by all human elements, dealing with him directly or indirectly during his stay in hospital. Whereas for doctors, quality means providing higher levels of knowledge, skills and medical equipment and devices for treating patients. However, the ultimate goal of the health care is to keep the patient's condition stable and improving it[1] .

Service quality is measured (according to the US school) depending on five elements[2]:

Tangibility (physical facilities, equipment and appearance of personnel).

Reliability (ability to fulfil service promise in an accurate and reliable way).

Responsiveness (willingness to help clients and provide prompt service).

Assurance (the knowledge and courtesy of employees and their ability to convey trust and confidence); Empathy (attention and individual caring provided by the company to its customers).

Health care system in Iraq generally lacks of many elements of quality and efficiency, that Iraqis spend high portions of their incomes on health, compared to what other people in other parts of the world, in the Middle East and north of Africa, spend. However, indicators of health condition are low compared to the middle East and north of Africa.

Working on developing heath care services in Iraq can generate great financial returns for investors. At the same time, it improves health situation in whole of the society. So, this study aims to get opinions of families and doctors in Mosul city concerning the quality of health services provided by governmental and civil institutions, through a number of indicators determined in discussions with researchers in the field of public health, managing health institutions, economic development and statistics, in addition to take their opinions about a number of activities suggested for improving quality of health services and their willingness to pay for these activities.

This study consists of five sections. The 1st section describes the province of Nineveh in terms of the demographic and administrative realities and the most important indicators of health situation in the province. The 2nd section reviews the most important studies and reports dealing with

[1] Durrah, Omar, Kamaal Allil* and Ahmad Kahwaji, Impact of Service Quality Dimensions on Hospital Image: The Mediating Role of Patient Satisfactions, December 2015, International Journal of Applied Business and Economic Research 13(9):6937-6951.

[2] Rehaman B and Husnain M, The Impact of Service Quality Dimensions on Patient Satisfaction in the Private Healthcare Industry in Pakistan, Journal of Hospital & Medical Management, 2018, Vol.4 No.1:4

evaluating quality of health services in Nineveh province and Mosul city. In the 3rd section stages of this study and methodology of survey work are introduced, while the 4th section is dedicated for showing results of answers to questionnaires of the study. finally, the 5th section introduces the outcome of the study and the main recommendations and proposals.

Nineveh province: Geography, and Health & demographic indicators in 2022

Geographical characteristics of Nineveh Province[3]

Site:

Nineveh province is located in the north part of Iraq. It is bordered by Erbil province from the east, Salah Ad-Deen and Al Anbar from the south , Duhook province from the north and international borders with Syria from the west.

Area:

The area of Nineveh province is (33,313) Sq. Kms, which is (8.6 %) of the whole area of Iraq and it consists of (10) districts and (31) townships.

Climate:

Mosul city is characterized by semi- arid climate, that its summer is hot and dry, and one of the reasons of this is its low elevation above sea level, which is no more than 225 m, and degrees could decrease less than zero, as well as annual rainfall reaches 375 mm and it sometimes witnesses snowfall.

[3]source: Republic of Iraq, Ministry of Planning, Central Statistical Organization. (Link)

A map showing the administrative divisions of Nineveh Governorate

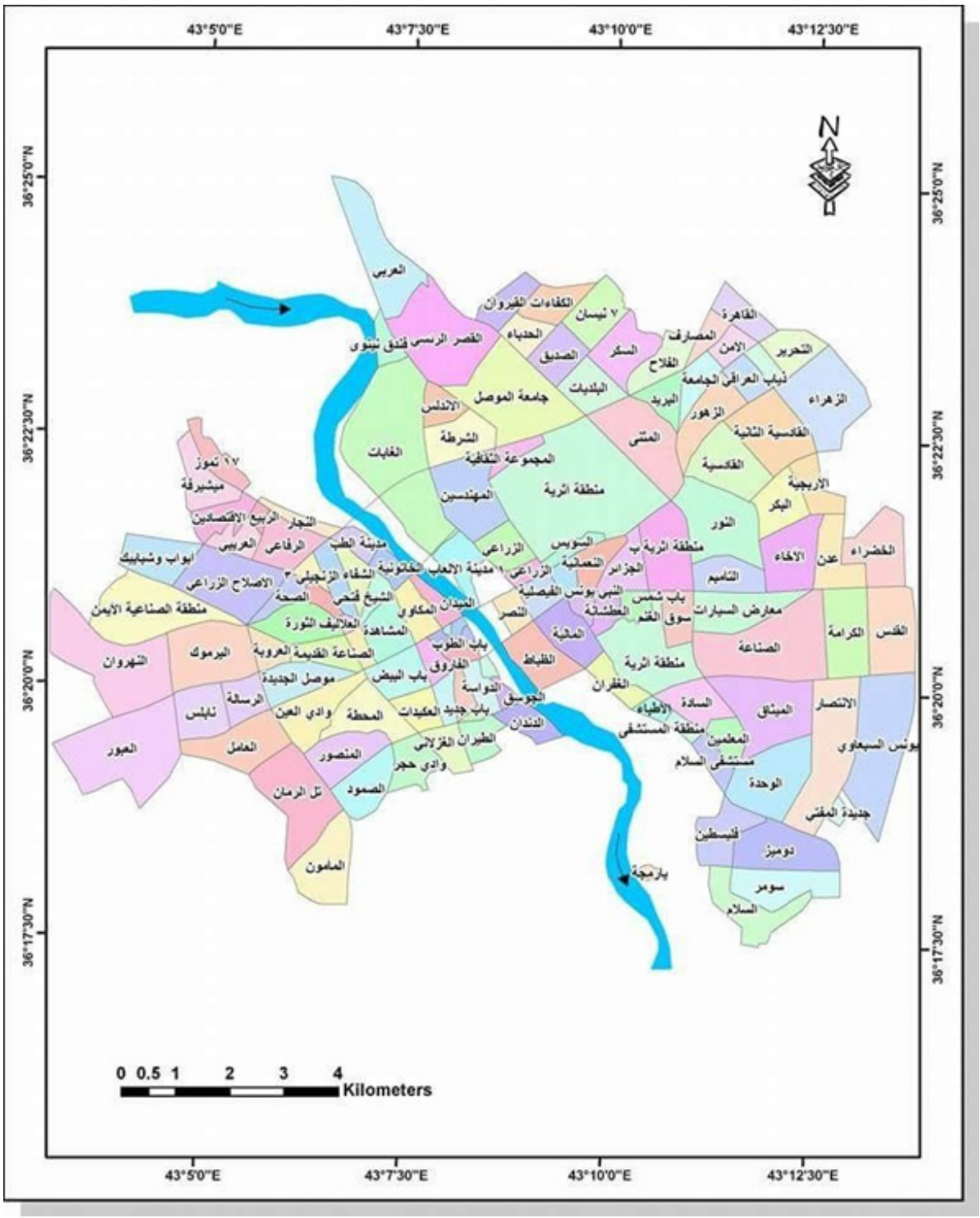
The names in red represent the centers of the districts

The names in black represent the sub-districts of each district

Mosul city

The capital of Nineveh province and the 2nd largest city in Iraq by population after Baghdad, that its population is about one million and six hundred thousand.it is almost 400 Kms away of Baghdad, the capital of Iraq, and it consists of 276 localities, 114 out of them are on the right bank of Tigris River, and it is inhabited by 40% of people of the city, whereas on the left bank, there are 162 localities, and it is inhabited by 60% of people of the city.

(Administrative map of Mosul city)



Source : (Link)

Demographic Indicators Of Nineveh Province In 2022

Population Estimation (People)	**4133536**
Population Estimation/Male (People)	**2111534**
Population Estimation/Female (People)	**2022002**
Population Estimation/Urban (People)	**2506644**
Population Estimation/Countryside (People)	**7626892**
Ratio Of Urban (%)	**60.00%**
Ratio Of Rural (%)	**39.40%**
Ratio Of Rural (%)	**17%**
Ratio Of Age Group (0-4) Years (%)	**27.20%**
Ratio Of Age Group (15-49) Years (%)	**47%**
Ratio Of Age Group (15-64) Years (%)	**53.20%**
Ratio Of Age Group 65 Years And Above (%)	**3%**
The Total Area (Sq.Km)	**37323**
Population Density (People Per Sq.Km)	**110.8**

Source: Central Statistical Organization / directorate of circulation and relations

Health Indicators Of Nineveh Province In 2020

Number Of Governmental Hospitals	**18**
Number Of Civil Hospitals	**3**
Number Of Beds For Stay In Governmental And Civil Hospitals	**1821**
Number Of Beds For Stay In Governmental Hospitals	**1732**
Bed Occupancy Rate In Governmental Hospitals	**60.7**
Number Of Doctors	**3151**
Number Of Dentists	**946**
Number Of Pharmacists	**1053**
Number Of Primary Health Care Centers	**185**
The Ratio Of Total Beds Oer 1.000 Inhabitants	**0.6**
A Doctor Per 1.000 Inhabitants	**8.02**
A Dentists Per 1.000 Inhabitants	**2.41**
A Pharmacist Per 1.000 Inhabitants	**2.7**

Source: The annual statistical report/ Ministry of Health /Environment 2020

Reality of Health services in Mosul city:

Nineveh city was known for good health care services and highly qualified doctors. Between 2008 and 2014 a large number of facilities underwent rehabilitation and were equipped with new medical devices. There was also a plan for establishing new specialized hospitals in the northern and southern parts of the city. Some of these hospitals were under construction when ISIL (Daesh) occupied the city in 2014. According to the ministry of planning (2013), Mosul city had: 13 public hospitals with a capacity of 3200 beds, and 4 specialized public hospitals (Gynecology, cancer, Nuclear Medicine, Pediatrics, Obstetrics, Thoracic, and fever diseases) with a capacity of 228 beds, and 3 private hospitals with 104 beds. Facilities of these hospitals were run well by specialized doctors until ISIL occupied the city. At that time despite those hospitals were not destroyed by airstrikes and they kept receiving civilian patients, services began to deteriorate because of the fragile security situation and that many medical staff fled. This clearly affected quality of health services and the way hospitals manage to deal with surgical cases and with patients in general. In conditions that needed surgery, civilian patients were given priority. In addition to that, the high costs imposed by ISIL for services and medical operations ranging between (100,000 and 500,000 Iraqi Dinars increased the suffering of civilian patients. The fact that ISIL prevented male doctors from treating female patients and female doctors from treating male patients affected health of mothers. The problem got worse because of increasingly deteriorating sanitation system in hospitals and problems in the disposal of hazardous waste in these hospitals. And the shortage of obstetric care became another dangerous problem specially with depletion of baby vaccines. Supplies and numbers of medical devices decreased, that ISIL moved these supplies out of Mosul to use them for other purposes. Closing highways linking Mosul with other Iraqi cities also contributed to the deterioration of health sector in the city. Although pharmacies were open, their supplies of medications were very limited, and if they were available, they cannot be afforded. A large number of inhabitants of the city were affected by weak health care and the difficulties in making surgeries and lack of essential medicines and medical supplies (such as Insulin and high blood pressure medications), in addition to the bad disposal of solid waste and scarcity of potable water[4] .

[4] UN-Habitat, City Profile of Mosul, Iraq: Multi-sector assessment of a city under siege, October 2016, pp 69.

According to the latest statistics by the government, 12 out of 14 governmental hospitals were destroyed, as well as 76 out of 98 health centers around the city of Mosul were under bombardment. The most prominent hospitals that were bombed during military operations were: Educational Ibn Sina hospital, which was the biggest hospital in Nineveh province and the second after the City of Medicine in the capital Baghdad, added to the list of destroyed hospitals are: Al Salam, Al Jomhouri, Al Batoul hospitals and the cancer hospital[5].

Health care facilities didn't recover after six years of war of liberating Mosul from ISIL, that is a large part of its infrastructure is still destroyed and unexploded ordnance prevent lifting rubbles. Hospitals and other facilities are still suffering from shortage of medical supplies, which provides only 10% of the daily needs of patients and doctors don't have place to rest or sit. Many medical facilities in the city were heavily destroyed and people are still struggling to have affordable services of high quality. In addition to that the main hospitals in Mosul have been reopened in temporary buildings and caravans and there is still shortage of medication and supplies. Although there are plans for rebuilding the city and recovering the medical system, they are not carried out. Violence against doctors is still one of the main problems, employees in health care face on a daily basis. Many people tend to keep silent regarding systemic problems for their safety, and doctors face abuses by patients and their families because they can't manage to treat their loved people[6].

[5]Source: Mahmoud Al Najar, 2020, Stricken Mosul is struggling against the epidemic, Al Insani magazine edition 67, ICRC, p23

[6]Mina Aldroubi, Mosul's hospitals lack medicine and beds five years after battle against ISIS, Jul 13, 2022. (Link)

Survey study about

Quality of Civil Health services in Mosul city and ways of improving them

This study is mainly classified under market studies, which aim to create investment opportunities in economic sectors, which faces high demand on products and shortage in providing these products. The sector of civil health services is on the top of sectors that suffer from problems due to the high demand on these services and the lack of quality and efficiency in them.

This study was carried out in phases, which are:

The first phase: the phase of exploratory research

In this phase the main goal is to identify the most important problems that the sector of civil health services in Mosul faces. Deep discussion was made with a number of academics and experts in the field of general health and managing health institutions, economic development and statistics. This discussion was centered on the most prominent civil institutions, which provide health services in Mosul city, and suggestions for improving performance of these institutions. The workshop ended with the following points:

First: Main problems facing the governmental health institutions:

1- Weak role of initial health care centers, that patients mostly don't go to initial health care centers to let them know the necessary procedures for solving their problem including referring them to the appropriate doctor to examine them.

2- Small number of health centers in districts and townships, and short working hours in these centers, which led to overcrowding in health institutions in the city center.

3- Small number of ambulances and lack of vehicles to transport patients to hospitals in a way that ensures their safety.

4- Small number of public and specialized hospitals.

5- Small number of consultant doctors in governmental hospitals.

6- Poor distribution of medical and nursing staff in governmental hospitals.

7- Low level of a culture of health.

Second: Main problems facing civil health institutions:

1- Low level of secretariat training in clinics and private medical complexes.

2- Scarce number of clinics or private medical complexes that are open after the official business hours or late at night.

3- Overcrowded waiting rooms.

4- Fit-in patients in the schedule of appointments.

5- Lack of elevators.

6- No parking lots.

7- High costs of medications.

8- Examining more than one patient at the same time.

9- Low doctors' wages.

10- Lack of security and legal protection for doctors.

Third: proposals for improving medical services of civil institutions:

1- Private ambulance services to transport patients to hospitals.

2- Opening training centers for qualifying secretariat for clinics and civil medical complexes.

3- Providing online medical appointment scheduling system for regular and urgent appointments.

4- Activating the system of referring patients to a specialist by a family doctor.

5- Providing health insurance systems by private companies or civil hospitals.

6- Activating home visit medical examination in exchange of fees.

The second phase: designing questionnaires

In this phase a number of meetings were held among supervising researchers of the study to form questionnaires specific to the study. The study includes two questionnaires: the first one is dedicated for families, and the second is for doctors. Questions of the two questionnaires were drawn from meetings of concentrated discussion workshop.

The third phase: evaluating the two questionnaires

In this phase the two questionnaires were presented to experts in survey studies and to experts in the directorate of statistics in Nineveh after transforming them into electronic questionnaires via Kobotoolbox application. Experts gave their comments so the questionnaires were adjusted.

The fourth phase: designing the sample of the study

In this phase the society of the study and the size of the sample of the study were determined with the cooperation with the directorate of statistics of Nineveh, so the study included two societies: the first one is that of families in Mosul city, and the second one is that of doctors in Mosul city. A random sample was drawn from each society according to the following methodology:

First: the sample of families:

The size of the initial random sample was calculated by the following equation

$$n = \frac{z^2 p(1-p)}{e^2}$$

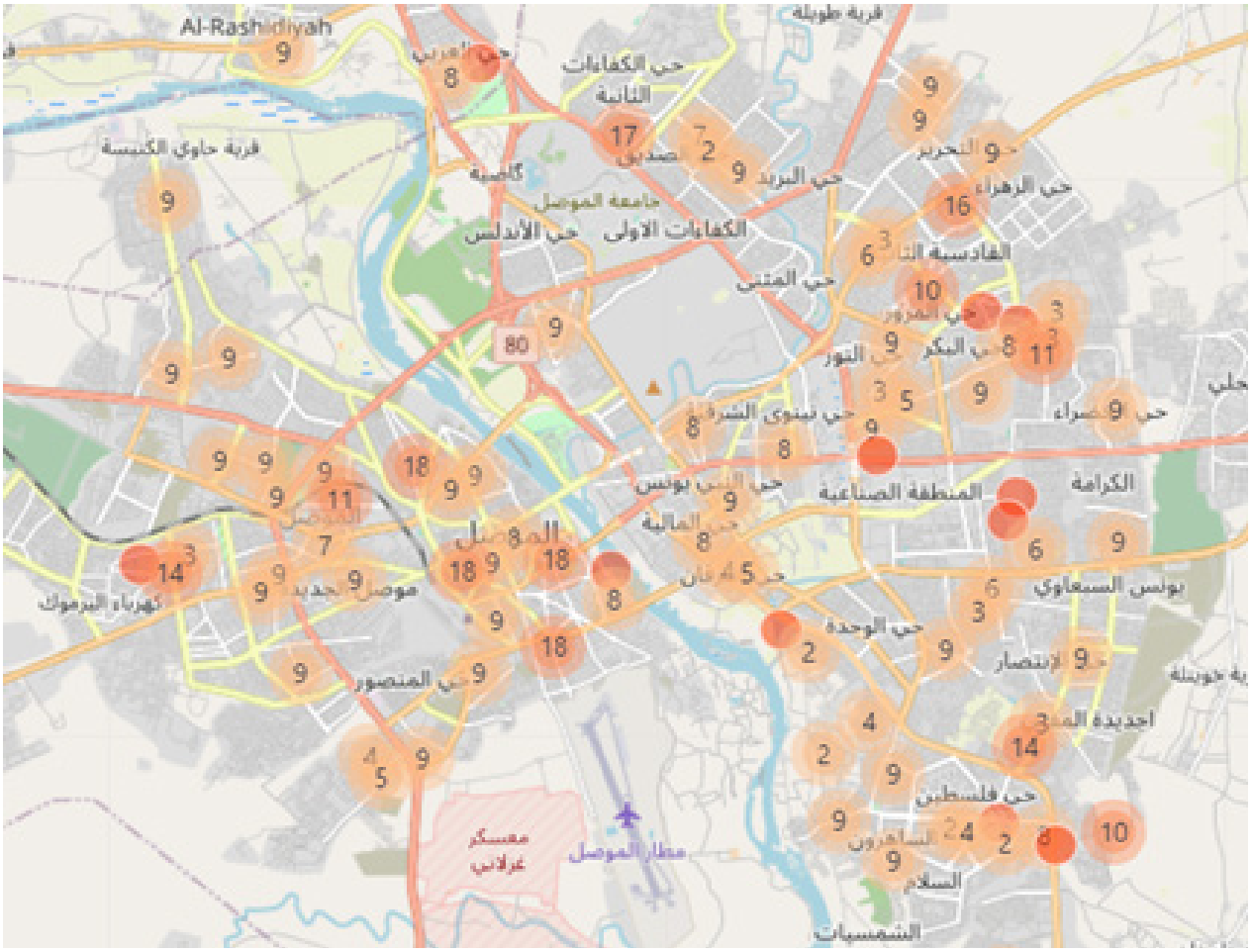
n represents the size of the sample, and z represents the table value of the normal distribution and it equals 1,96 when limits of the trust are 95% (this adopted by the study). P represents ratio of inhabitants and it has characteristics relevant to the study. The ratio was assumed as 50% in order to have the biggest size of the sample. Whereas e represents the margin of error, which is assumed as 4%. So, the size of the sample is 600 after it was adjusted according to the number of inhabitants who are older than 15 years, whose number is 951747. 40 observations were added to the sample for the possibility of dropping out some observations due to addition errors. In the end we had 632 correct observations.

The sample of the questionnaire was chosen based on the results of numbering and enumeration of population and houses in 2009. The blocks of neighborhoods (2474 blocks) in Mosul city were taken as initial inspection units. Then, 72 blocks out of them were chosen by the systematic probabilistic linear selection as a first phase. After numbering and enumerating families in the chosen initial units of inspection, an operation of linear selection for 9 families from each of units of initial inspection was carried out, that the size of the sample was determined according to time spent in filling in the questionnaire, taking into consideration the field circumstances.

Second: the sample of doctors

A sample of 72 doctors was chosen, 56 out of them were of different specializations and 16 were dentists, that they represent 3% of doctors working in the center of Mosul city. Distributing the sample was done by a systematic style on hospitals and medical centers in the left and right sides of Mosul city, taking into consideration that the chosen number of doctors includes as much as possible all medical specializations in the province.

The map of distributing the team of field survey in Mosul city



The field work was done by two teams to carry out the job as a whole:

1-Team of updating the framework of field work:

The job of this team is to update store blocks included in the sample, identifying names of families, random selection of the chosen families, handing the team responsible of filling in questionnaires a schedule of names of heads of the families in order to be visited by this team, which works under the directions of the head of team of updating.

2-Data collection team:

The job of this team is to fill in the electronic questionnaire depending on the table handed from the team of updating the framework, and they work under the directions of the head of data collection team.

Mechanism of field work:

1- The first phase of field work included the work done by data updating team to update the schedule of the names of families in the 72 chosen blocks from neighborhoods and chosen sites for work, then choosing 12 families, 9 of which to answer the survey questionnaire and 3 are spare choices and to deliver the names of the heads of families to the team of researchers for ensuring impartiality and objectivity in choosing under the supervision of the team of framework management and its updating of the questionnaire.

2- Distributing the sample to 12 field researchers, allocating 9 families for each researcher per day, taking into consideration time spent to fill in the questionnaire.

3- The second phase of the field work included the researchers filling out the questionnaire form according to the names of the families selected to work, starting the field work, and communicating with the field work management team to avoid any problems.

The results of the answers to the study questionnaires

This phase of field work included statistical description to distribute answers of individuals of study sample, who represent families and doctors, that the answers cover 632 families and 72 doctors (after excluding answers that has no sufficient data).

These answers were divided into four axes, which are:

1- The axis of demographic information.

2- The axis of expenditure on health and the standard of living.

3- The axis of evaluating the general health reality.

4- The axis of evaluating reality of civil health institutions.

5- The axis of proposals for improving civil health services.

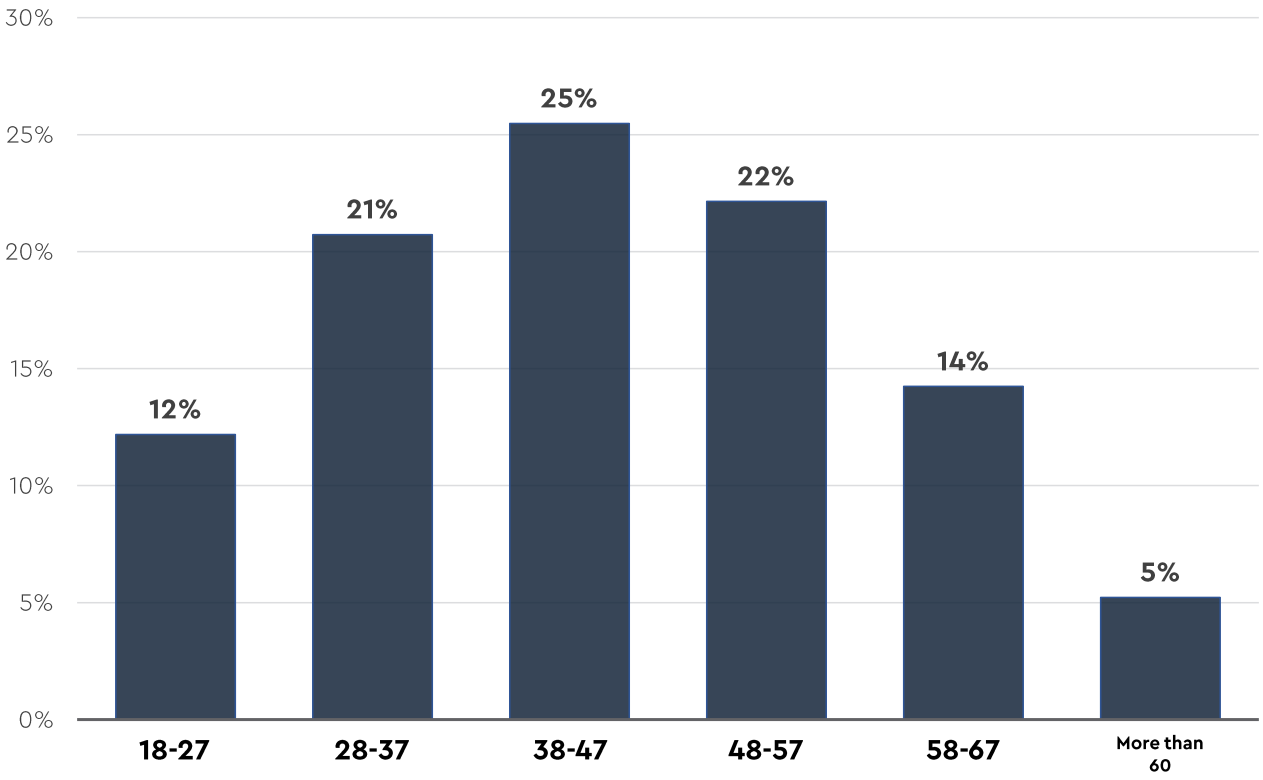
And herein the results of each axis:

First: demographic information

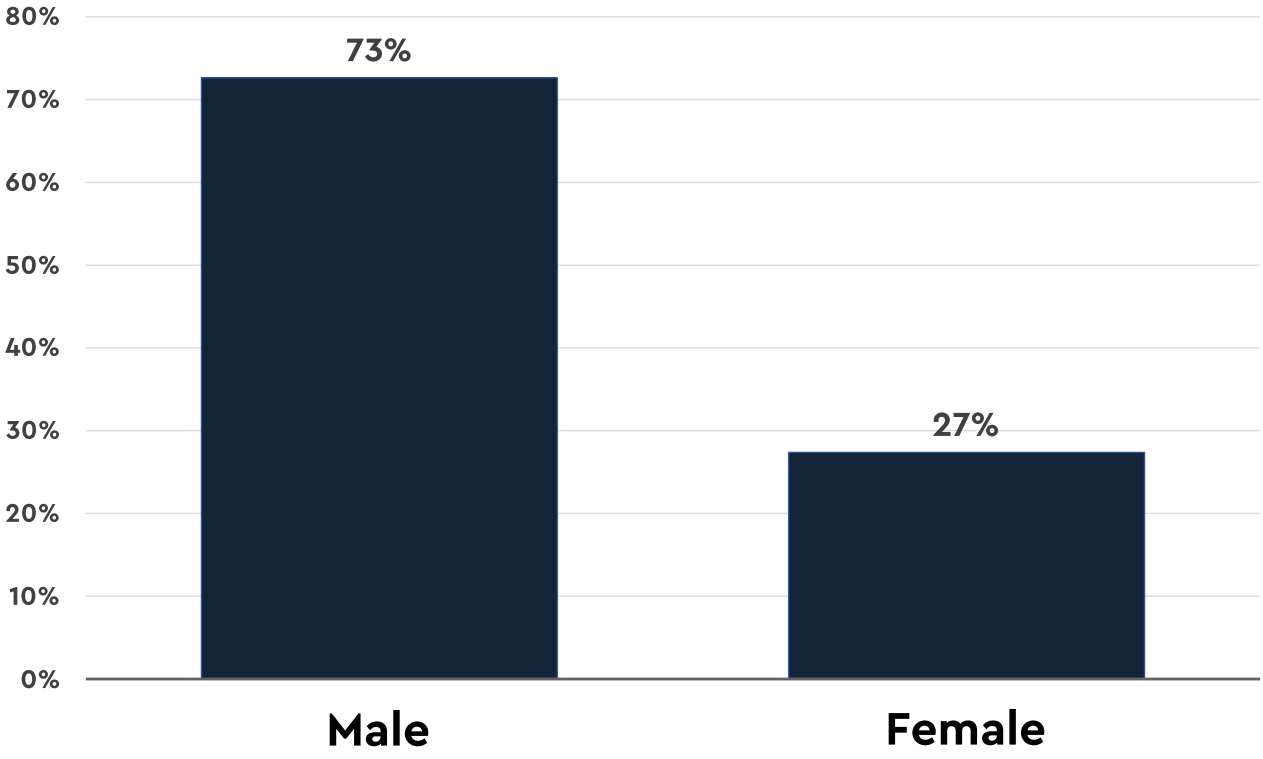
a- The sample of families: results regarding the sample families showed that more than 80% of responders are of age less than 60, as it is clear in diagram (1-1), and this indicates that there is a lower likelihood of chronic diseases like: Diabetes, high blood pressure, heart diseases, and other diseases that need constant treatment. Diagram (2-1) shows that 73% of responders are male and 27% are females. This indicates that supporter of the family is dedicated to work outside home, taking into consideration that social norms oblige women to do housework, even if she has work outside.

Results in the diagram (1-3) shows that 81% of responders are married and this is an indicator of an increase in the cases of supporting family in the society of the sample. As for education, results in the diagram (1-4) shows that 35% of people have elementary school certificate and 21% didn't follow their elementary education and this is an indicator of the lack of education in society, something that may has negative effects on the culture of health and on the general reality of health.

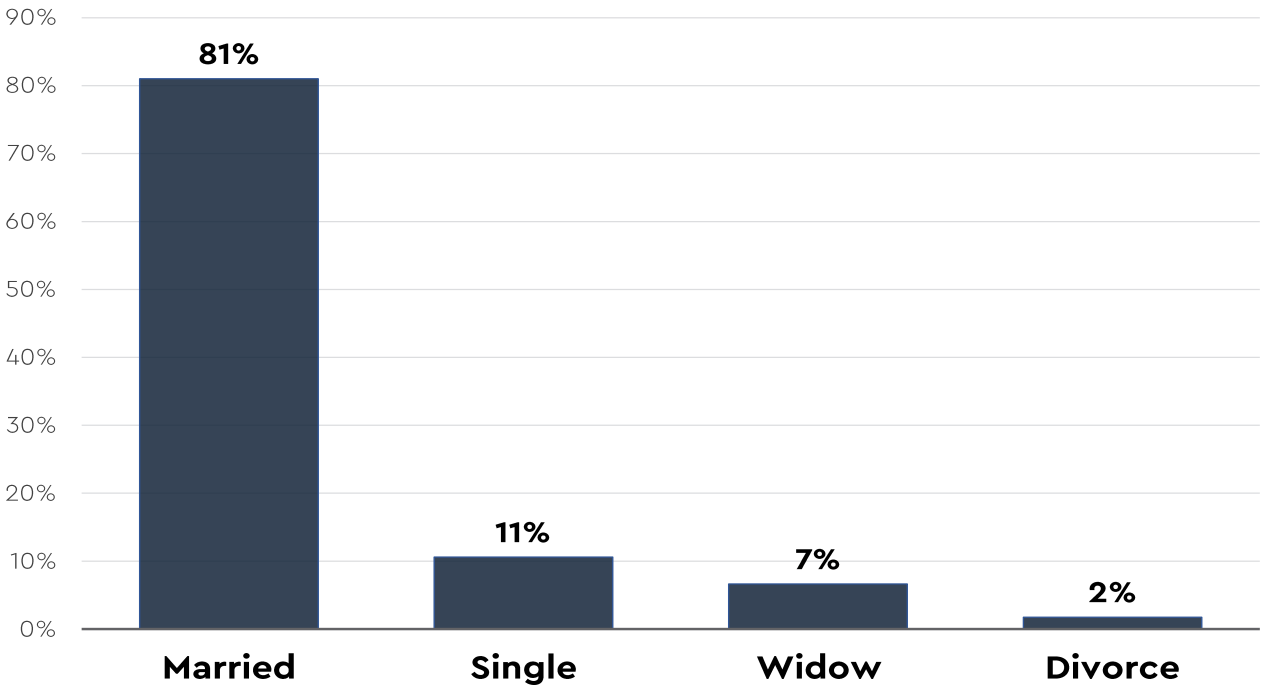
Digram (1-1) : Age Category - Sample of Households



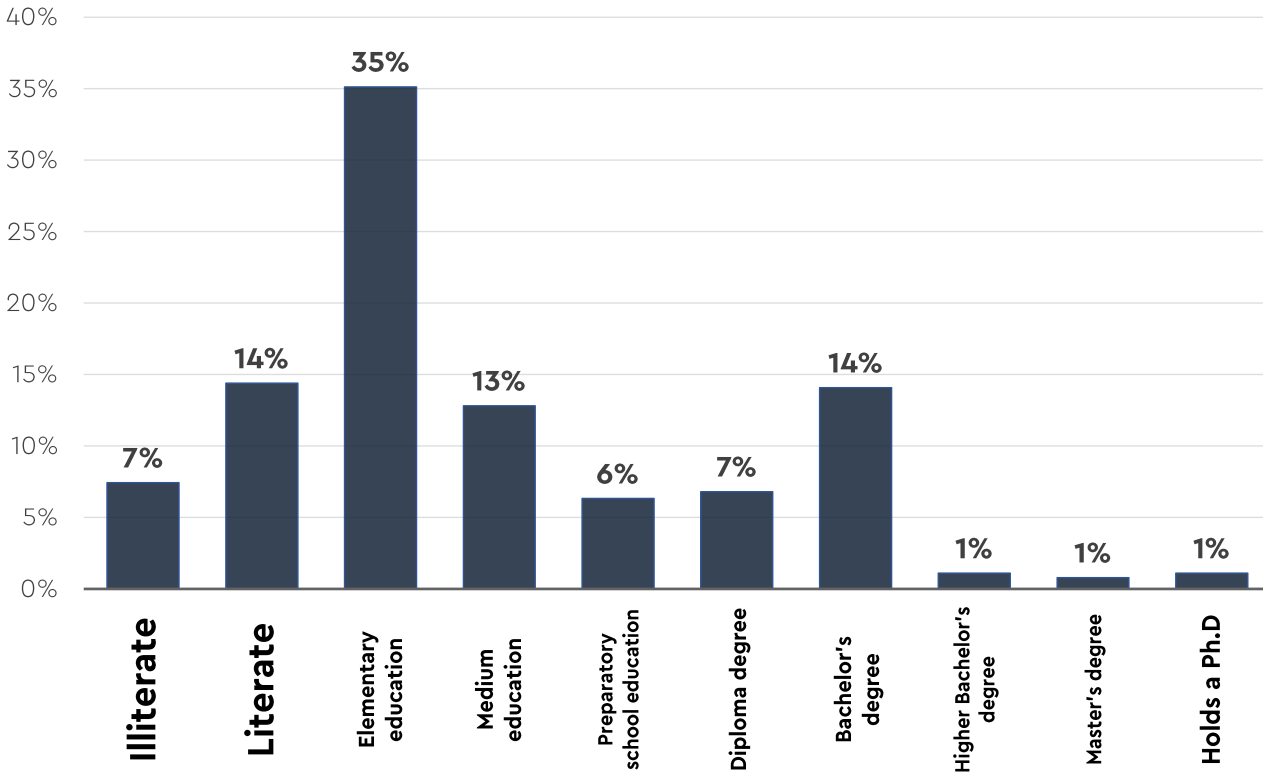
Digram (1-2) : Gender - Sample of Households



Digram (1-3) : Social Status - Sample of Households



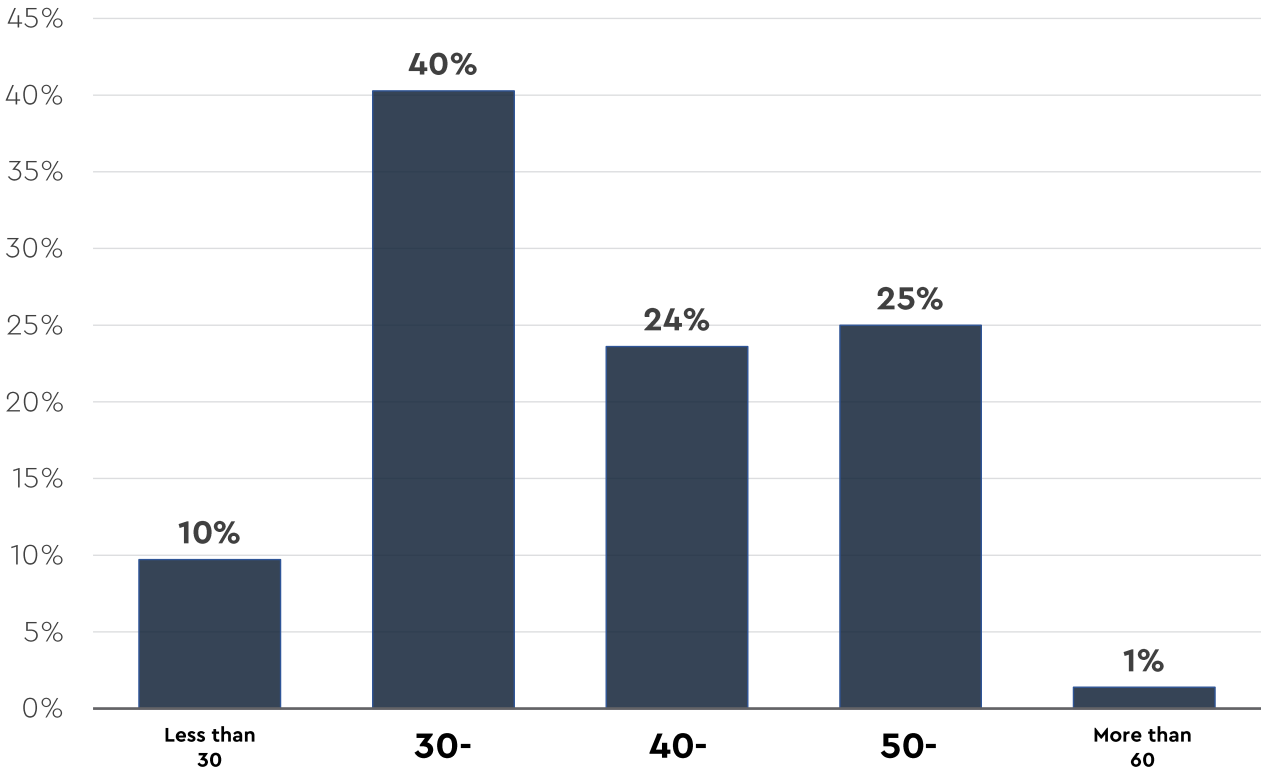
Digram (1-4) : Education - Sample of Households



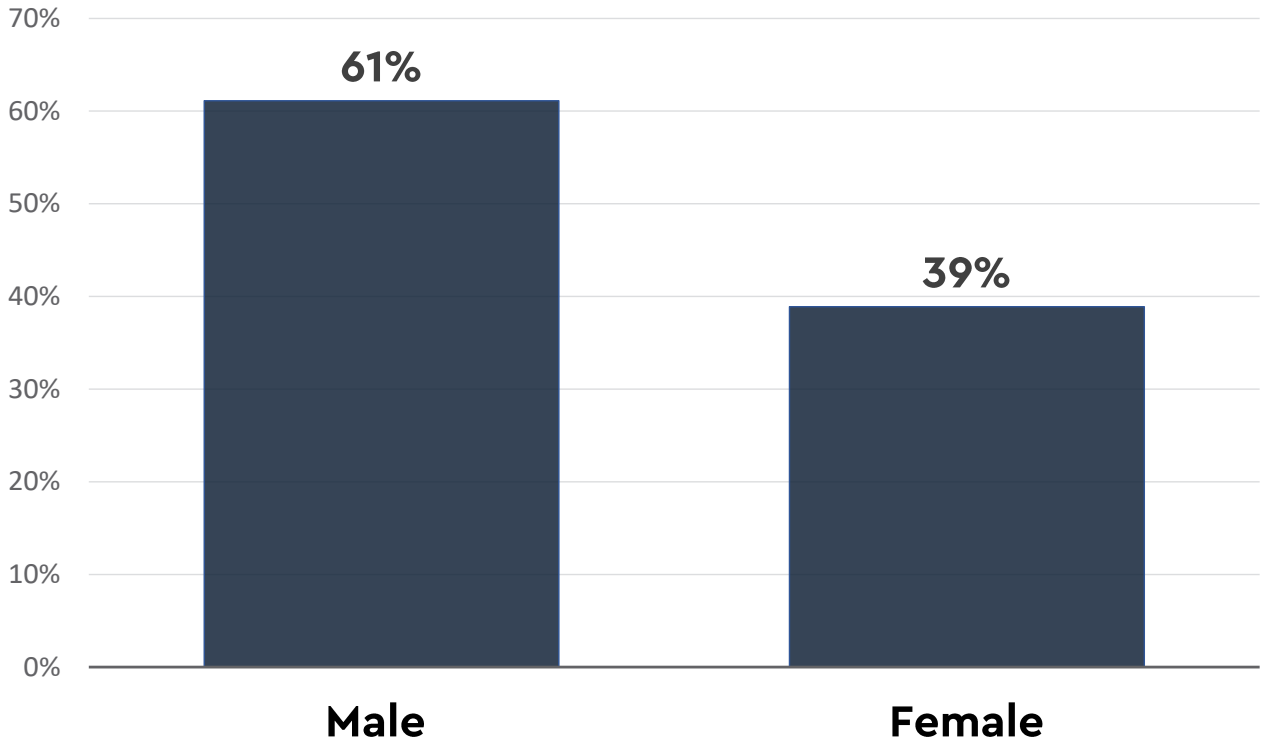
b- The sample of doctors: Results of the sample of doctors showed that the higher age category of doctors is between 30 and 40 years, and they constitute 40% of the total sample. So, we can consider this age category a pivot category in the medical sector due to services it provides in the private and public sectors.61% of the sample are males and 39% of the sample are females, which indicates high percentage of women's contribution to medical sector compared to other economic sectors. In addition to that 88% of the sample are married, and regarding education, results showed that 29% of doctors have board and diploma certifications, which are professional specialization certifications and this indicates of high percentage of doctors don't have academic or professional specialization. Percentage of dentists of the sample is 26% compared to 64% of other specializations, and 85% of doctors of the sample work for governmental hospitals, whereas 11% work for health centers and 4% are academics or work for administrative institutions. 61% of doctors of the sample denied that they work for civil institutions, and 85% of those who work for civil institutions have private clinics and 11% work for civil institutions, while only 4% work in medical complexes.

Diagrams (1-5) to (1-12) show more details of the sample of doctors.

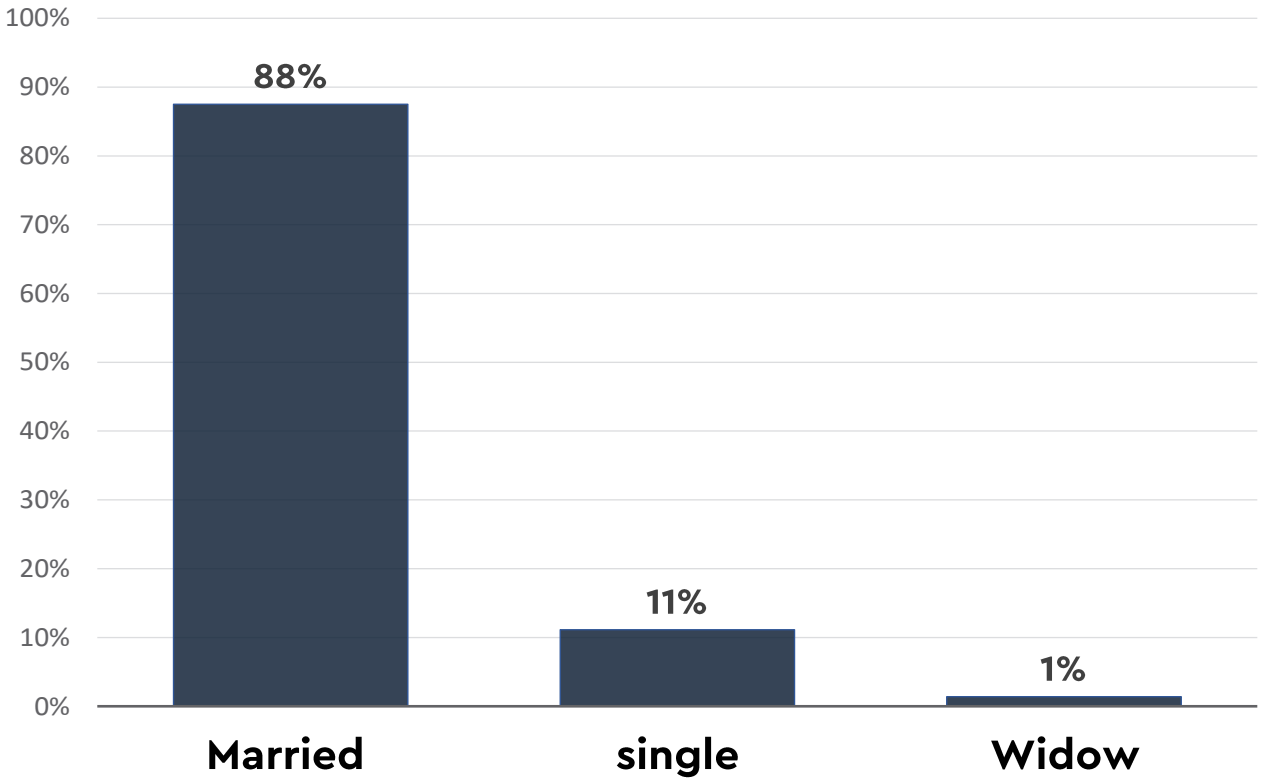
Digram (1-5) : Age category - Sample of doctors



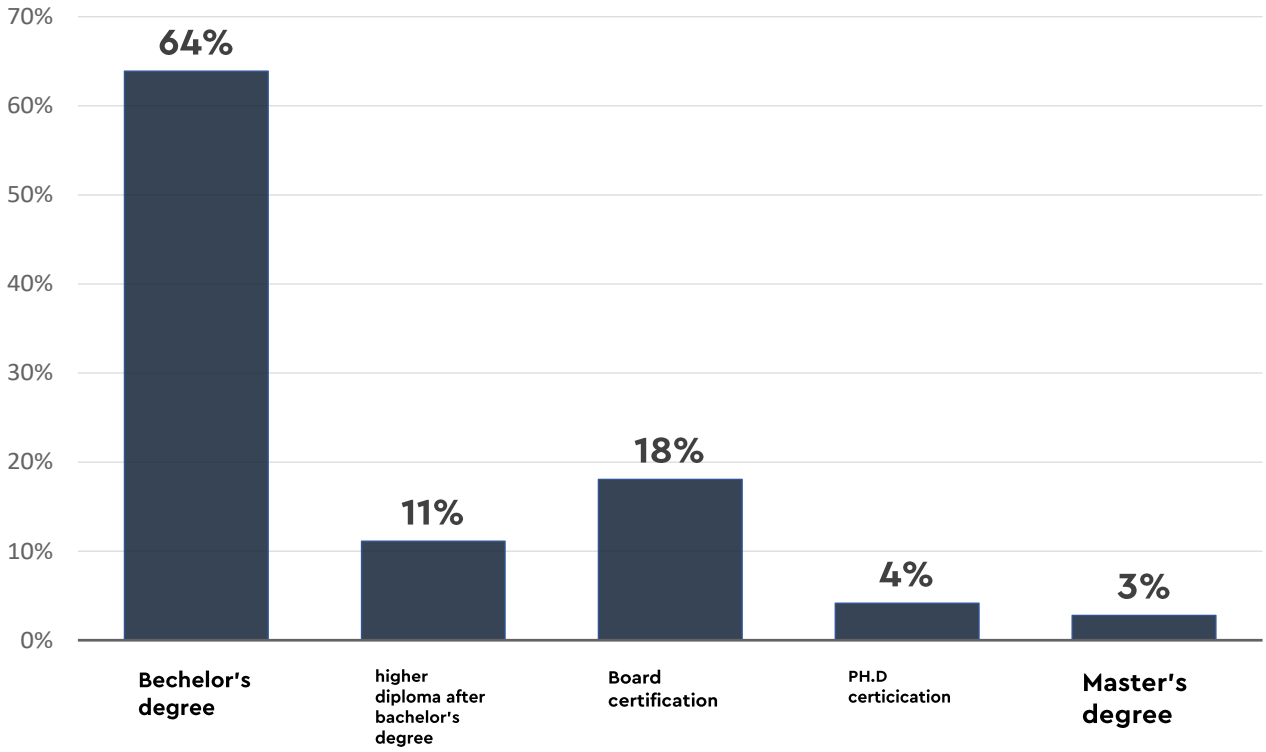
Digram (1-6) : Gender - Sample of doctors



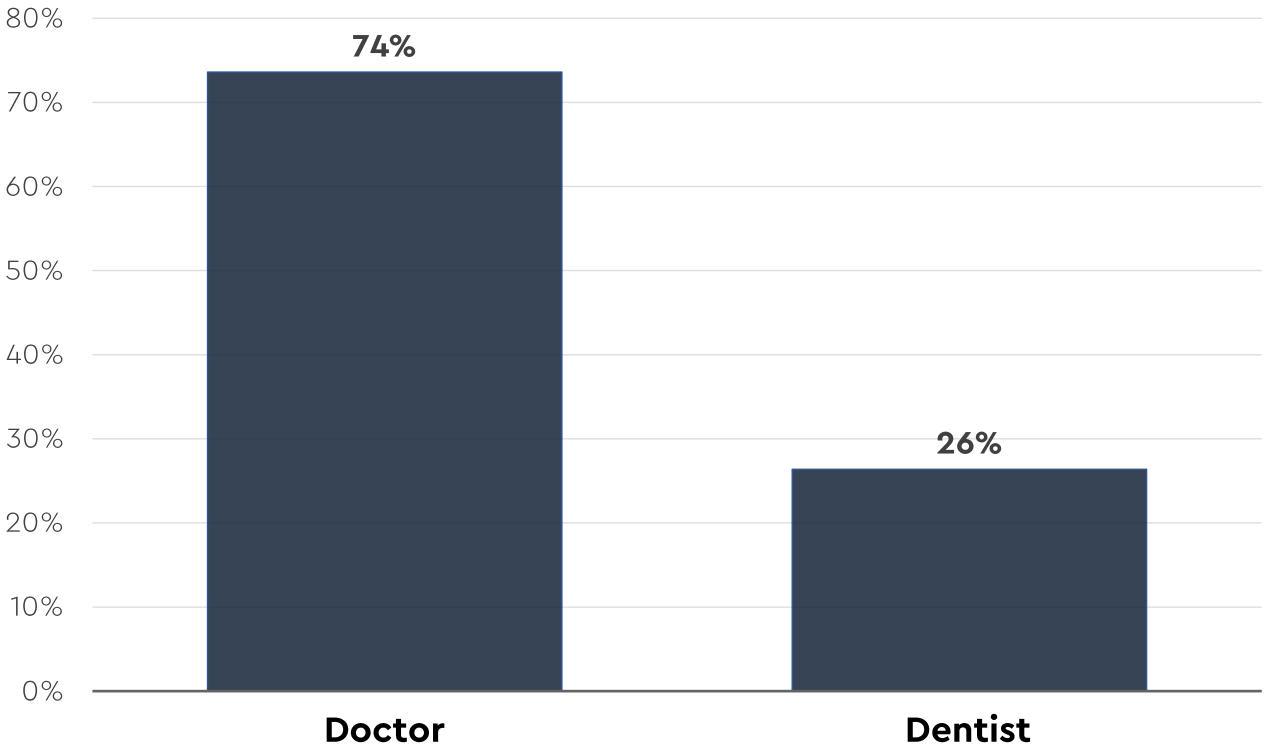
Digram (1-7) : Social status - Sample of doctors



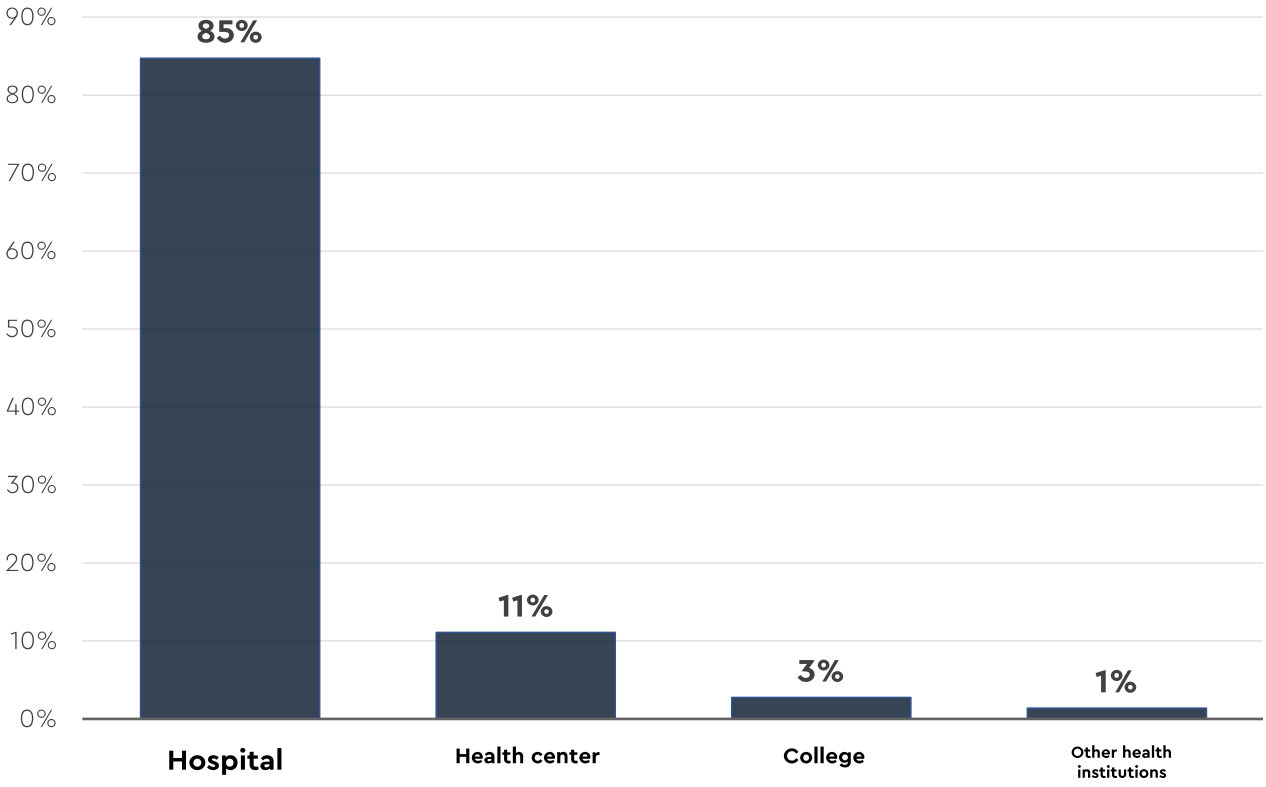
Digram (1-8) : Education - Sample of doctors



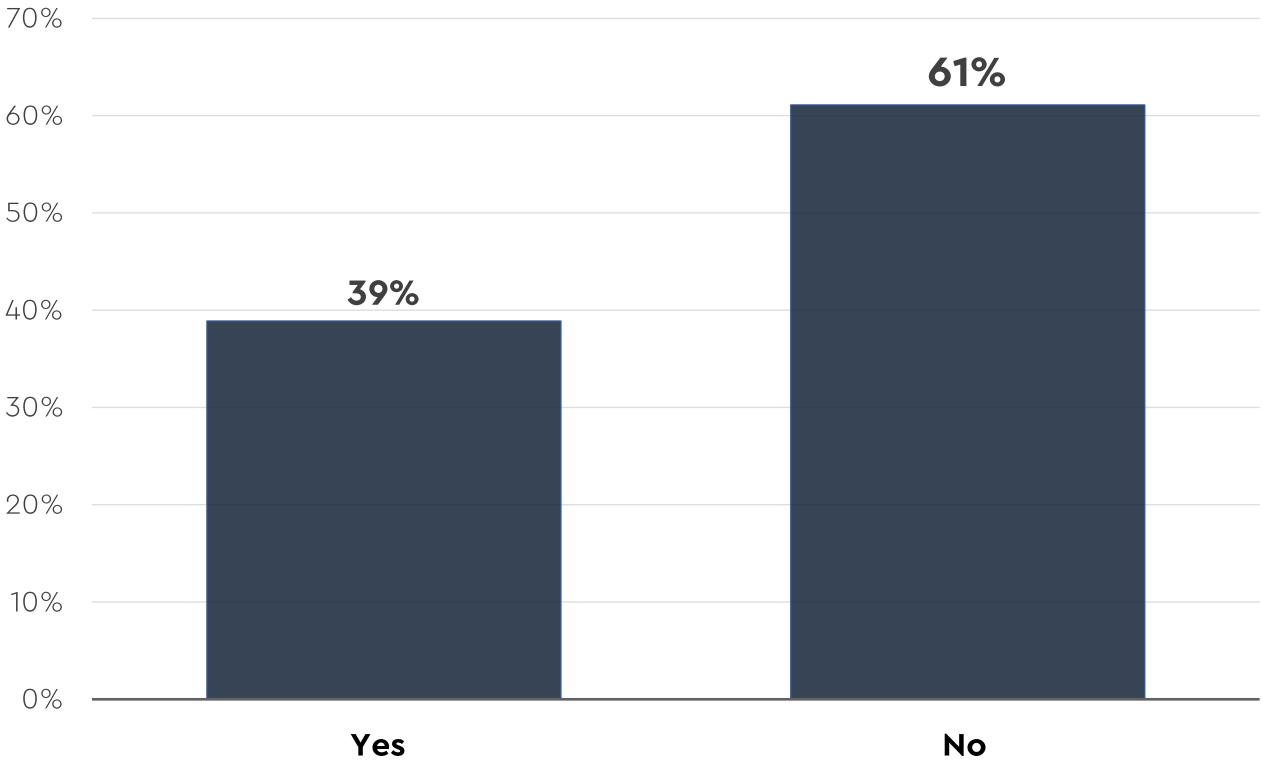
Digram (1-9) : Academic specialization - Sample of doctors



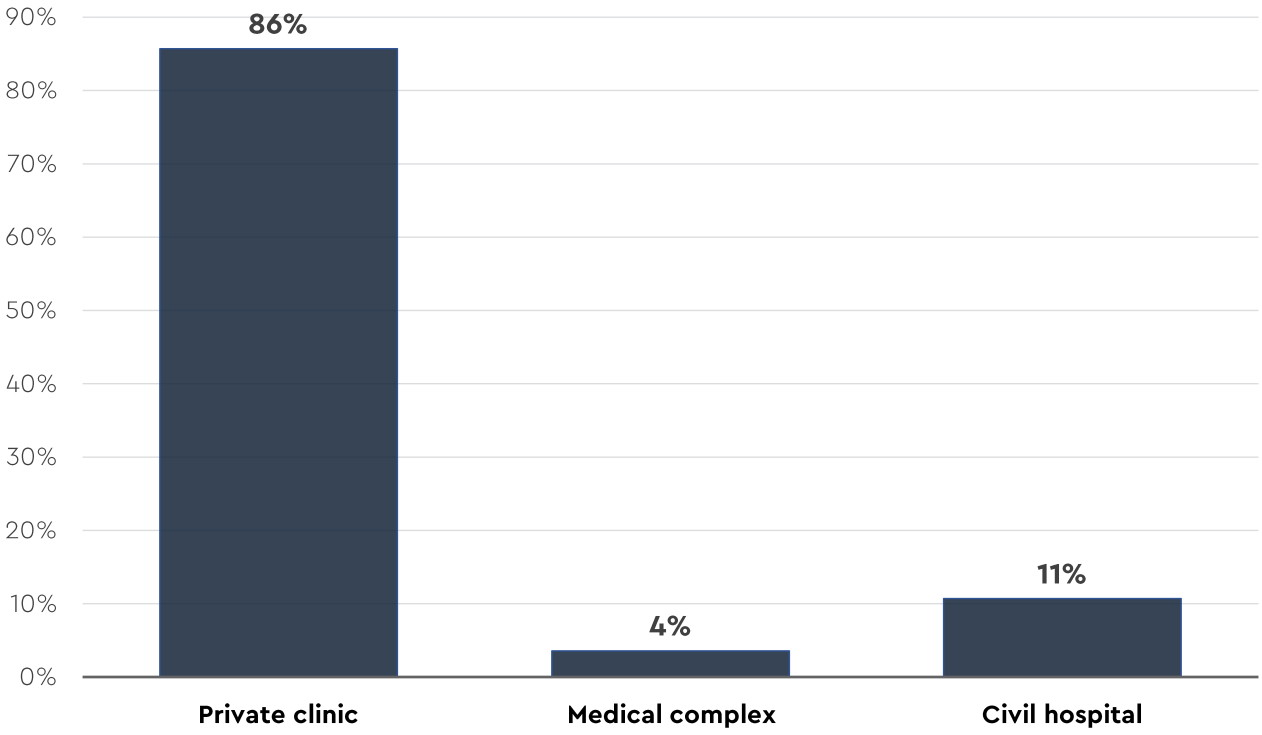
Digram (1-10) : Governmental institution for which doctors work



Digram (1-11) : Do you work for a civil institution?



Digram (1-12) : The civil institution for which doctors work

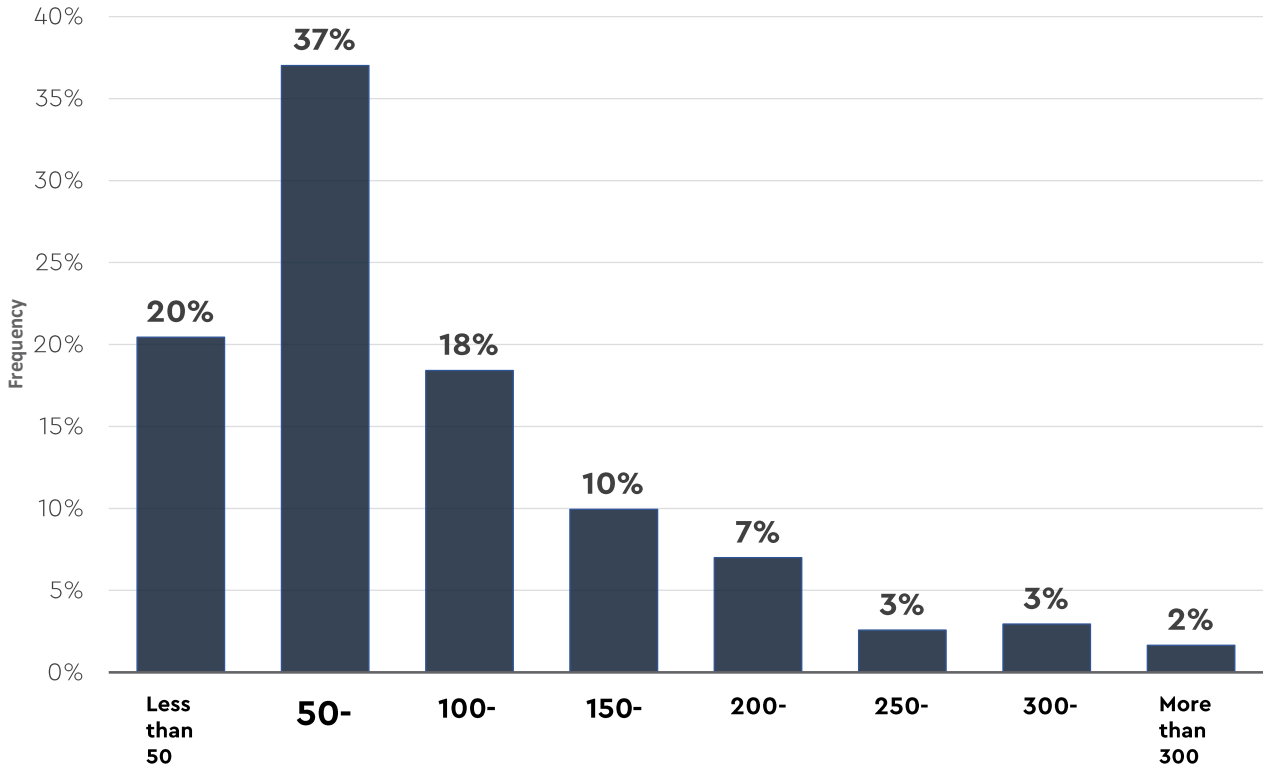


Second: Health spending and standard of living

Results of the study regarding health spending and standard of living show the following:

1- The average of monthly health spending of a family is 88 Dinars, which is confirmed by the frequency distribution, which show that the category of highest health spending is the one that monthly spends on health services between 50 to 100 thousand Dinars with a percentage of 37% as it is showed in the diagram (2-1). As well as results of regression analysis between health spending and income level (it is calculated by dividing the average monthly expending by its percentage of income) showed that the elasticity of response of health spending to change in income leads to an increase in health expending in the same portion, as it is shown in the diagram (2-2) and the table (2-1).

Digram (2-1) : The average monthly health expenditures (thousand sinars)



Digram (2-2) : The relashionship between health expenditure and income

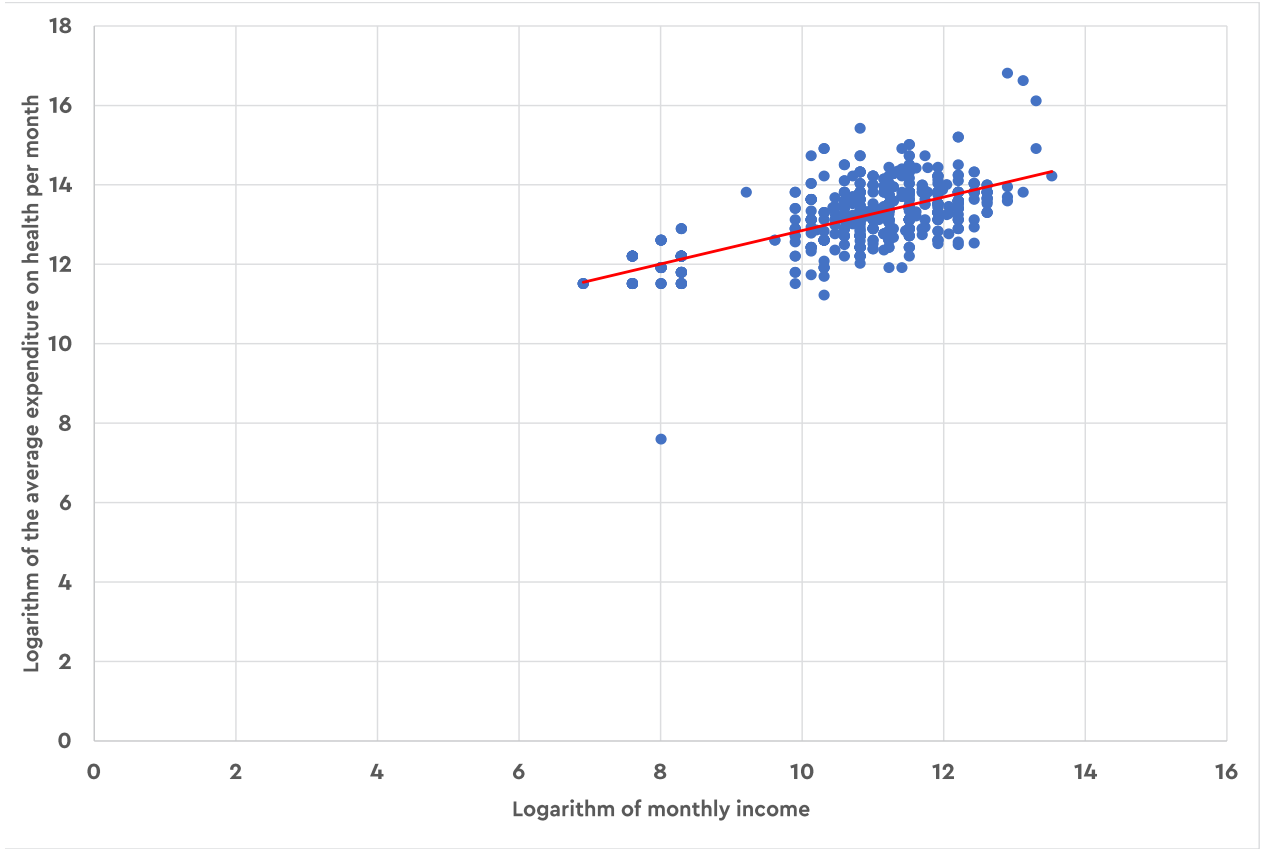


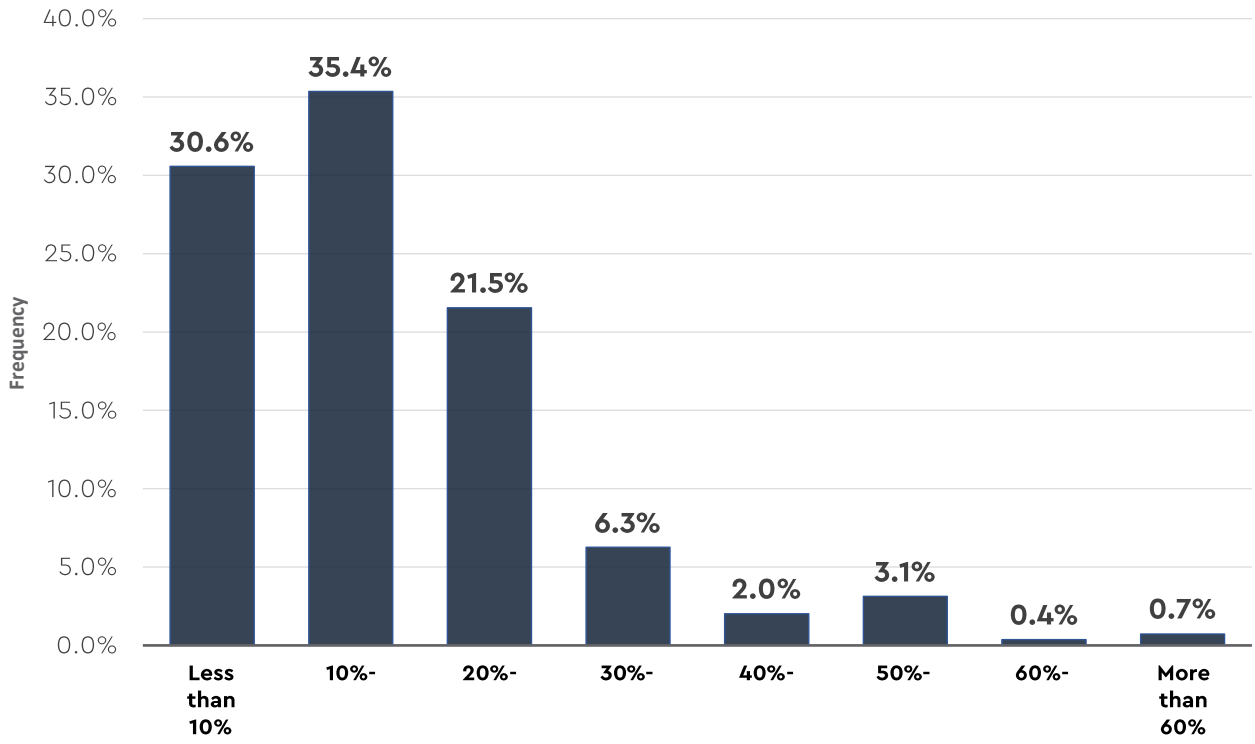
Table (2-1) : Results of monthly income regression analysis on monthly health expenditures

Adopted variable: Logarithm of the average monthly household expending on health services

	Coefficient	Standard Error	Statistics	Likellhood Of No Effect P-Value
Flxed Limit	-2.87	0.62	-4.62	0.00
Lgarithm of Monthly income	1.04	0.05	22.04	0.00
Coefficient of Determination R2	0.44	F Statistics	485.80	0.00
Adjusted Coefficient of Determination Adj R2	0.44			
Observations	628			

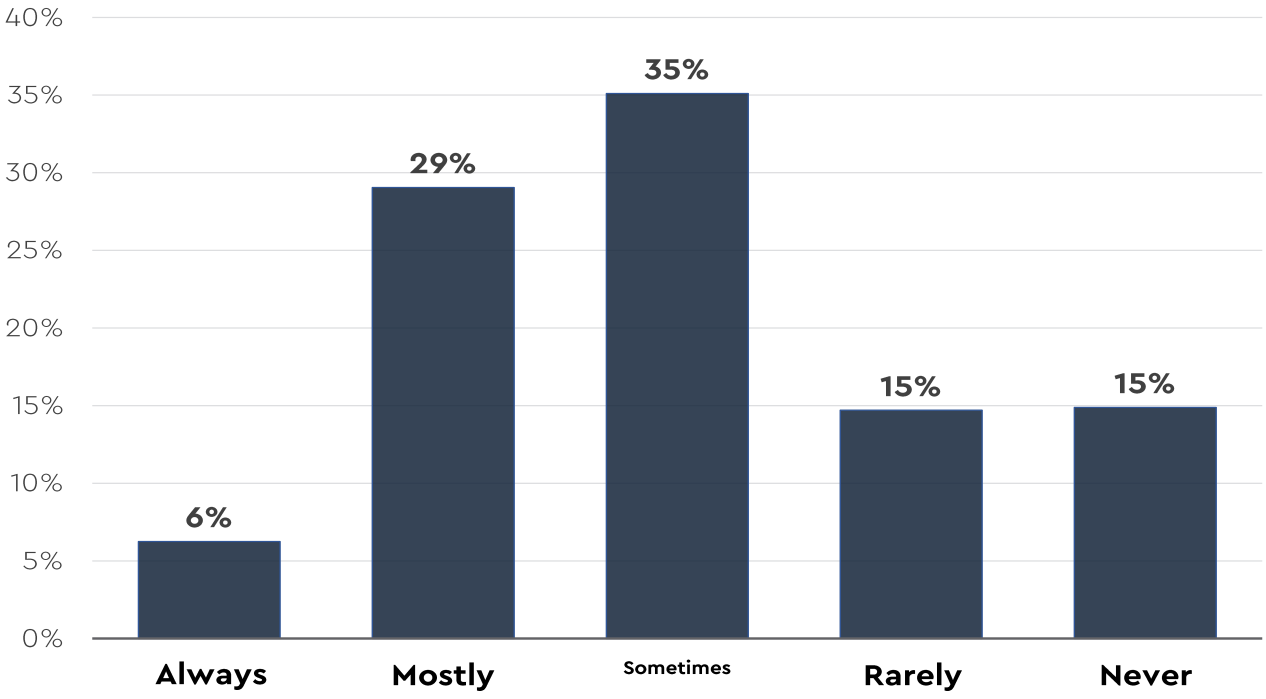
2- The average percentage of household health expenditures of income is 14%, and this percentage comes within the category of higher frequency in the diagram (2-3).

Digram (2-3) : Ratio of health expenditures from the income of the household



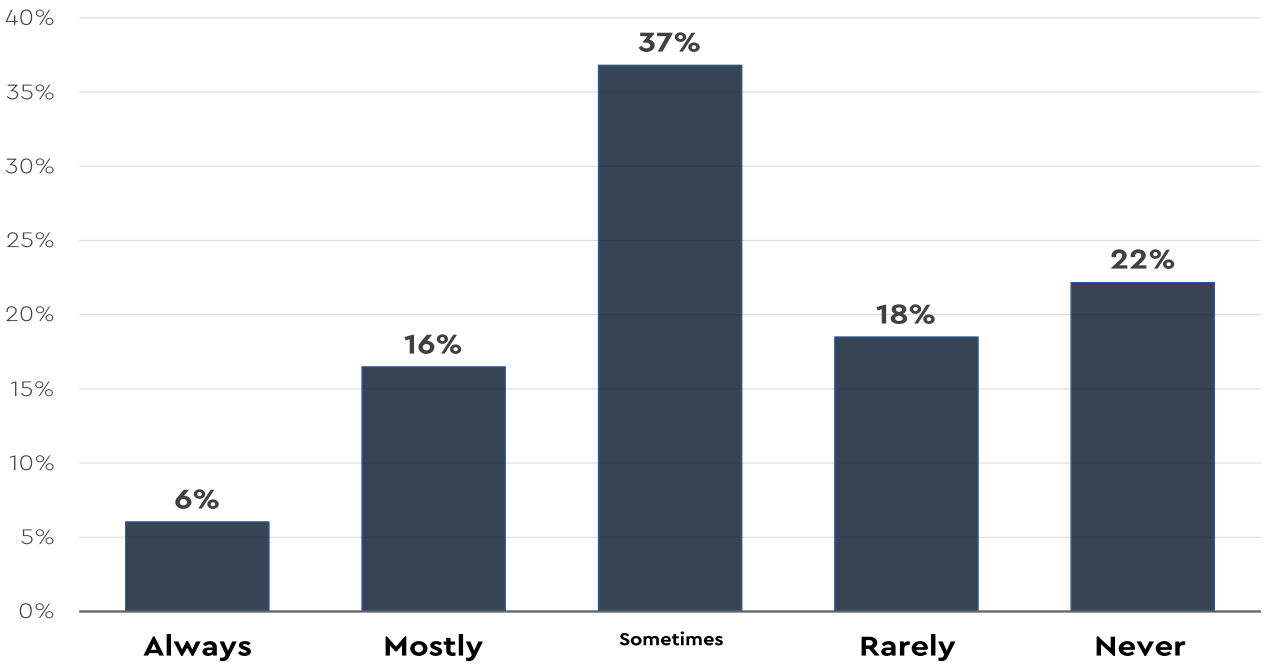
3- A decrease in income leads (Always or mostly) to not visiting doctors by 35% of households of the city, as well as 35% of households sometimes don not visit doctors because of their low income, as it is shown in the diagram (2-4).

Digram (2-4) : Dose your low uncome lead you not to vist doctors?



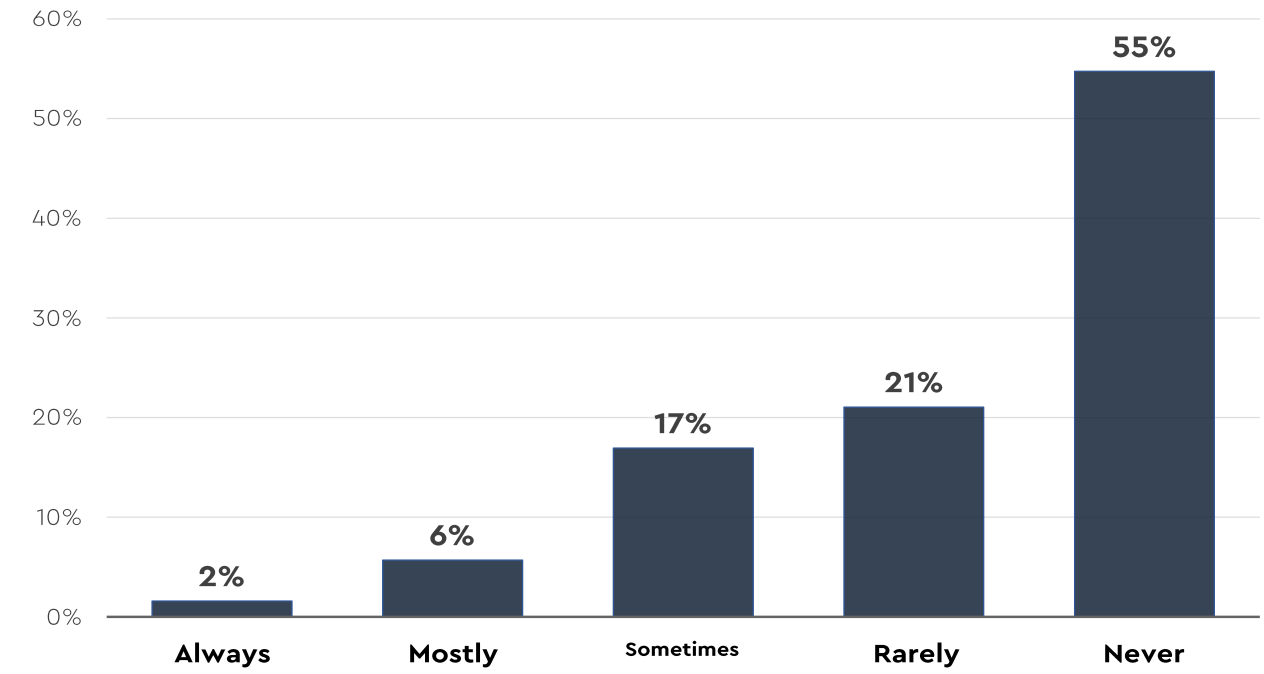
4- (Always or mostly) 22% of households in the city have to borrow in order to pay for medical expenses, as well as 35% of households (sometimes) have to borrow to pay for medical expenses, as it is shown in the diagram (2-5).

Digram (2-5) : Do you have to borrow money to pay for you health expenditure?



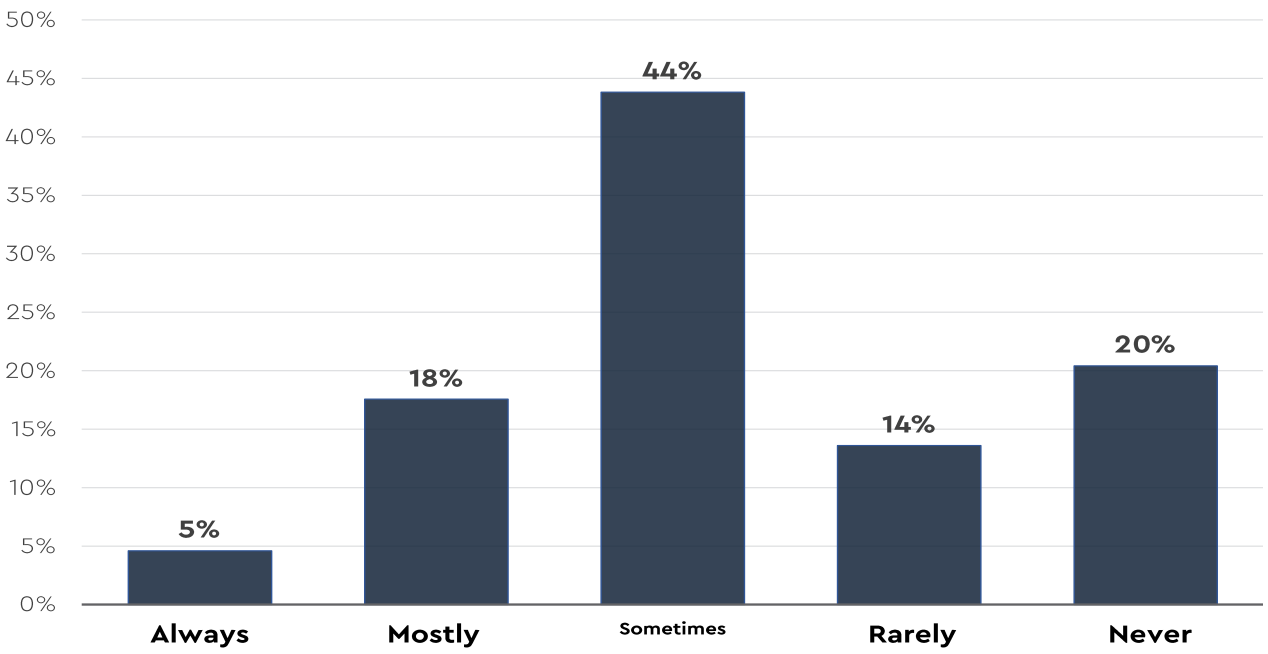
5- (Always or mostly) 8% of households in the city have to sell some of their properties to pay for health expenses, as well as 17% of households (sometimes) have to sell some of their properties to pay for medical expenses, as it is shown in the diagram (2-6).

Digram (2-6) : Do you have to sell some of your properties to pay for your health expenditures?



6- (Always or mostly) 23% of households in the city have to reduce their expenditures on basic needs to pay for medical expenses, as well as 44% of households (sometimes) have to reduce their expenditures on basic needs to pay for medical expenses, as it is shown in the diagram (2-7).

Digram (2-7) : Do you have to reduce spending on basic needs to pay for your health expenditures?

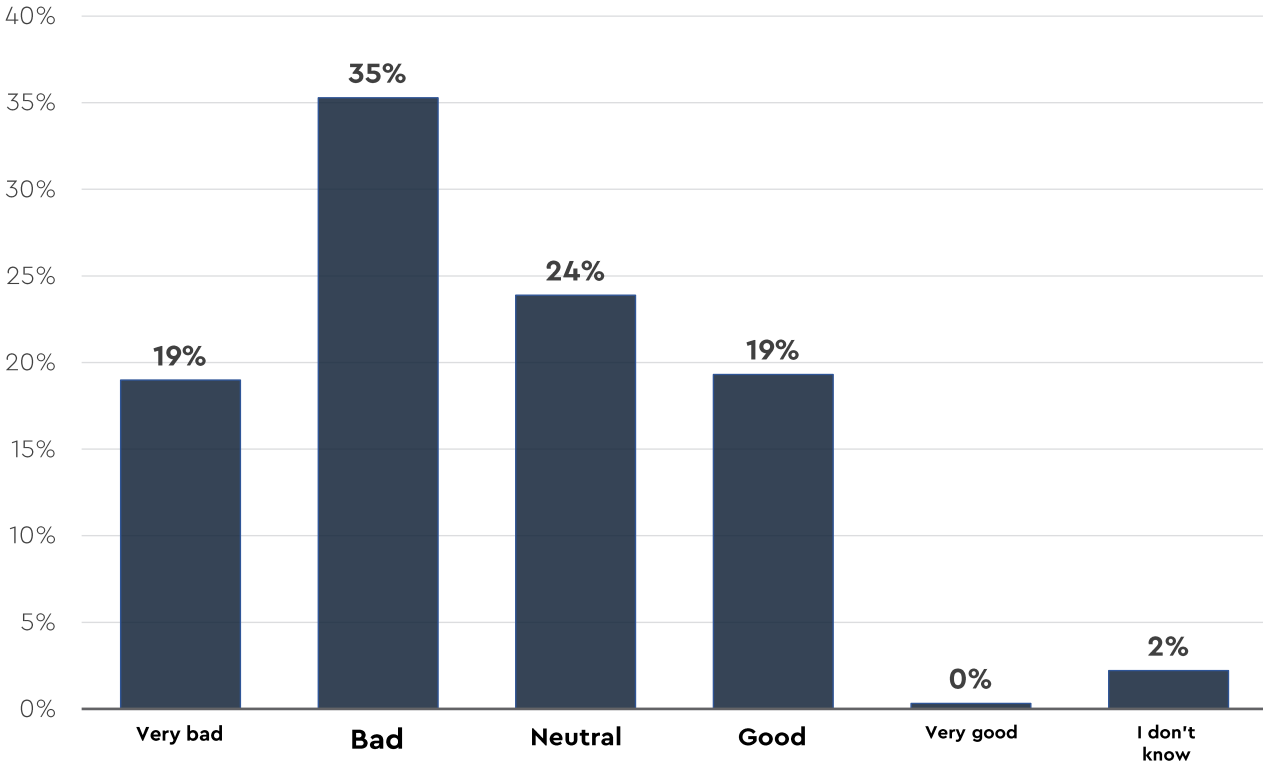


Third: Evaluating the general reality of health care

Results of the study show big problems in the general reality of health care, some of which are relate to health institutions in the public sector like governmental hospitals and health centers, and other problems are related to health services provided by the private sector.

Governmental institutions, especially governmental hospitals, suffer from bad services they provide, that is 35% of households in the city see that health services in these hospitals are bad, and 19% of households see these services very bad, as it is shown in the diagram (3-1).

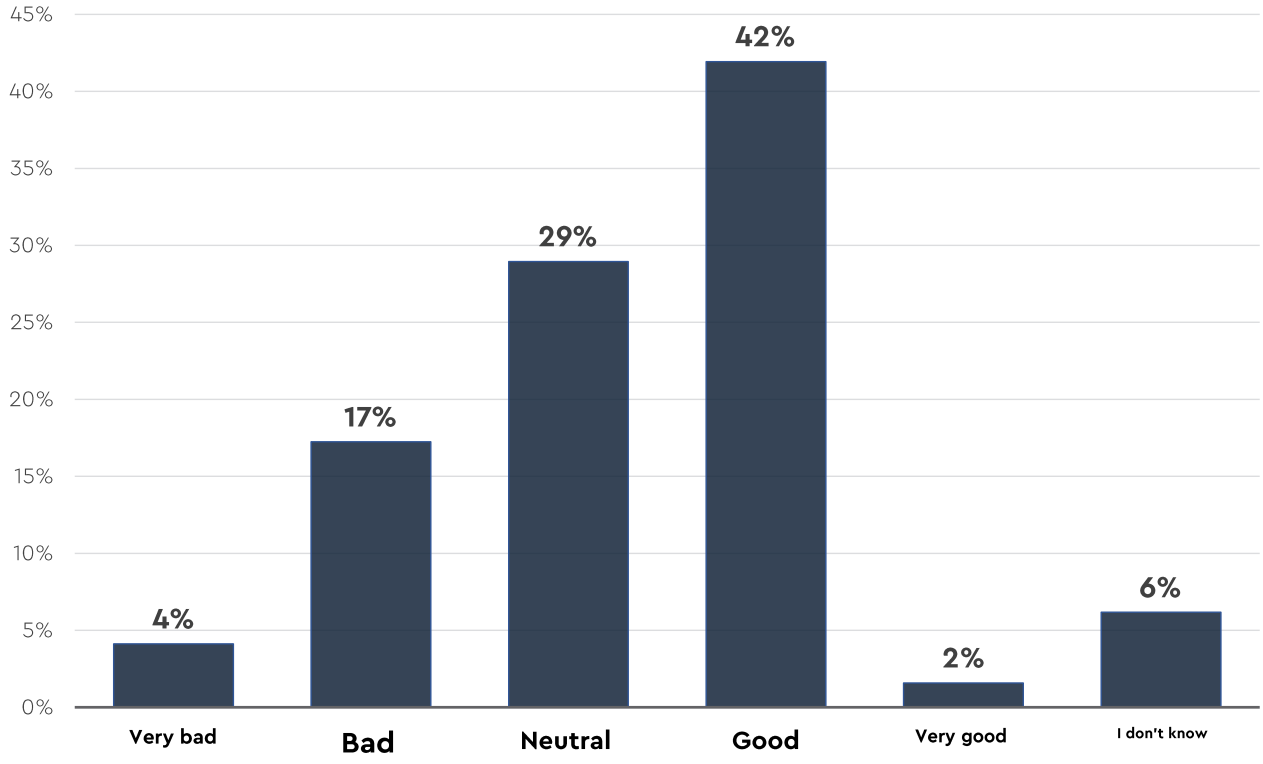
Digram (3-1) : How do you evaluate health services in Governmental hospitals?



And regulatory procedures in these hospitals are bad from the point view of doctors, as it is shown in the diagram (3-2).

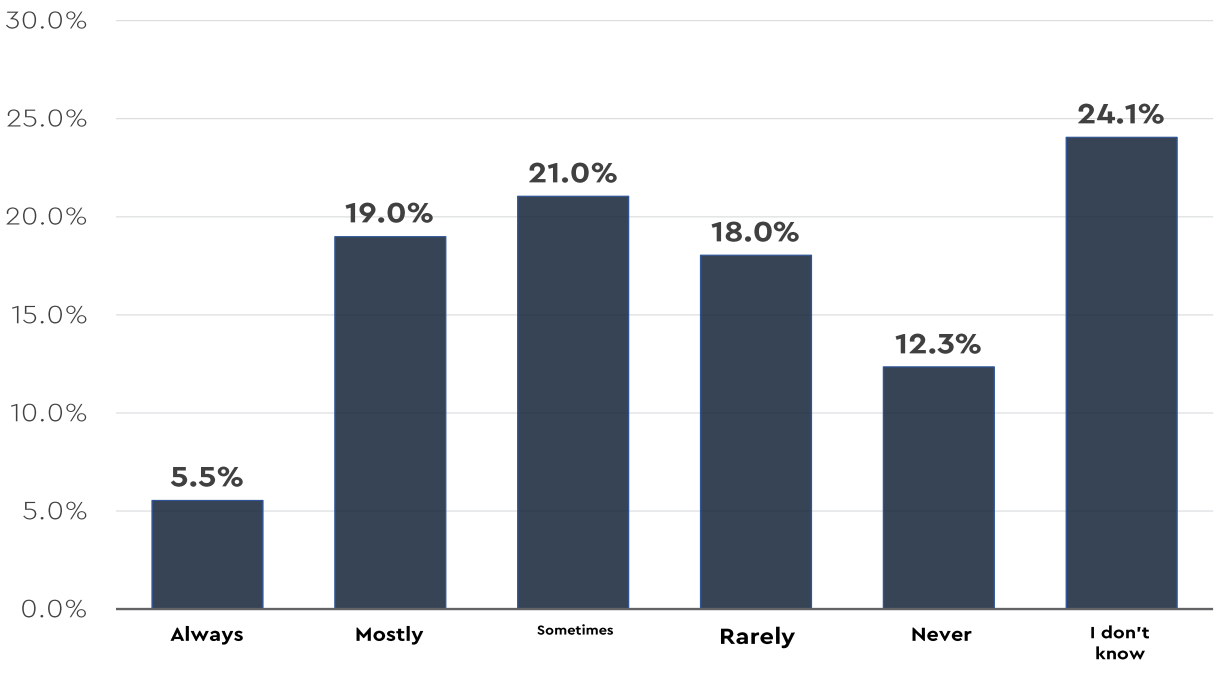
As for evaluating governmental health centers by household of the city, they see them better, that is 44% of households see services in the governmental health centers good, nevertheless, 17% of households see that services provided by these centers are bad, while 4% see that these services are very bad, as it is shown in the diagram (3-2).

Digram (3-2) : How do you evaluate health services in Governmental hospitals?



One of the problems households in the city face is that ambulances are not available at the right time when ordered, that is 30% of households see that ambulances (always or mostly) are not available at the right time when ordered, whereas 21% of households see that (sometimes) ambulances are not available at the right time when they are ordered, as it is shown in the diagram (3-3).

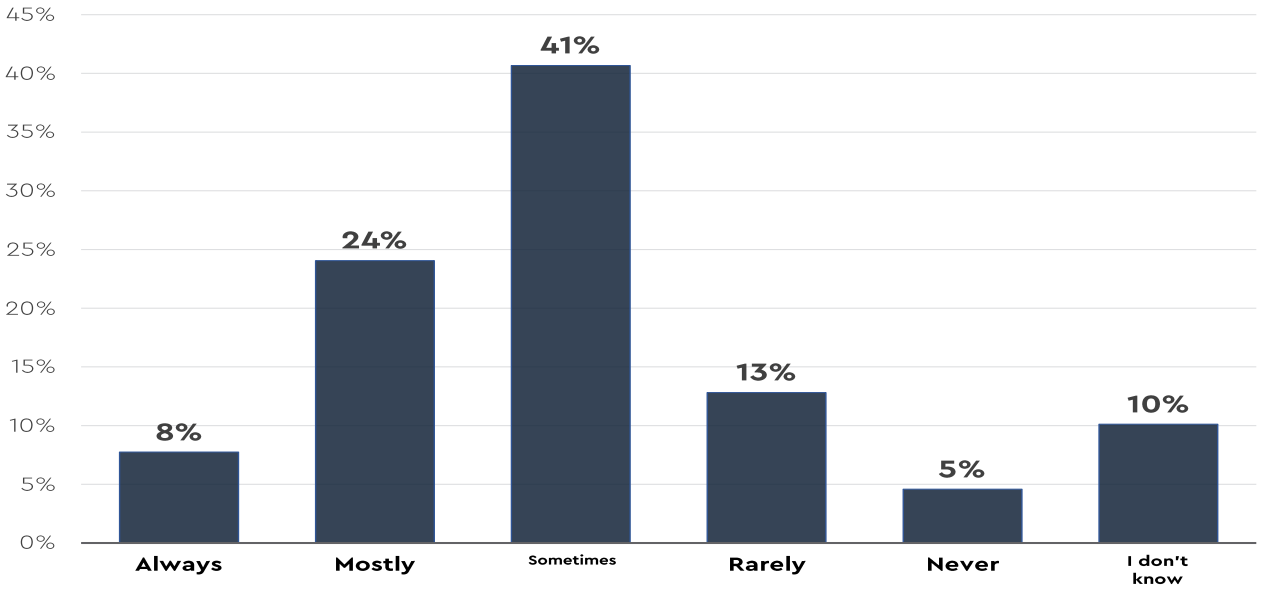
Digram (3-3) : Are ambulances available at the right time when ordered?



Regarding services provided by institutions of the private sector, households in the city face problems, the most important of which are:

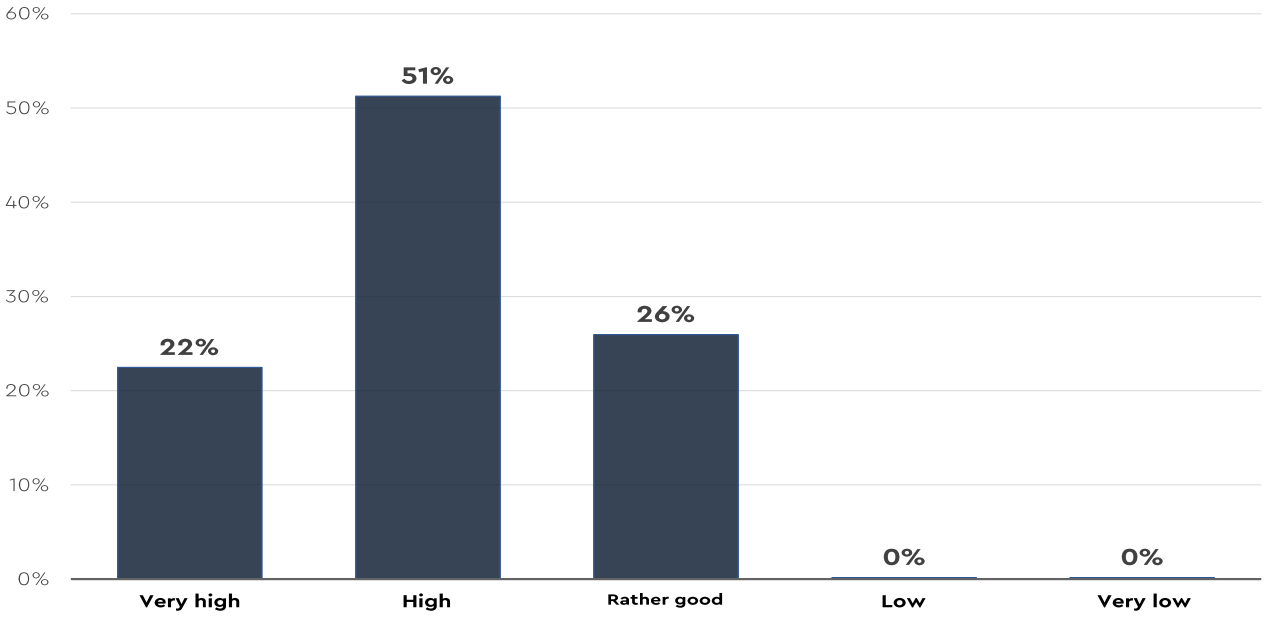
1- Difficulty determining the specialty of the doctor that suits their health condition, consequently, a patient have to visit more than one doctor until he finds the suitable doctor and this leads to waste money in visiting doctors who do not have to do with his health condition. Results of the survey shown in the diagram (3-4) show that 32% of respondents (always or mostly) face this problem.

Digram (3-4) : Can you determine the medical specialty you need for your condition?



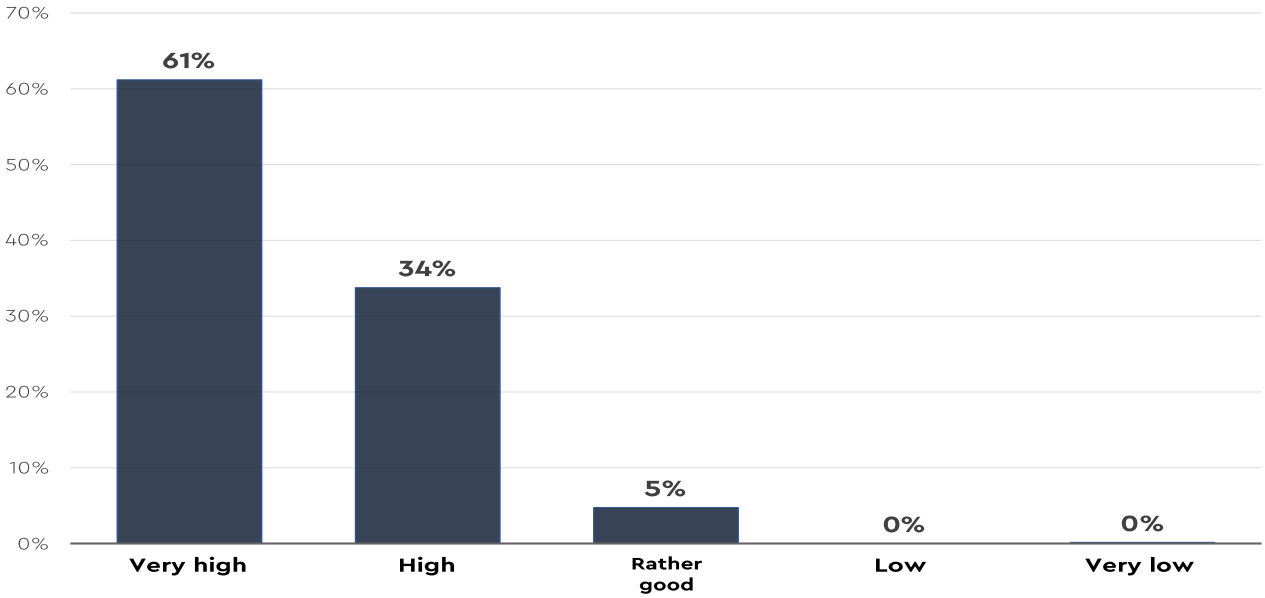
2- High fees of medical examination, that results of the survey, as it is shown in the diagram (3-5), indicate that 73% of respondents see that fees of medical examination for most of the doctors are high or very high.

Digram (3-5) : What is your evaluation of the level of medical examination fees for most doctors in your city?



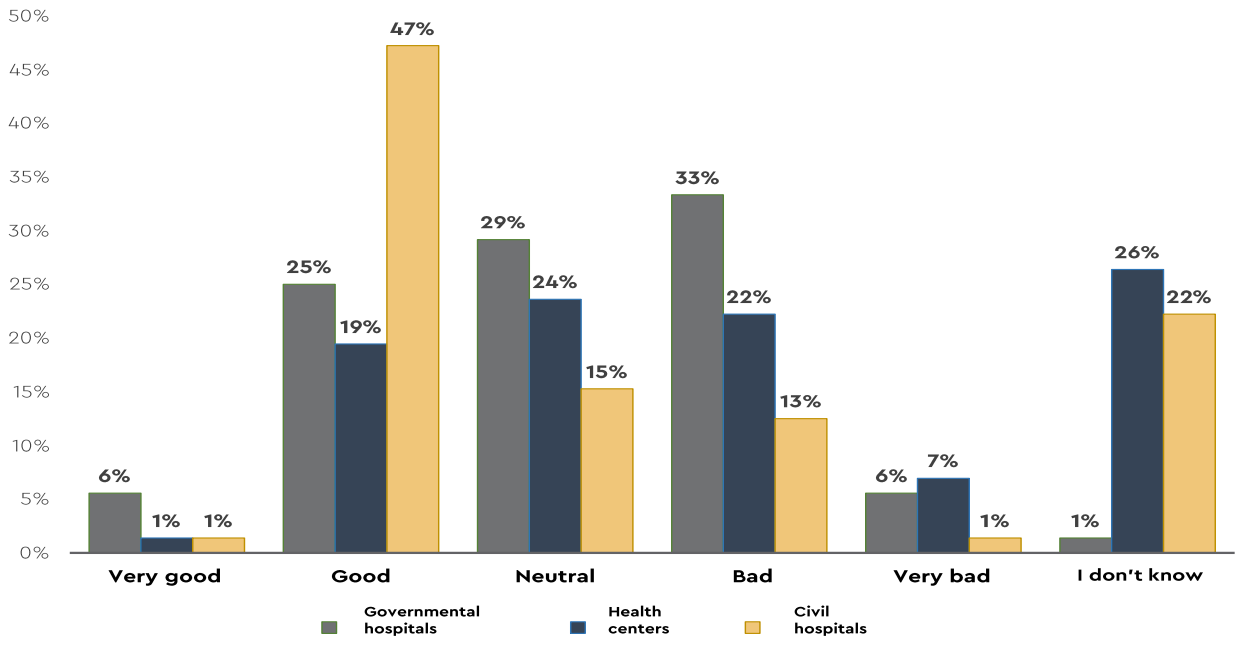
3- High drug prices in most of pharmacies, that results of the survey, as it is shown in the diagram (3-6), show that 93% of respondents see that the level of drug prices in most of the pharmacies are high or very high.

Digram (3-6) : What is your evaluation of the level of prices of medicines in most pharmacies of your city?



4- Failures in regulatory procedures in governmental hospitals and health centers compared to civil hospital, that 39% of doctors see that regulatory procedures in governmental hospitals are bad or very bad, compared to 31% who see these procedures good or very good, while at the level of health centers 29% of doctors see these procedures bad or very bad, compared to 20% who see them good or very good. In addition to that 48% of doctors see regulatory procedures in civil hospitals good or very good, in contrast, 14% of doctors see them bad or very bad, as it is shown in the diagram (3-7).

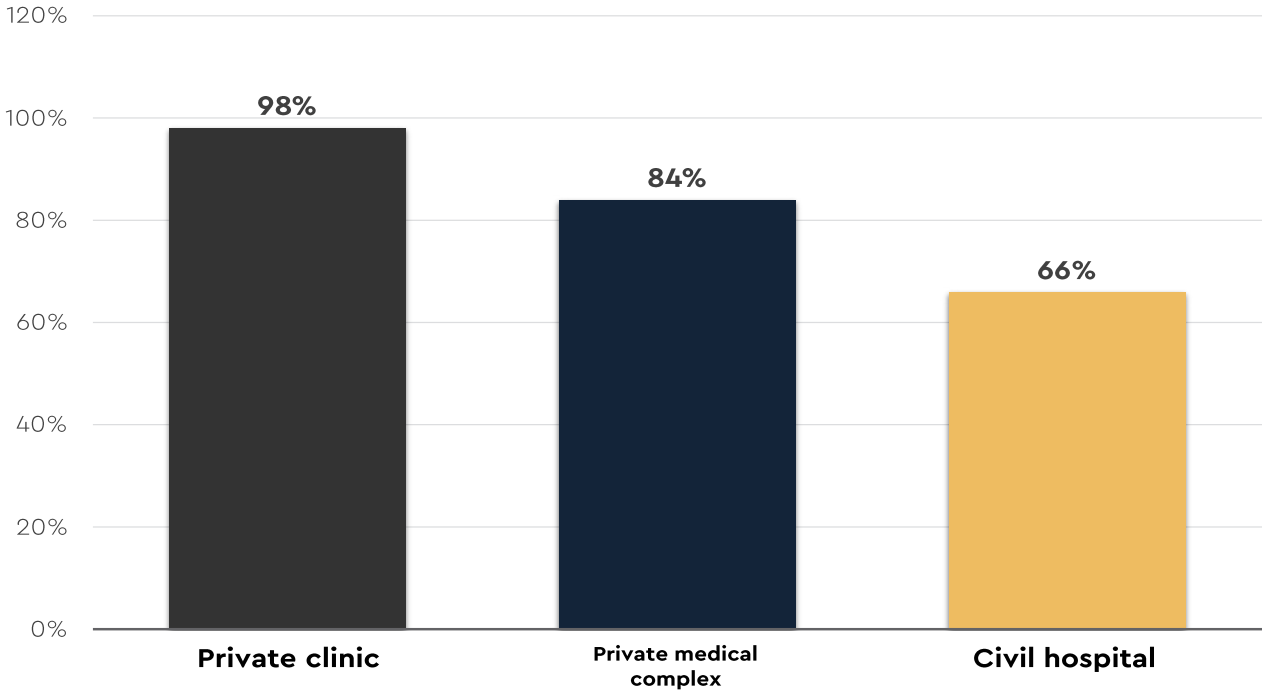
Digram (3-7) : What's your evaluation for the regulatory procedures in health institutions?



Fourth: evaluating the reality of civil health institutions:

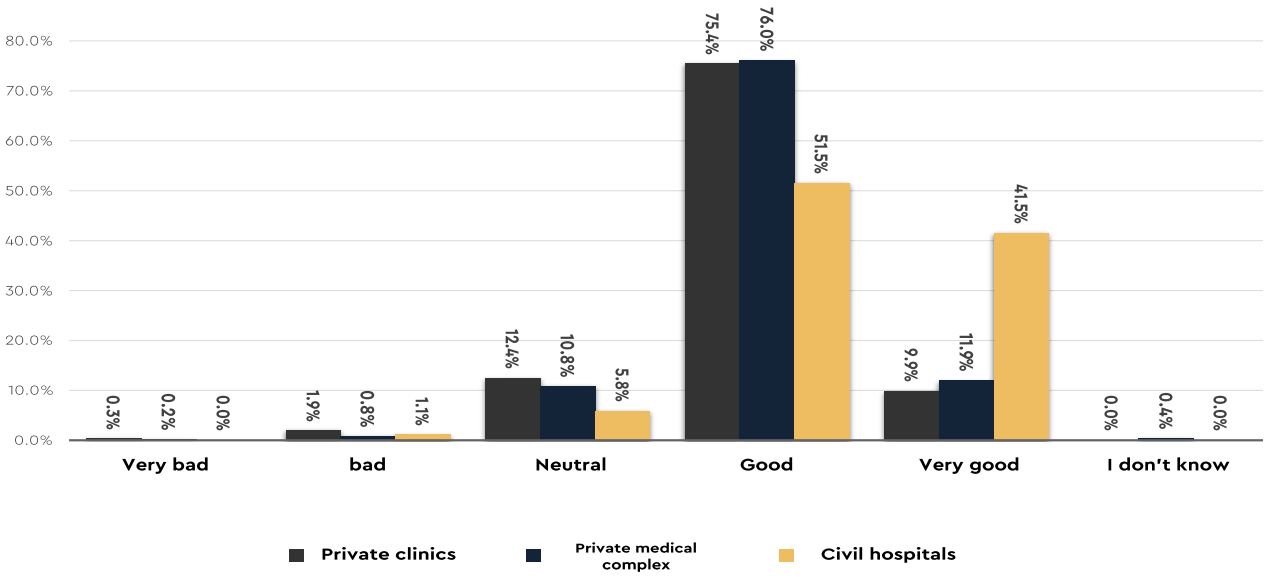
Results of the survey show high percentage of respondents who visited civil health institutions. Private medical clinics are at the top in importance in the number of visiting respondents (98%), then comes the private medical complexes (84%), after that the civil hospital come (66%), as it is shown in the diagram (4-1).

Digram (4-1) : Ratio of visitors f civil health institution



As for evaluating services of these institutions in general by households, they are averagely good with a relative advantage in quality to the civil hospitals, as it is shown in the diagram (4-2).

Digram (4-2) : What's your evaluation of health services?



In a more detailed way, from the point view of households, civil health institutions have the following advantages:

1- Good amenities in waiting rooms, as it is shown in the diagram (4-3).

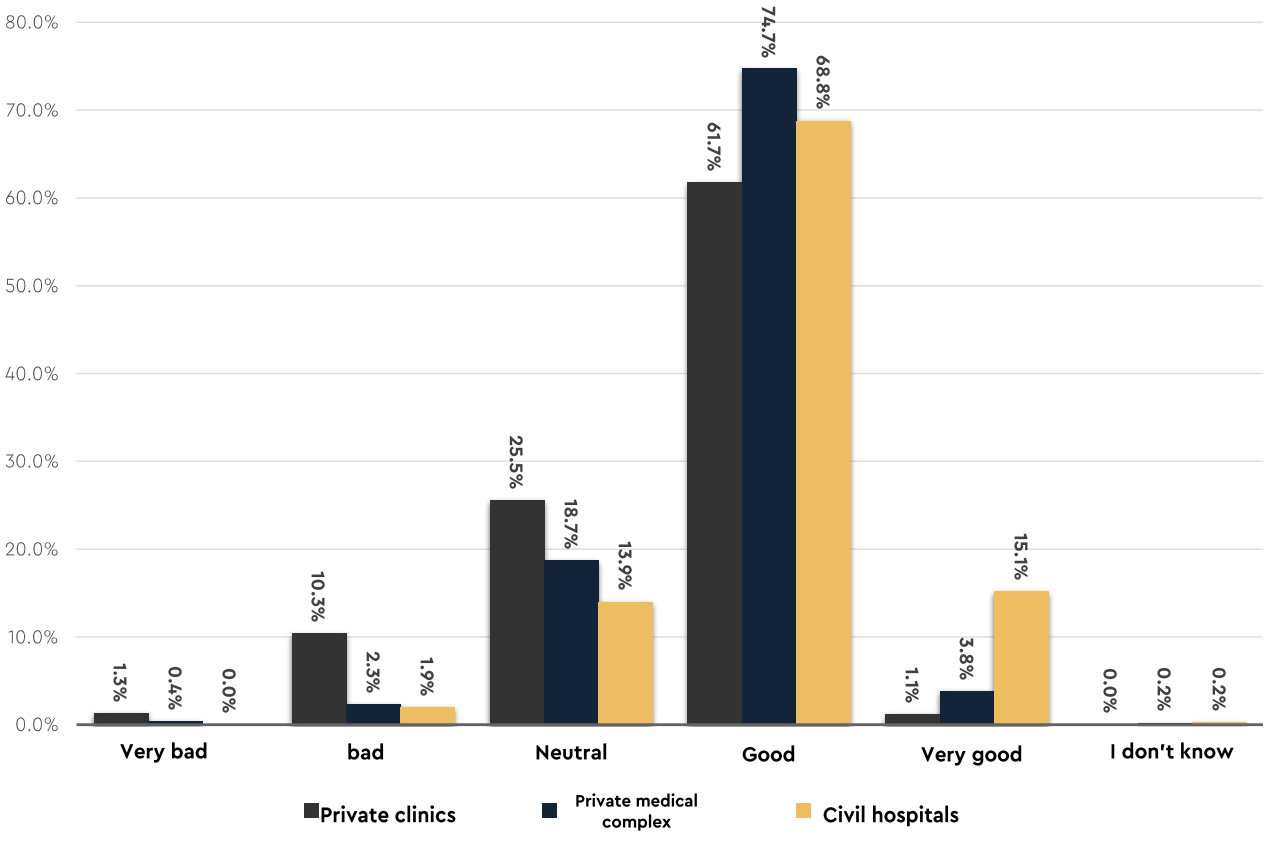
2- Clean bathrooms especially in civil hospitals, and at a less degree in medical complexes, and a least degree in private medical clinics, as it is shown in the diagram (4-4).

3- Modern technological devices, as it is shown in the diagram (4-5).

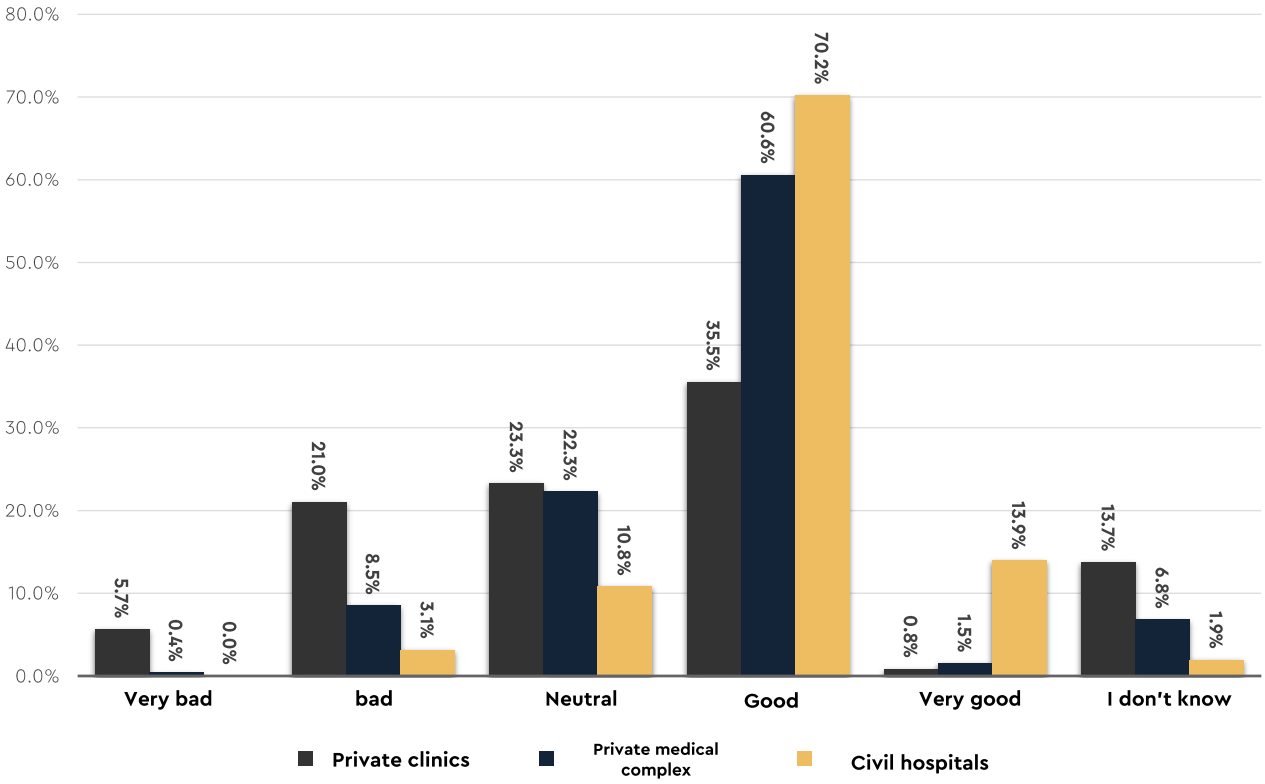
4- Good medical receptionists, as it is shown in the diagram (4-6).

5- Efficient doctors, as it is shown in the diagram (4-7).

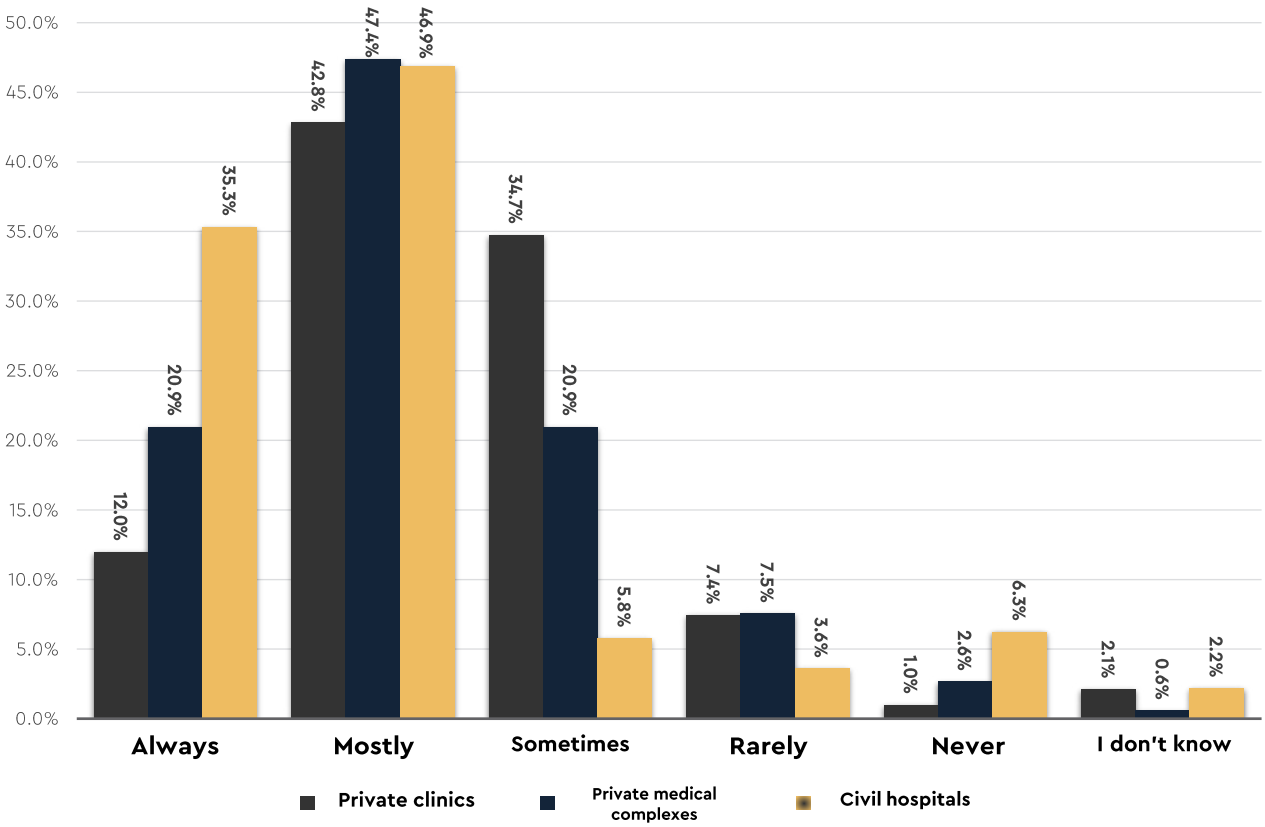
Digram (4-3) : What's your evaluation of amenities available in waiting rooms?



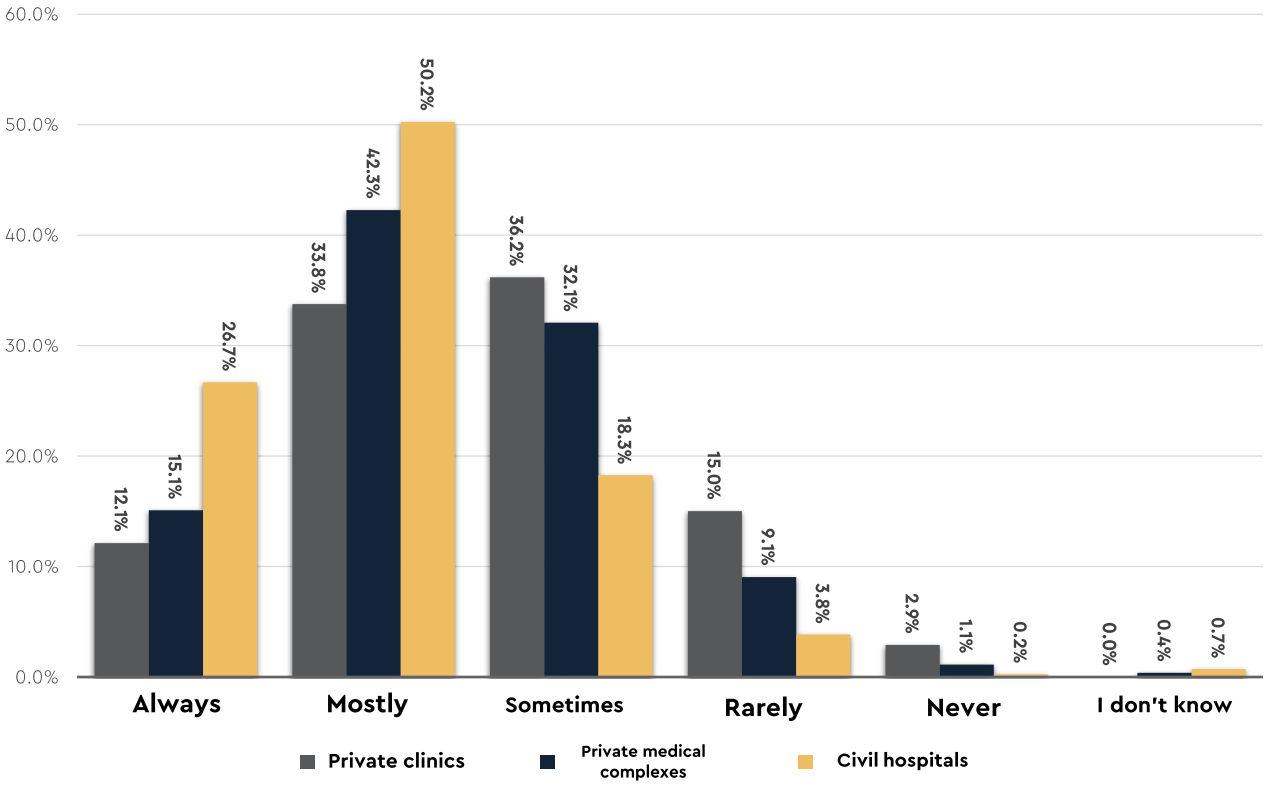
Digram (4-4) : What's your evaluation of cleanliness of bathrooms in waiting rooms



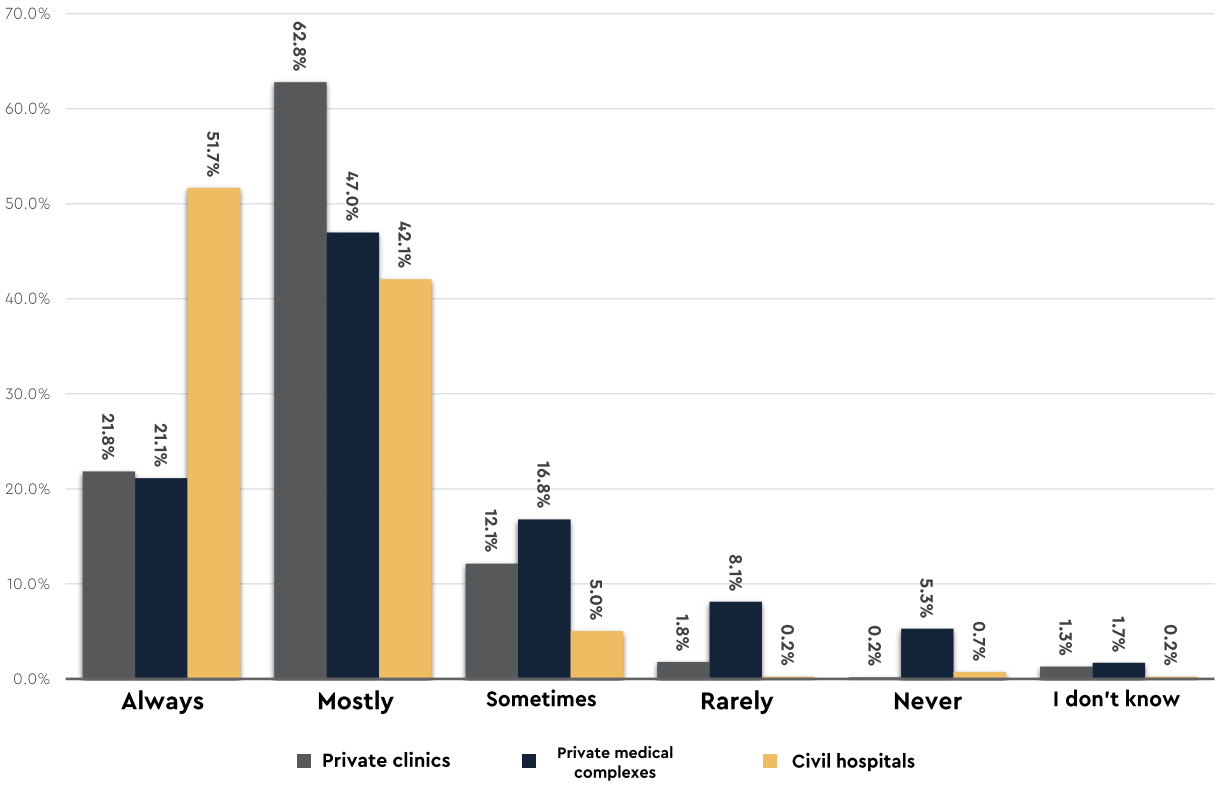
Digram (4-5) : Are modern medical devices available?



Digram (4-6) : Do you feel comfortable when dealing with a medical secretary?



Digram (4-7) : Are there qualified doctors?



In contrast, civil health institutions- especially private medical clinics and medical complexes- from the point of view of households suffer from the following problems:

1- Long registration period, as it is shown in the diagram (4-8).

2- Large number of visitors in waiting rooms, as it is show in diagram (4-9).

3- Small number of parking lots, as it is shown in diagram (4-10).

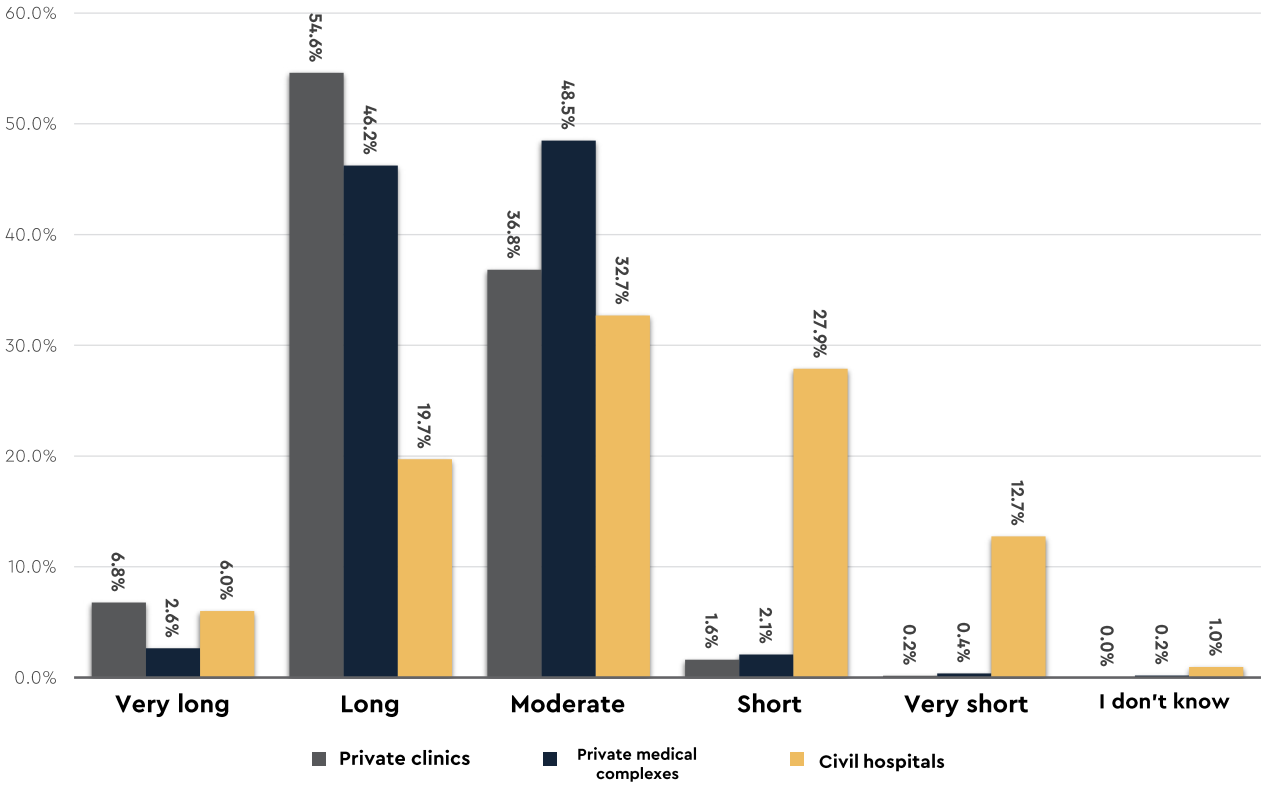
4- Small number of elevators, as it is shown in diagram (4-11).

5- More than one patient (sometimes) enter the room of examination at the same time, as it is shown in diagram (4-12).

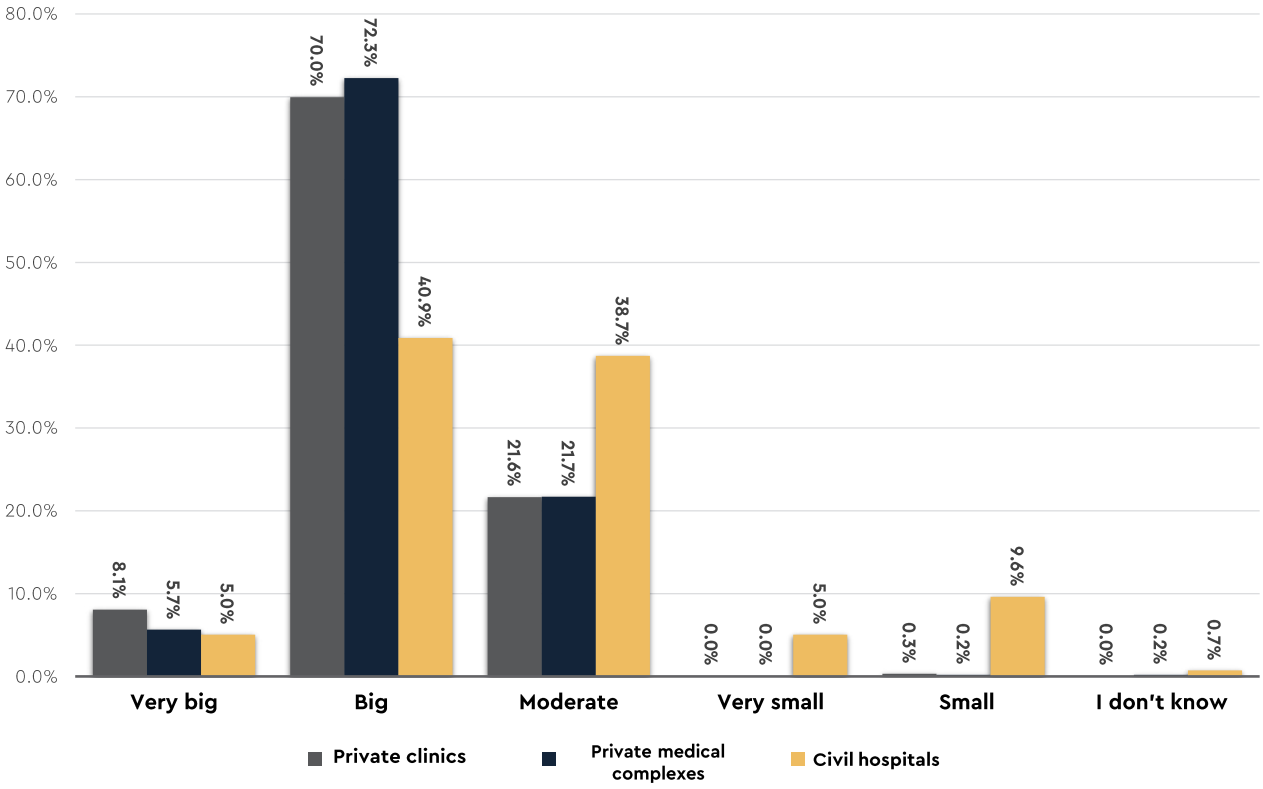
6- Fit-in appointments (sometimes), as it is shown in diagram (4-13).

7- they are often closed in the morning during the official hours of work or late at night, as it is shown in the diagram (4-14).

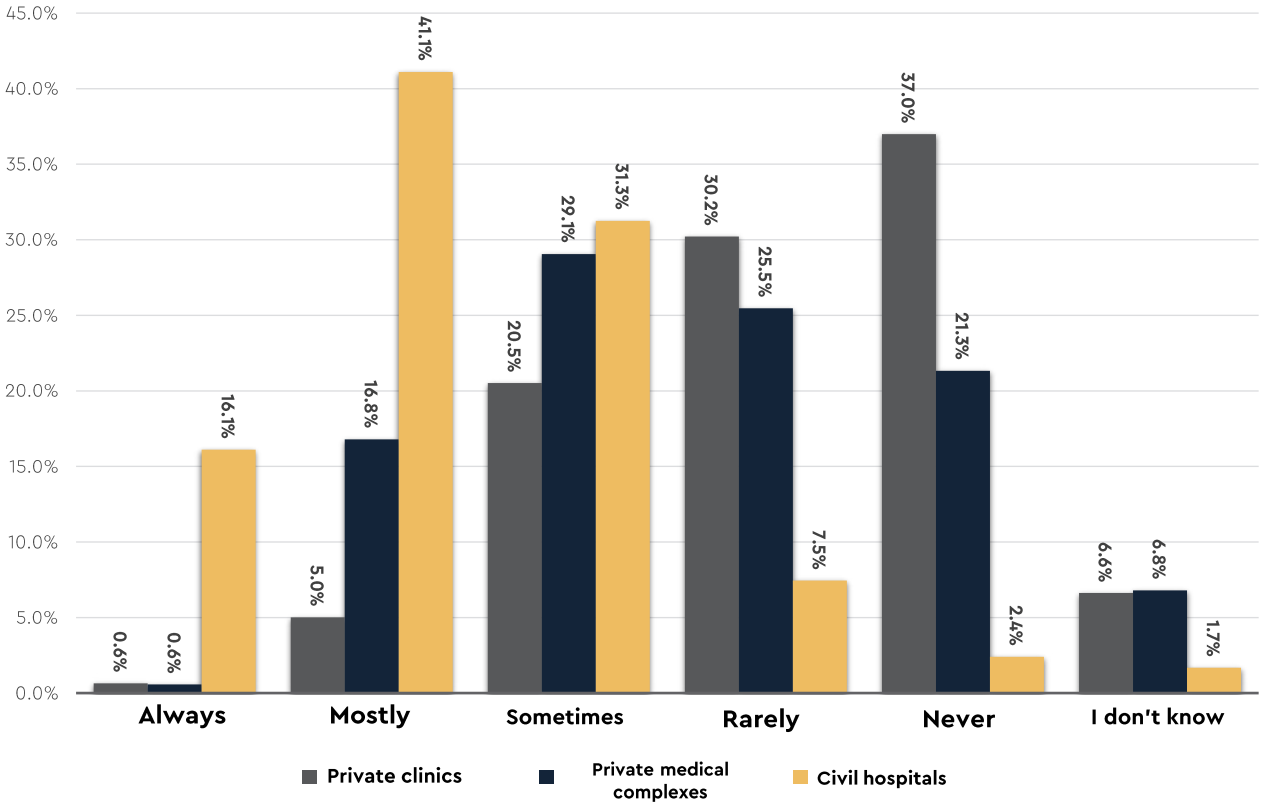
Digram (4-8) : What's your wvaluation of time for booking a doctors appointment?



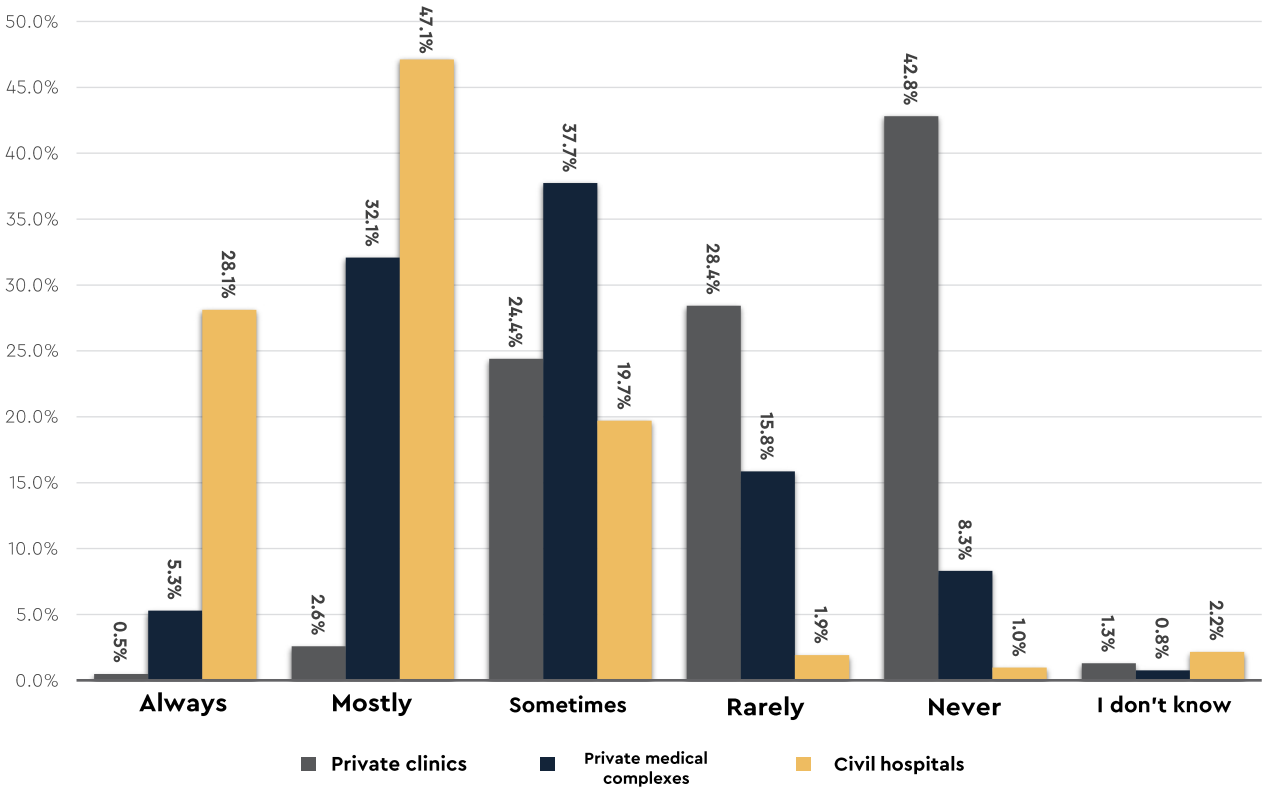
Digram (4-9) : What's your evaluation of the number of visitors of doctors in waiting rooms?



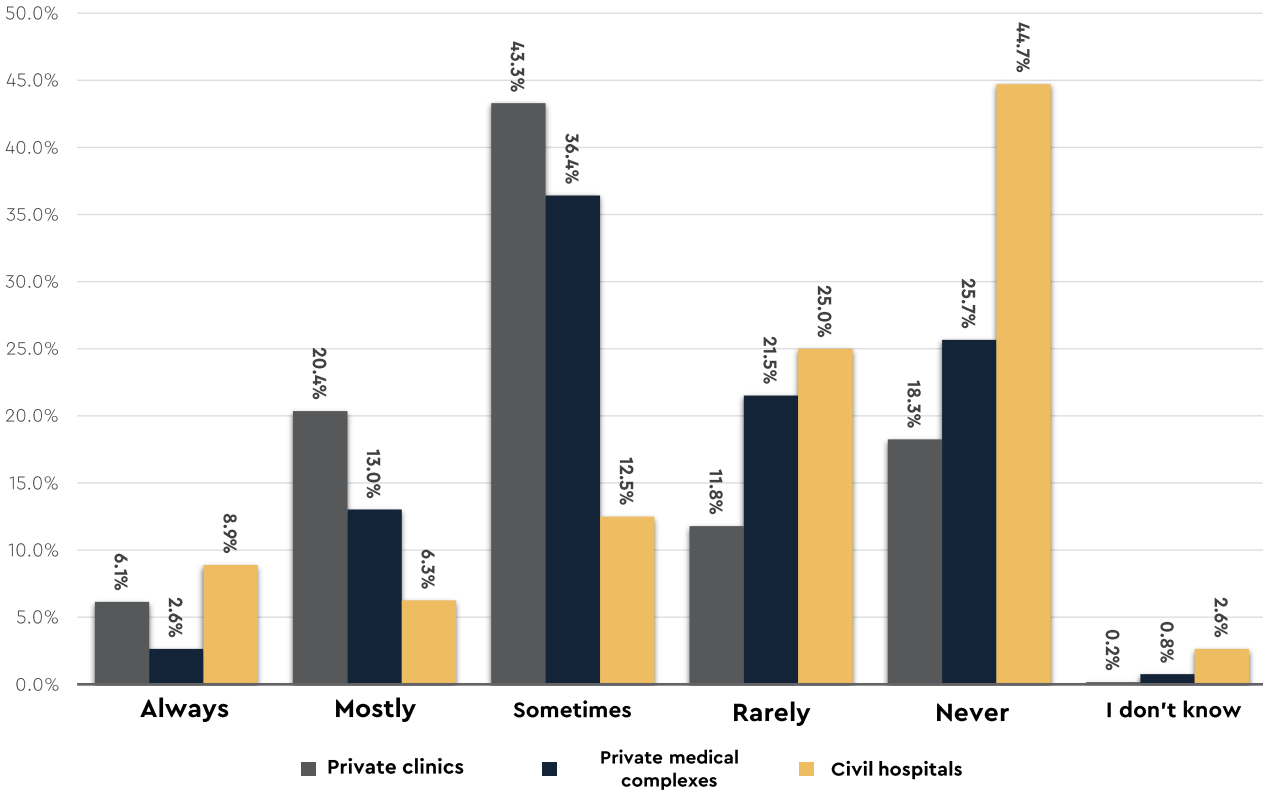
Digram (4-10) : Are near parking lots for cars available?



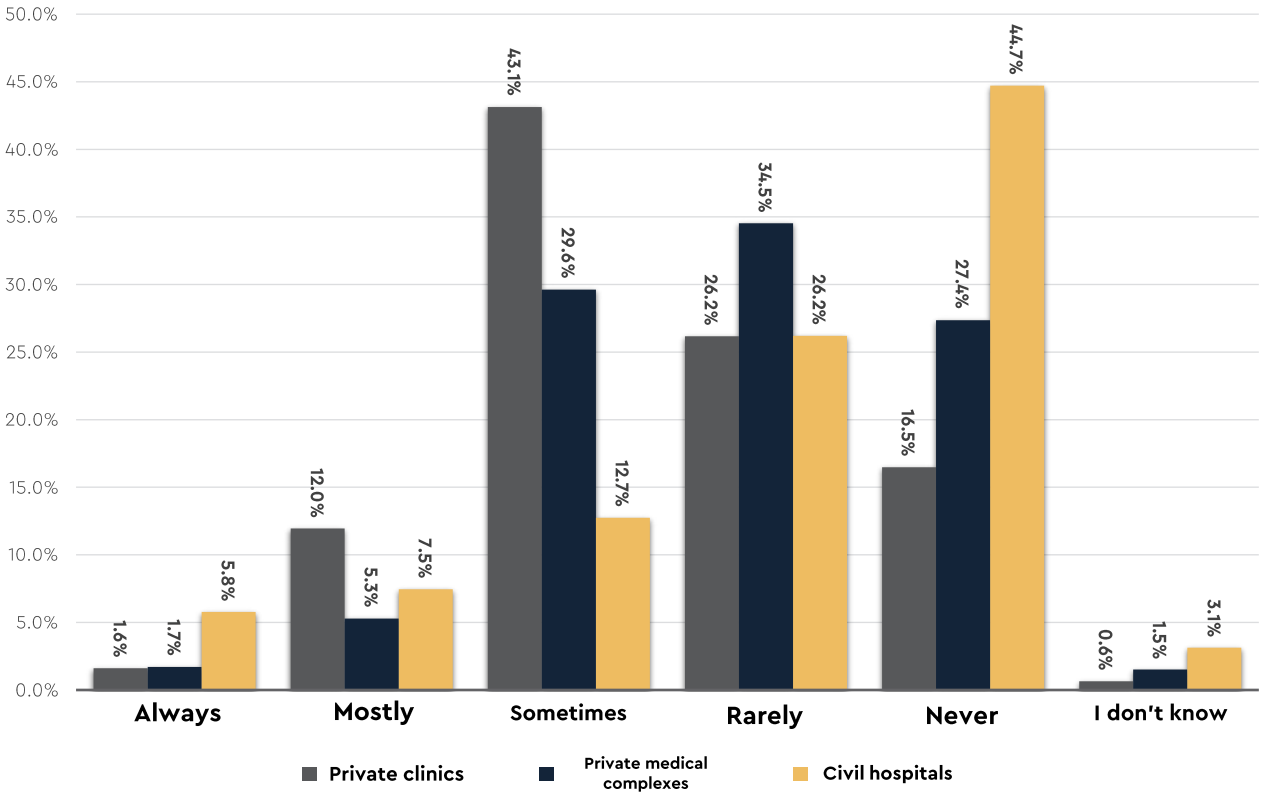
Digram (4-11) : Are there elevators?



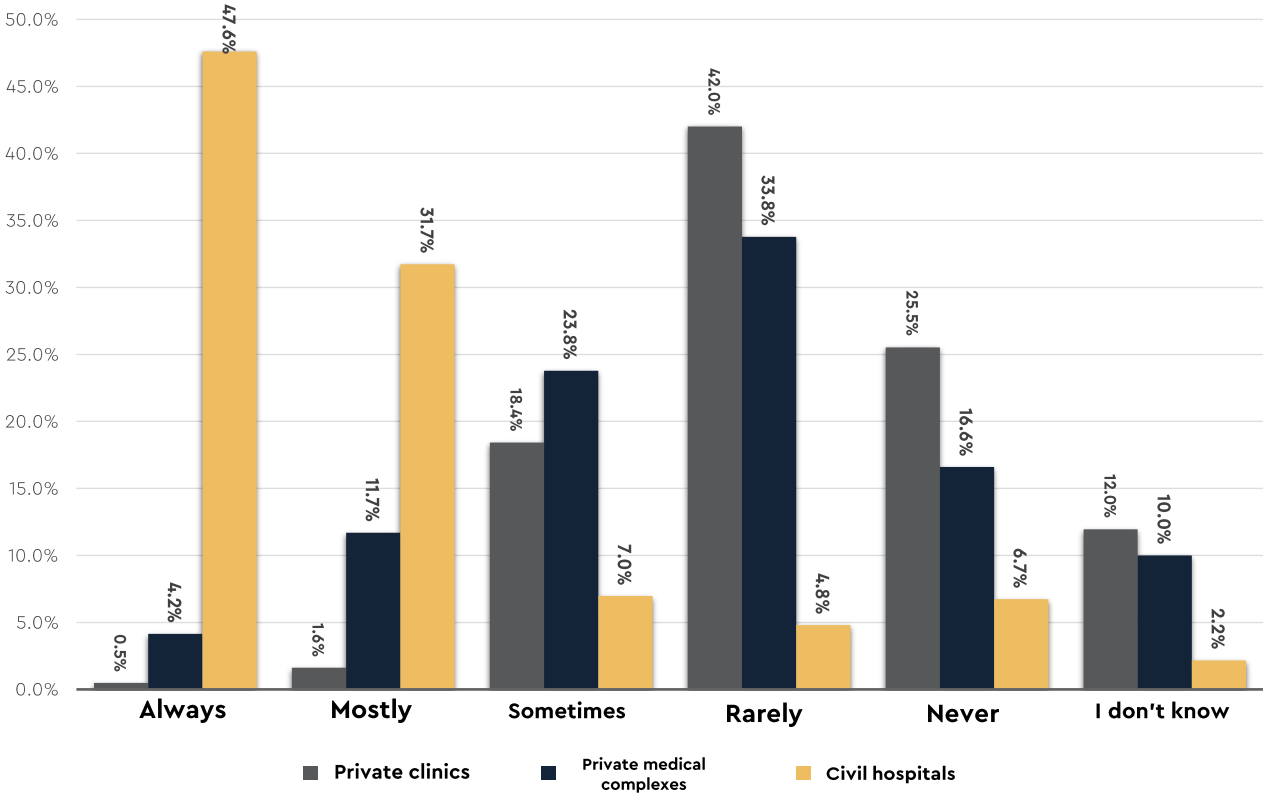
Digram (4-12) : Have you ever noticed more than one patient entering at the time the exam room of a doctor



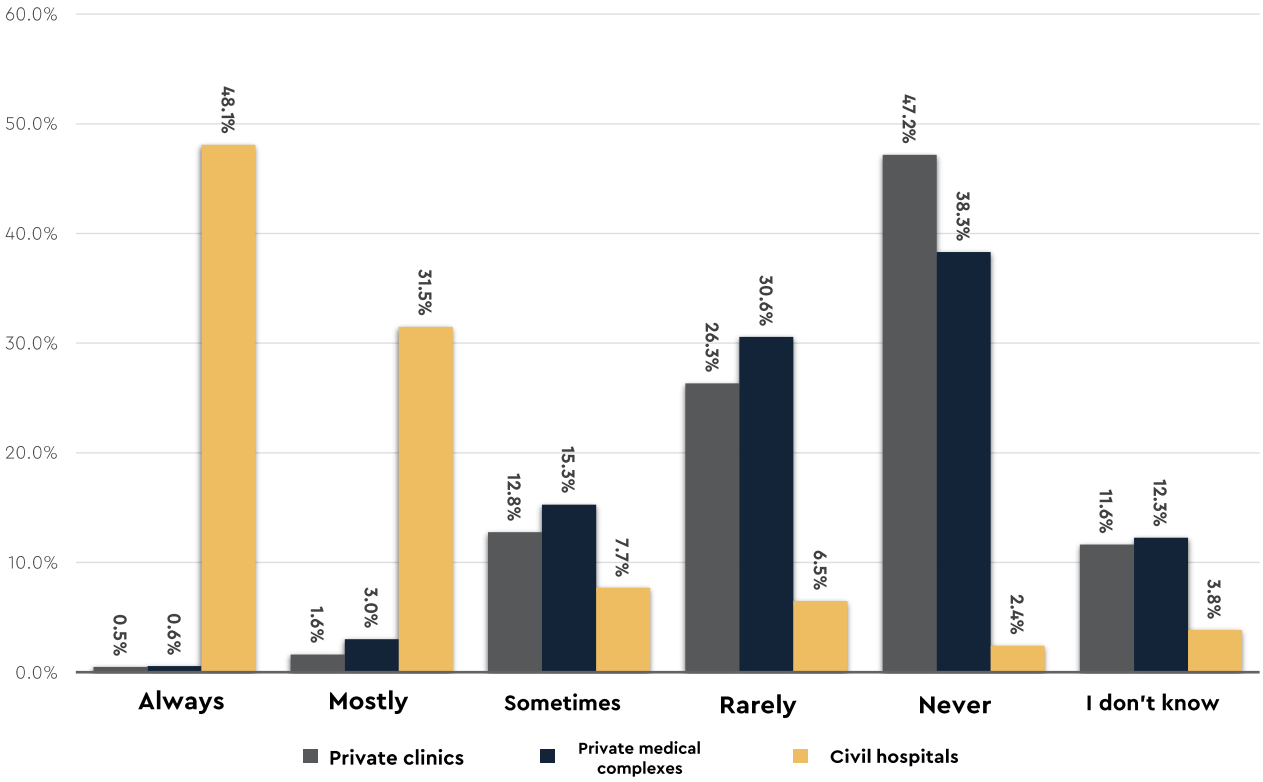
Digram (4-13) : Are there fit-in appointments while waiting to visit a doctor?



Digram (4-14) : Do you think that you can find these institutions open during the official hours of work



Digram (4-15) : Do you think that you can find these institutions open late at night



From the point of view of doctors, there are a number of problems that affect quality of services provided by civil heath institutions, the most important of which are:

1- Large number of visitors: 57% of doctors see that large numbers of visitors affect efficiency of medical examination (always or mostly), compared to 8% of doctors who see that they never or rarely have an effect, as it is shown in diagram (4-16).

2- patients do not identify the medical specialty suitable to their medical conditions: 60% of doctors see that the fact that those patients do not identify the medical specialty suitable to their condition affect efficiency of medical examination (always or mostly), compared to 6% of doctors who see that this rarely has an effect, as it is shown in diagram (4-17).

3- small number of ambulances: 40% of doctors see that a small number of ambulances affect efficiency of medical examination (always or mostly), compared to 29% of doctors who see that this never or rarely has an effect, as it is shown in diagram (4-18).

4- low fees of medical examination: 40% of doctors see that the level of fees of medical examination is low or very low, compared to 4% of doctors who see that fees are high or very high, as it is shown in diagram (4-19).

From the point of view of 34% of doctors this problem (always or mostly) affects efficiency of medical examination, while 40% of doctors see that it (never or rarely) has an effect, as it is shown in diagram (4-20).

5- Low efficiency of secretariat in organizing appointment bookings and dealing with visitors: 28% of doctors see that efficiency of secretariat in arranging bookings and dealing with visitors is bad or very bad, compared to 33% who see that it is good or very good, as it is shown in diagram (4-21).

6- Low efficiency of pharmacists in preparing drugs: 26% doctors see that efficiency of pharmacists in preparing drugs is bad or very bad, compared to 42% who see that it is good or very good, as it is shown in diagram (4-22).

7- Low adherence of patients to medical prescription: 43% of doctors see that adherence of patients to prescribed drugs is bad or very bad, compared to 33% who see that it is good or very good, as it is shown in diagram (4-23).

8- The doctor's lack of information about medicines available in pharmacies: 10% of doctors see that their information about medicines available in pharmacies is bad or very bad, compared to 49% who see that it is good or very good, as it is shown in diagram (4-24).

9- Low evaluation of security protection for doctors: 82% of doctors see that security protection for doctors is bad or very bad, compared to 9% who see that it is good or very good, as it is shown in diagram (4-25).

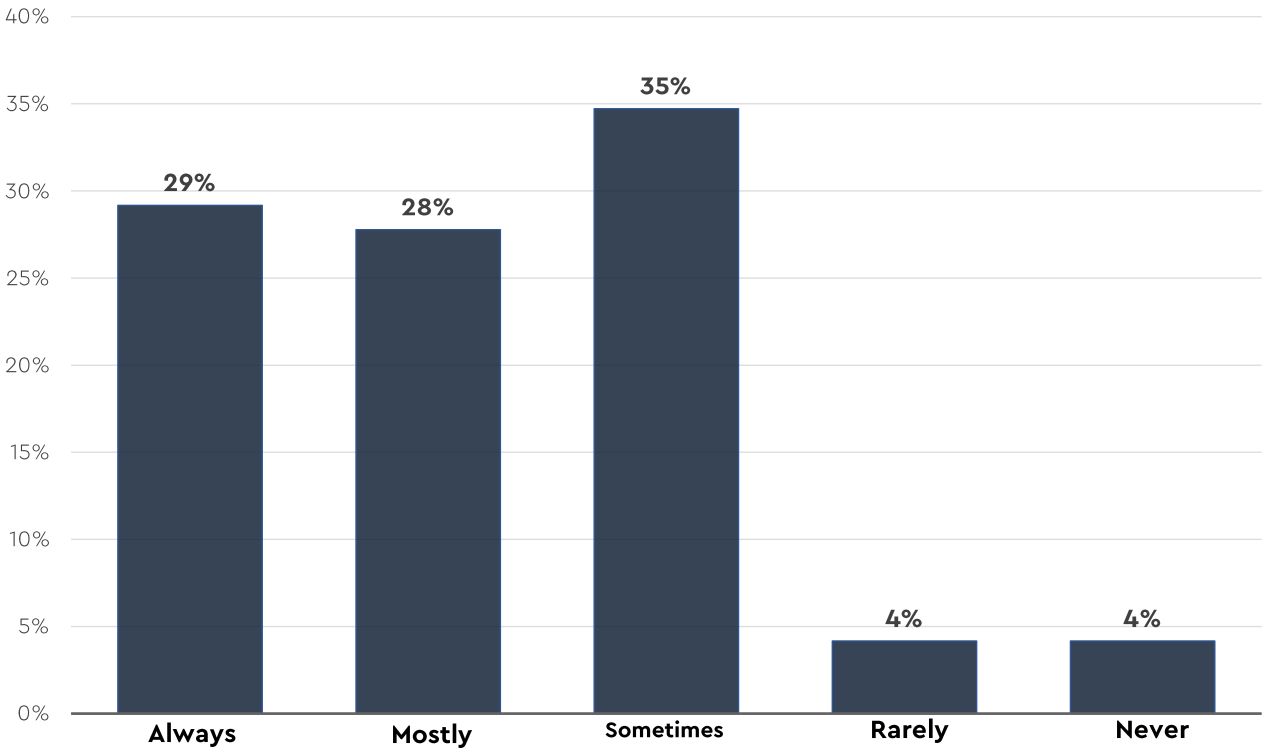
10- Low evaluation of legal protection for doctors: 70% of doctors see that legal protection for doctors is bad or very bad, compared to 14% who see that it is good or very good, as it is shown in diagram (4-26).

11- Low funding available for buying modern medical equipment: 68% of doctors see that funding available for buying modern medical equipment is low or very low, compared to 14% who see that it is good enough or very high, as it is shown in diagram (4-27).

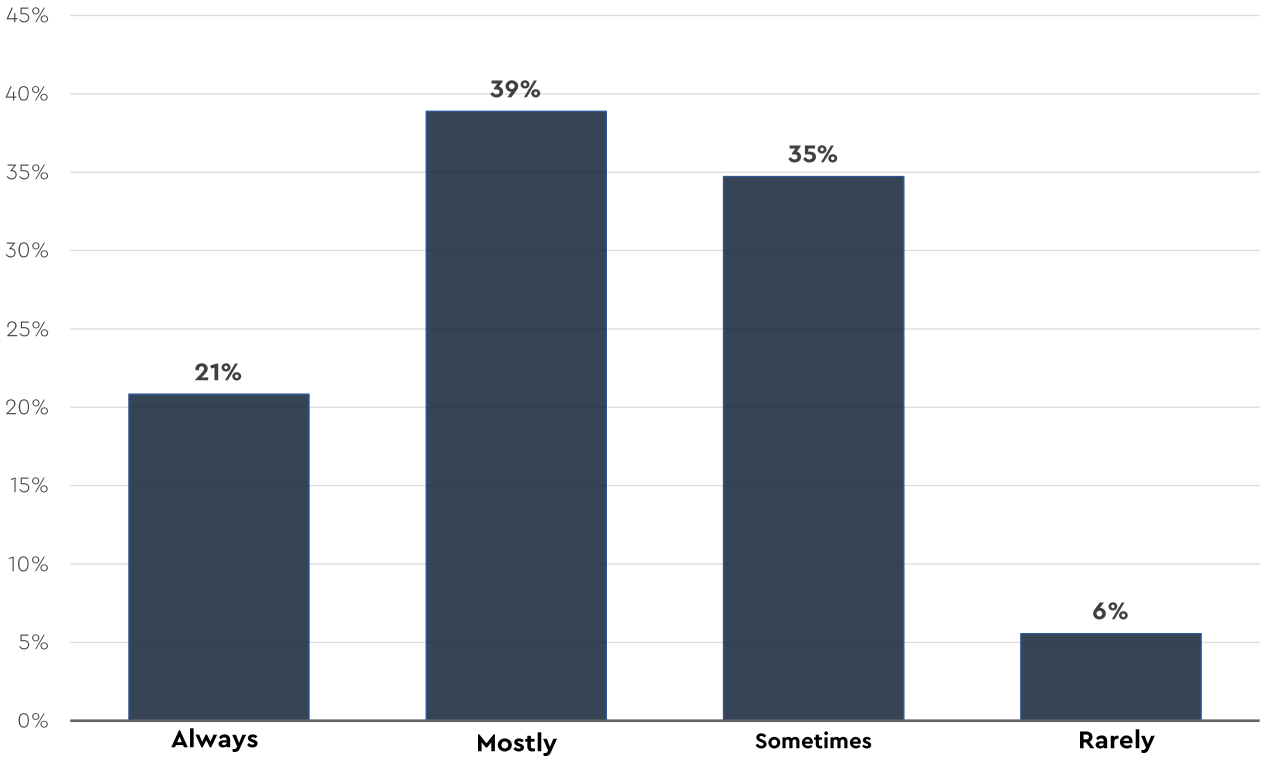
12- High costs of training on running modern medical equipment: 47% of doctors see those costs of training on running modern medical equipment is low or very low, compared to 14% who see that they are high or very high, as it is shown in diagram (4-28).

13- Low funding available for building modern private hospitals: 37% of doctors see that funding available for building modern private hospitals is low or very low, compared to 22% who see that it is good enough or high or very high, as it is shown in diagram (4-29).

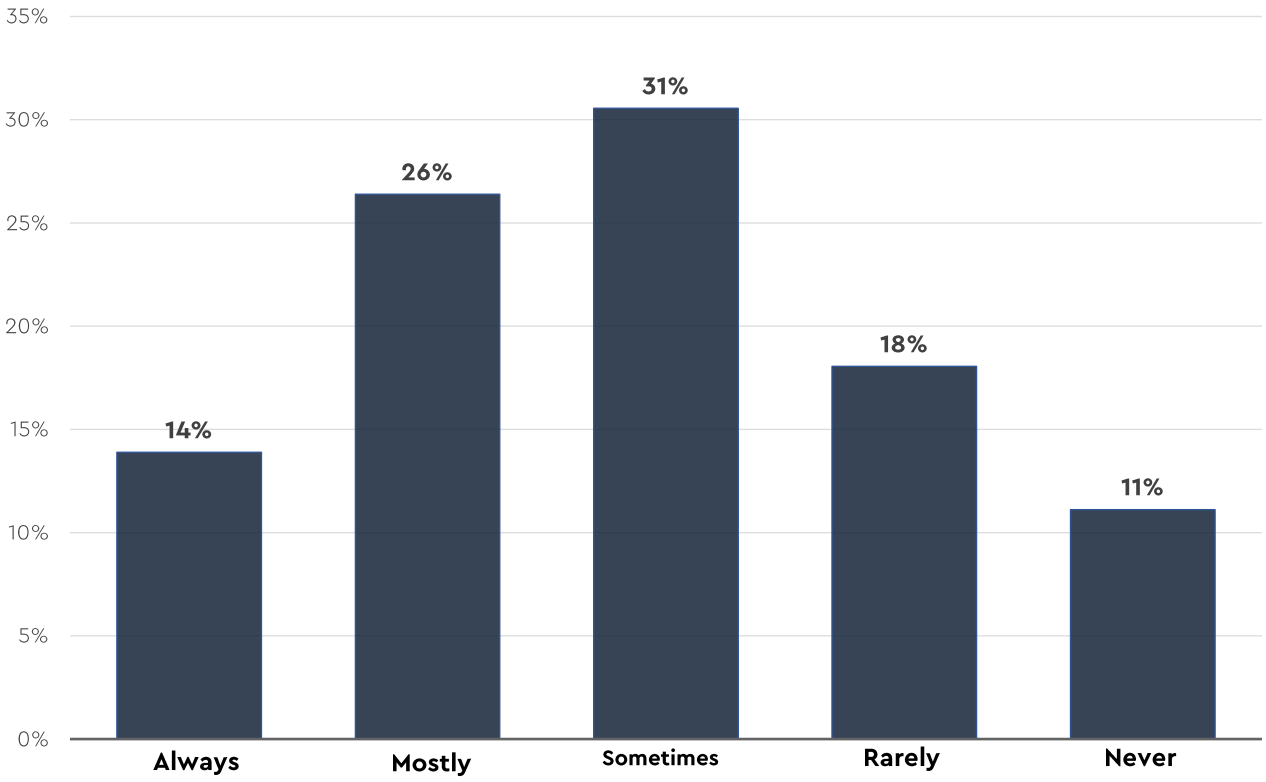
Digram (4-16) : Do large numbers of visitors of doctors affect efficency of medical exam for you?



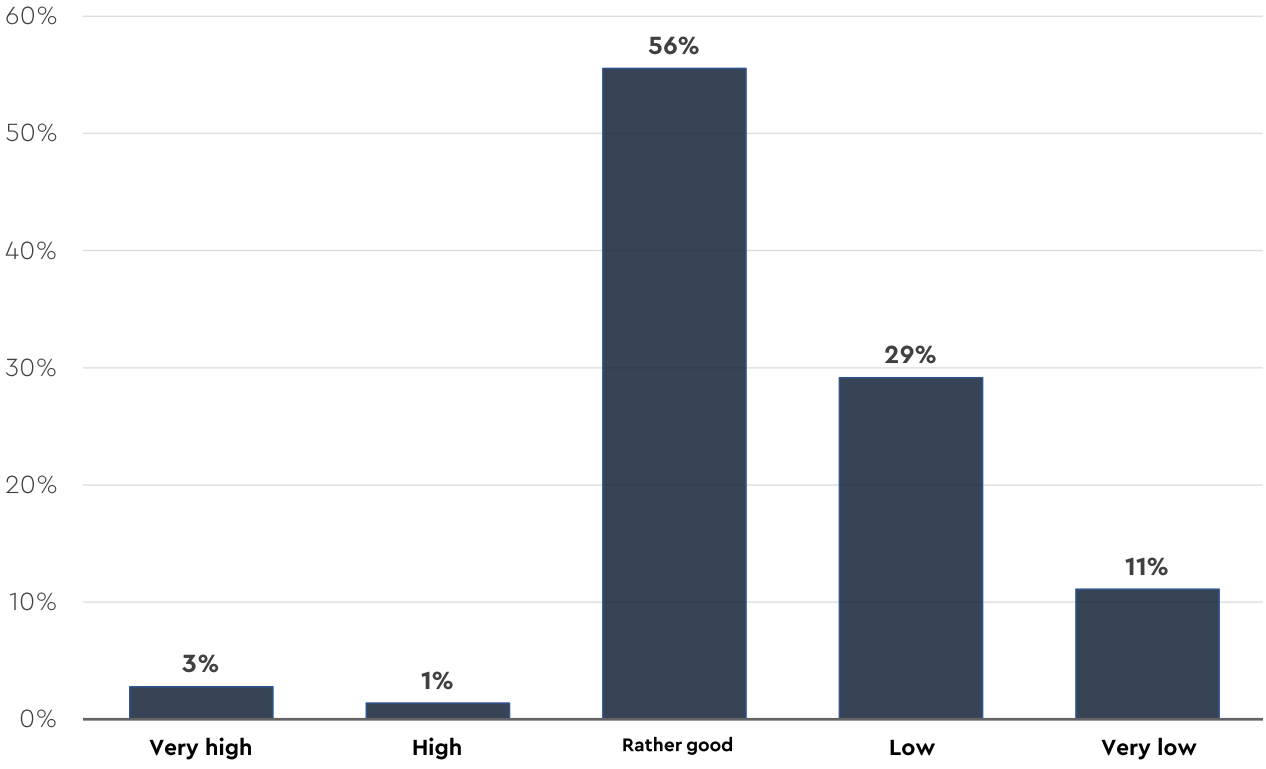
Digram (4-17) : Do you think that not knowing the appropriate specialist to treat your health condition affects efficiency of medical exam?



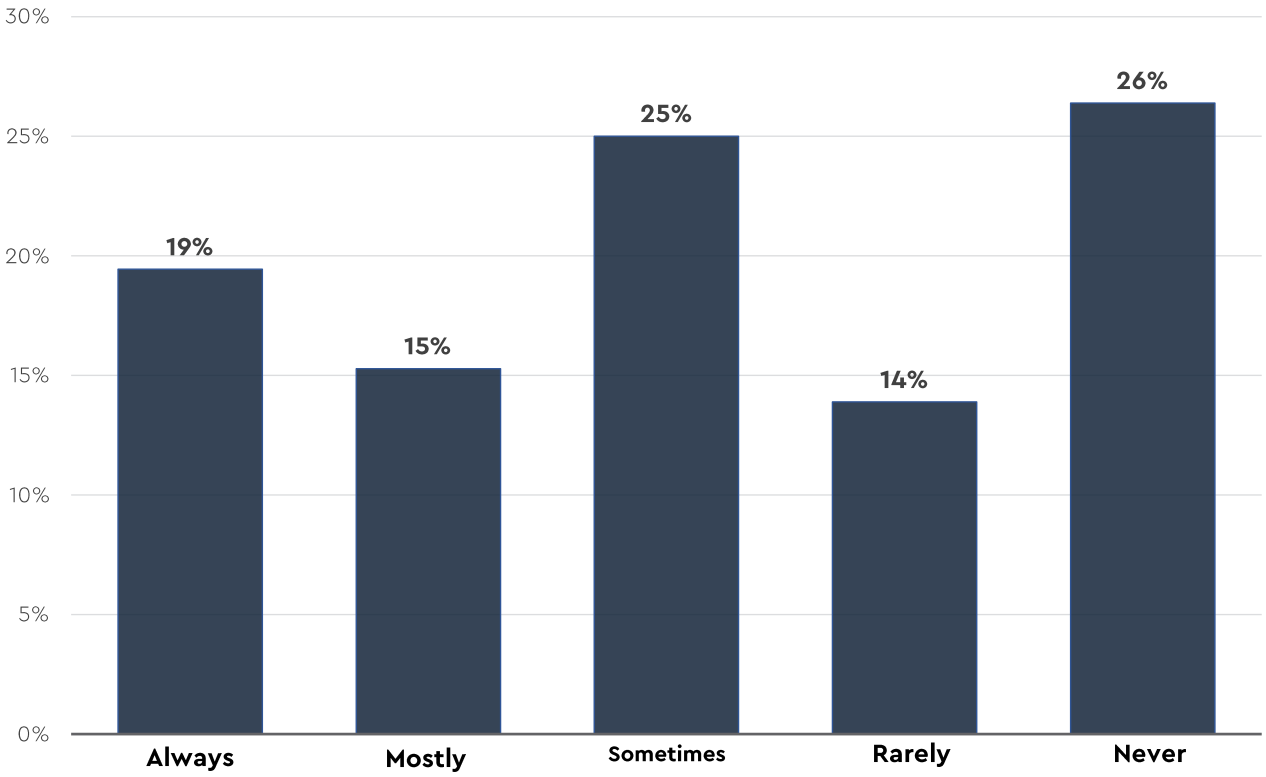
Digram (4-18) : Do small numbers of ambulances affect efficiency of medical examination?



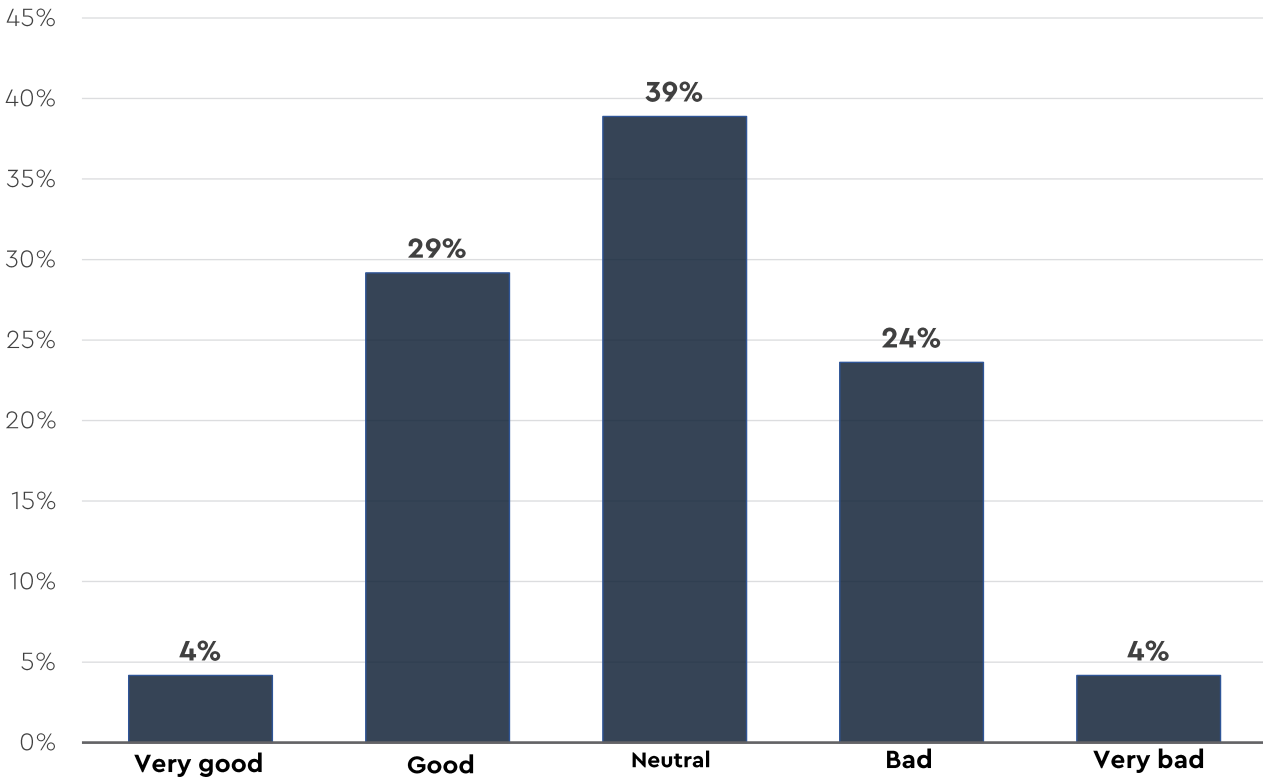
Digram (4-19) : What's your evaluation of fees of medical examination?



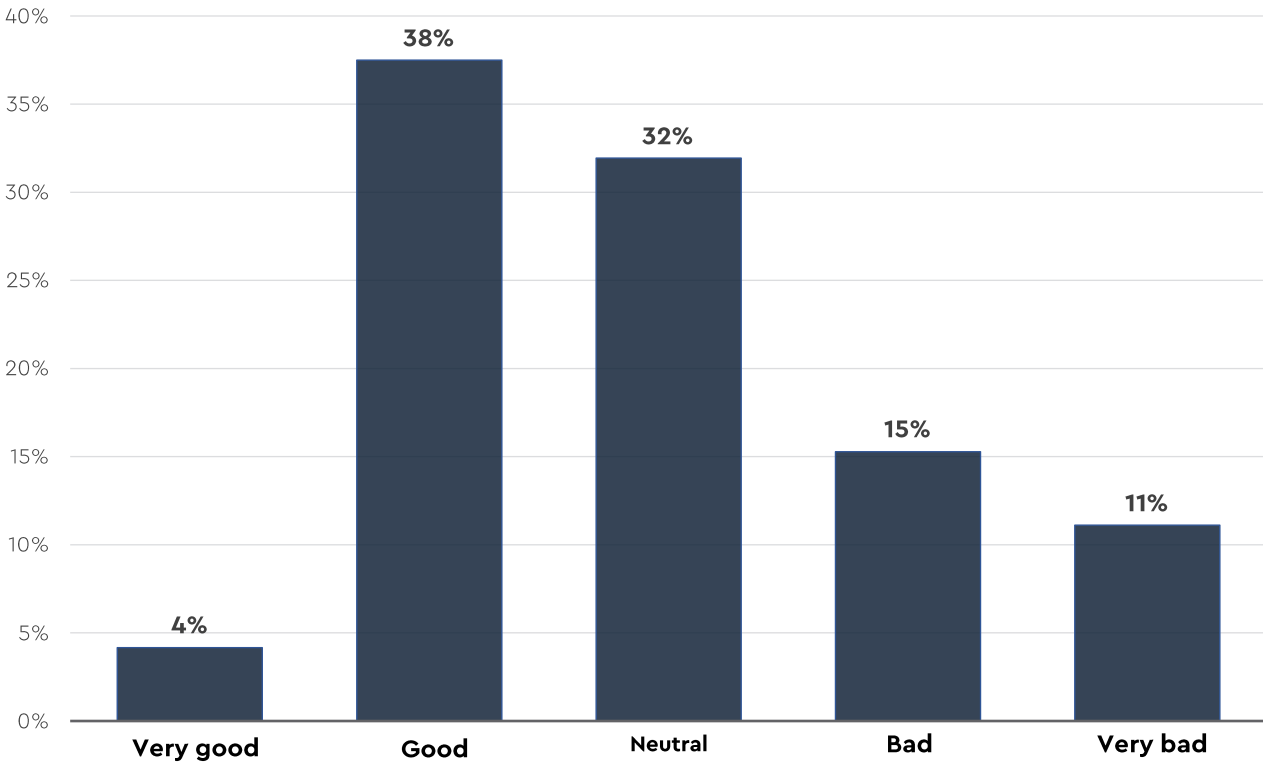
Digram (4-20) : Do loe fees of medical exam affect it's efficiency



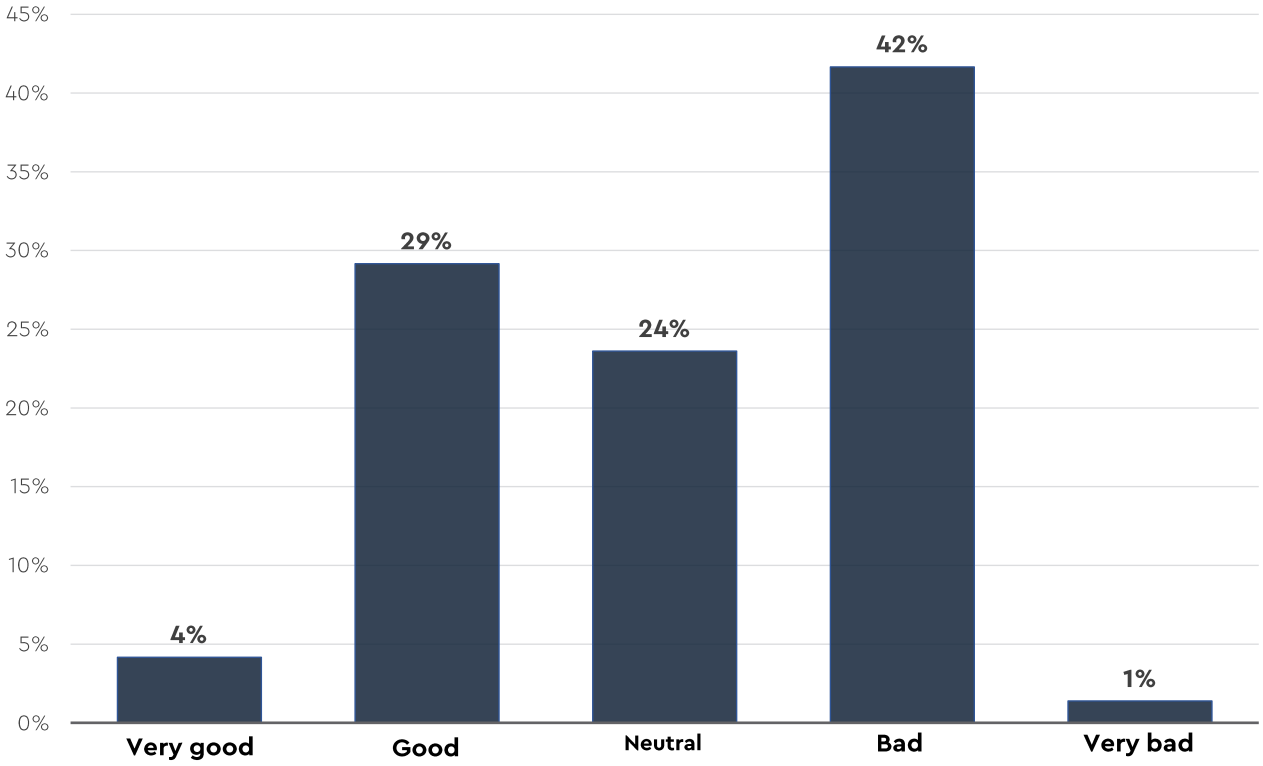
Digram (4-21) : What's yor evaluation of efficiency of secretariat in organizing appointment booking and dealing with visitors?



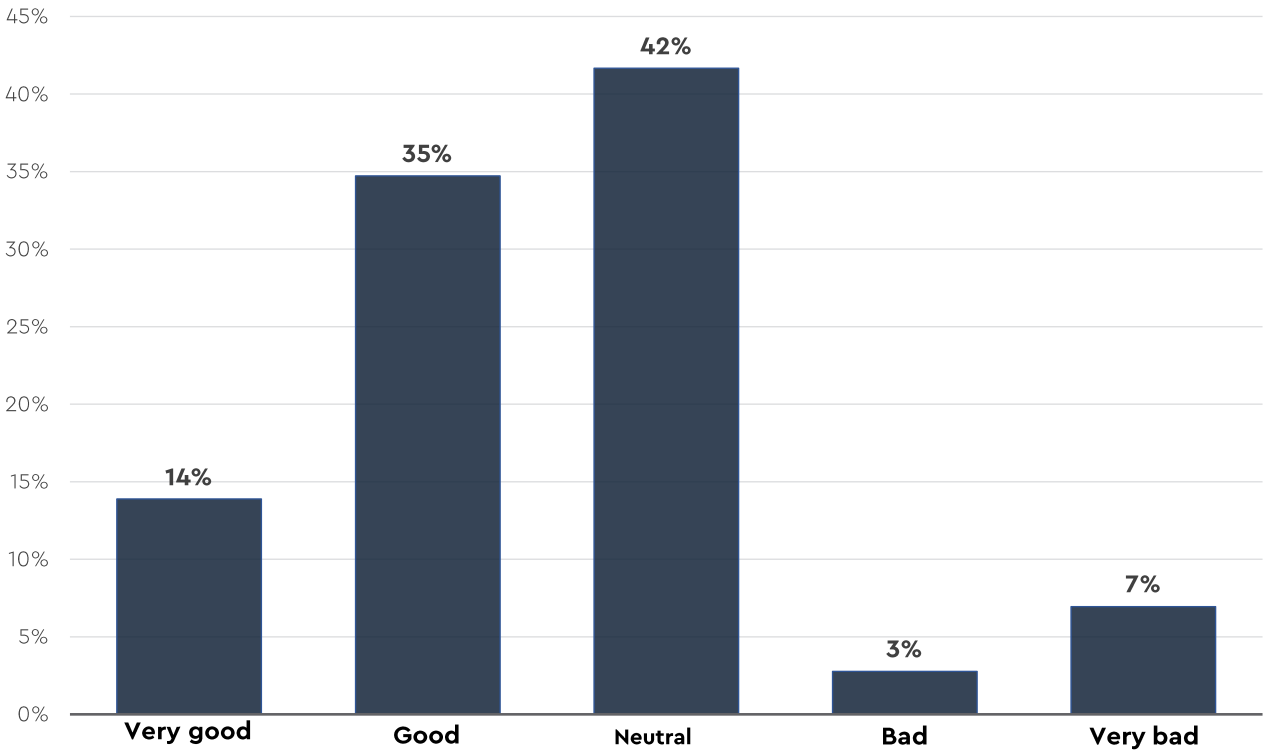
Digram (4-22) : What's yor evaluation of efficiency of pharmacists in preparing the required medicine?



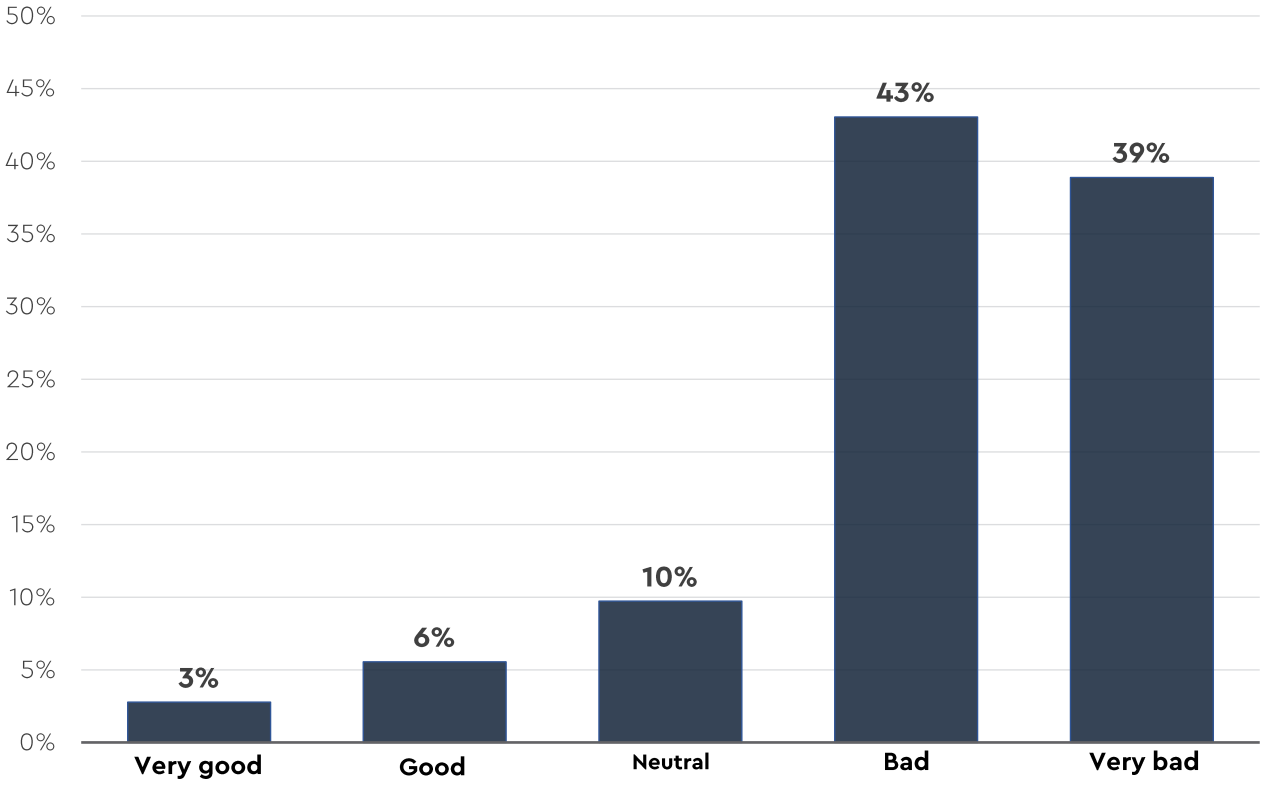
Digram (4-23) : What's your evaluation of patient's adherence to prescribed medication?



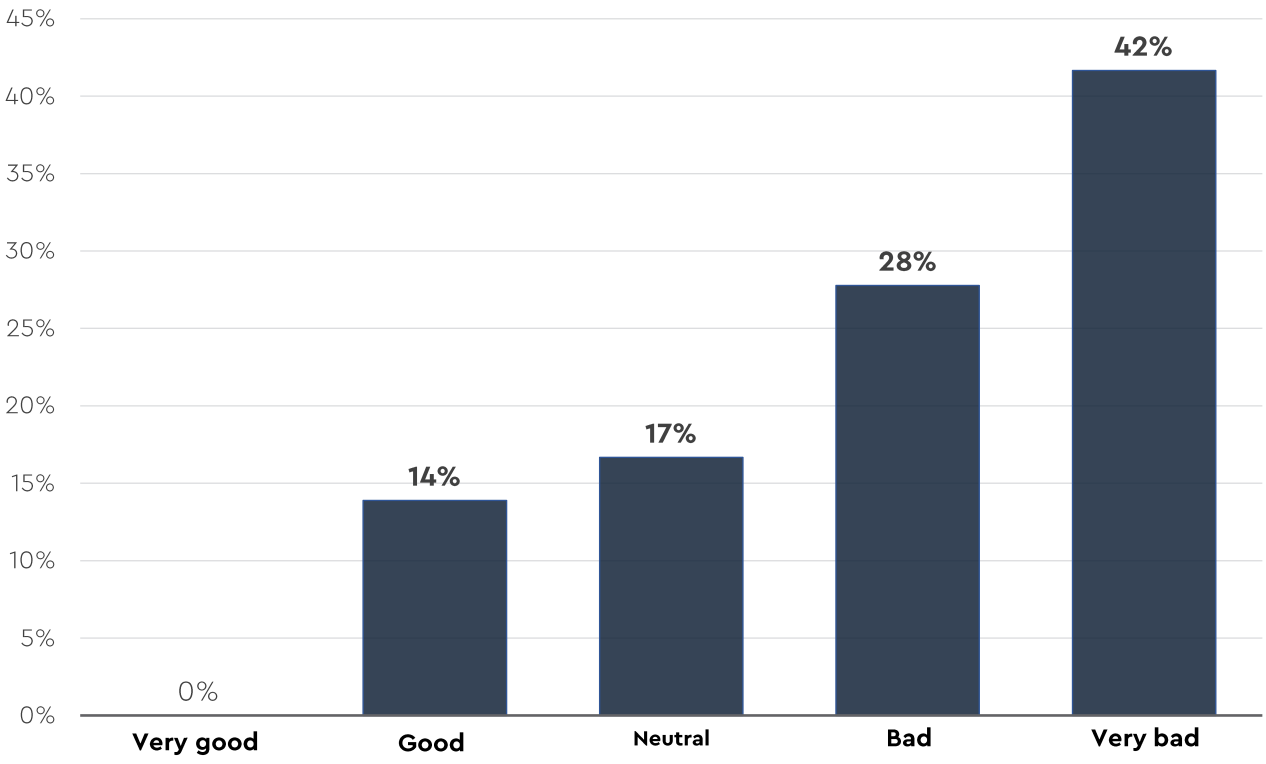
Digram (4-24) : What's yor evaluation of your knowledge of medicines available in pharmacies?



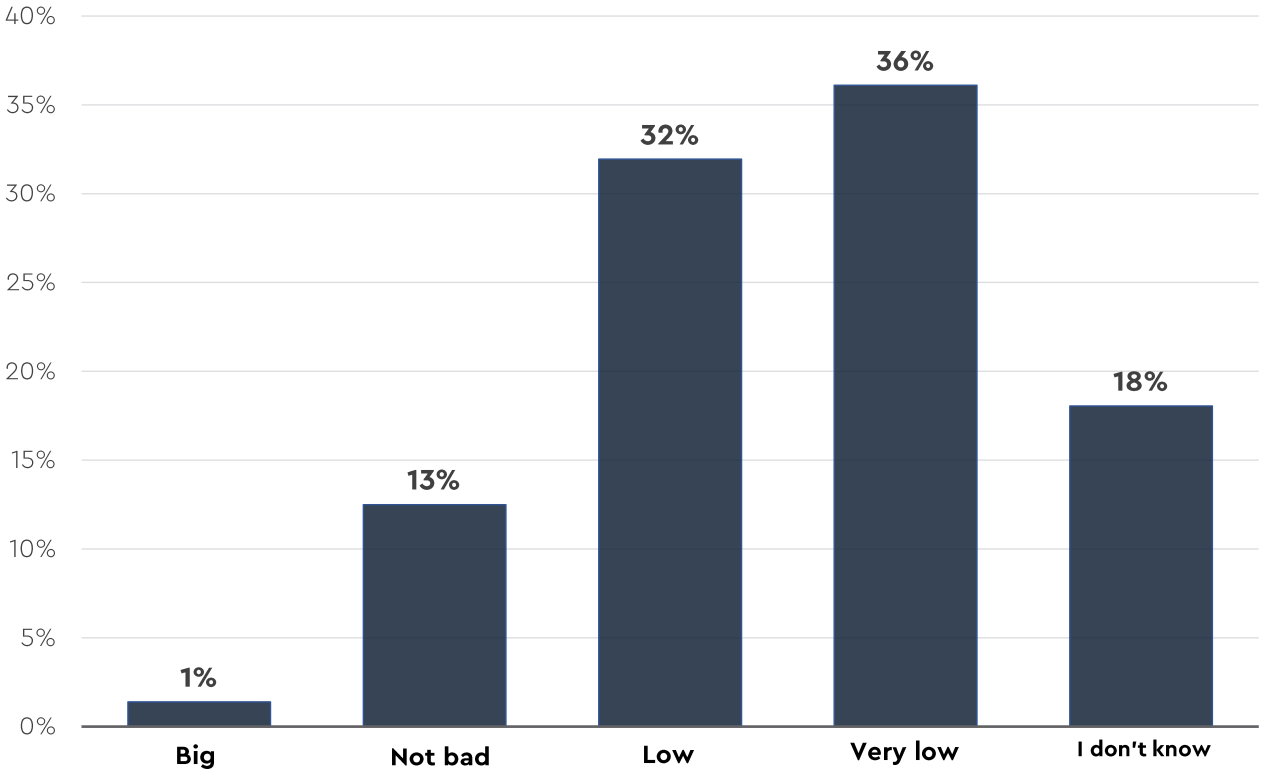
Digram (4-25) : What's yor evaluation of security protection for doctors?



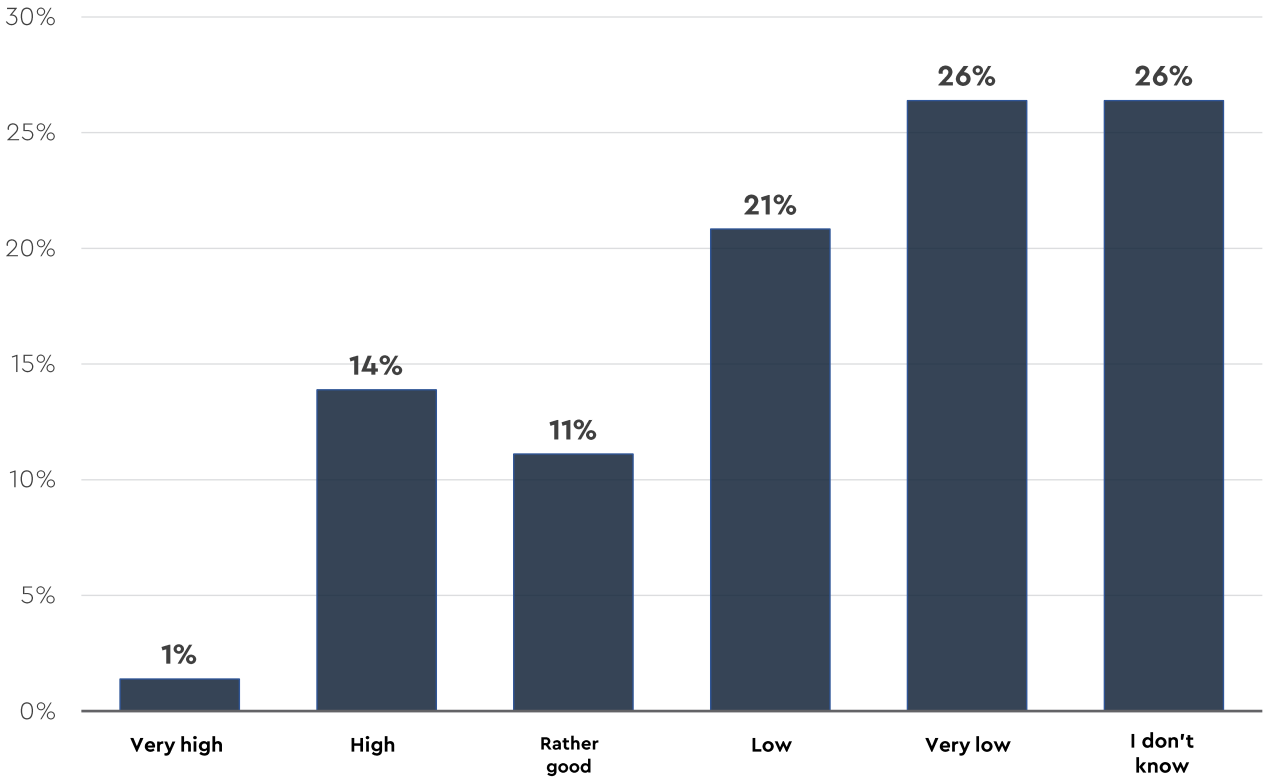
Digram (4-26) : What's yor evaluation of the legal protection for doctors?



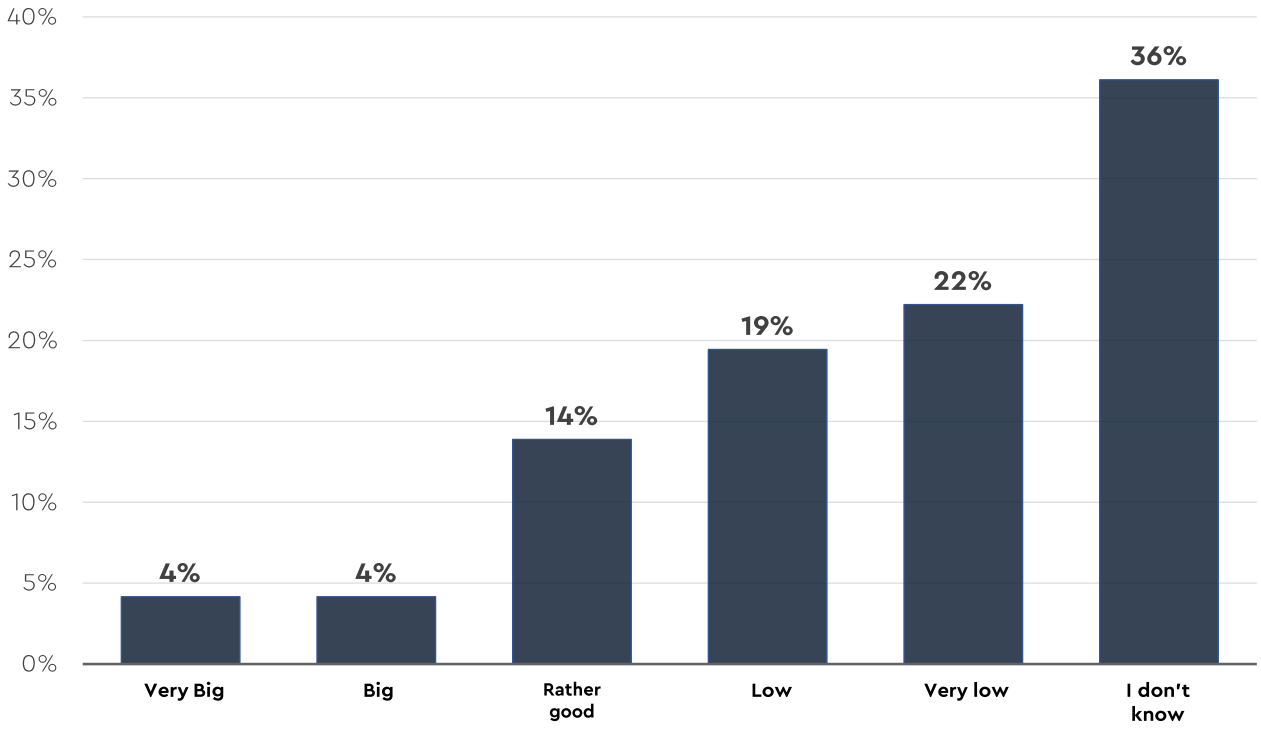
Digram (4-27) : What's yor evaluation of the available funding to buy modren medical devices?



Digram (4-28) : What's yor evaluation of the costs of training on how to use modren medical deviecs?



Digram (4-29) : What's yor evaluation of the available funding for building modren private hospitals?



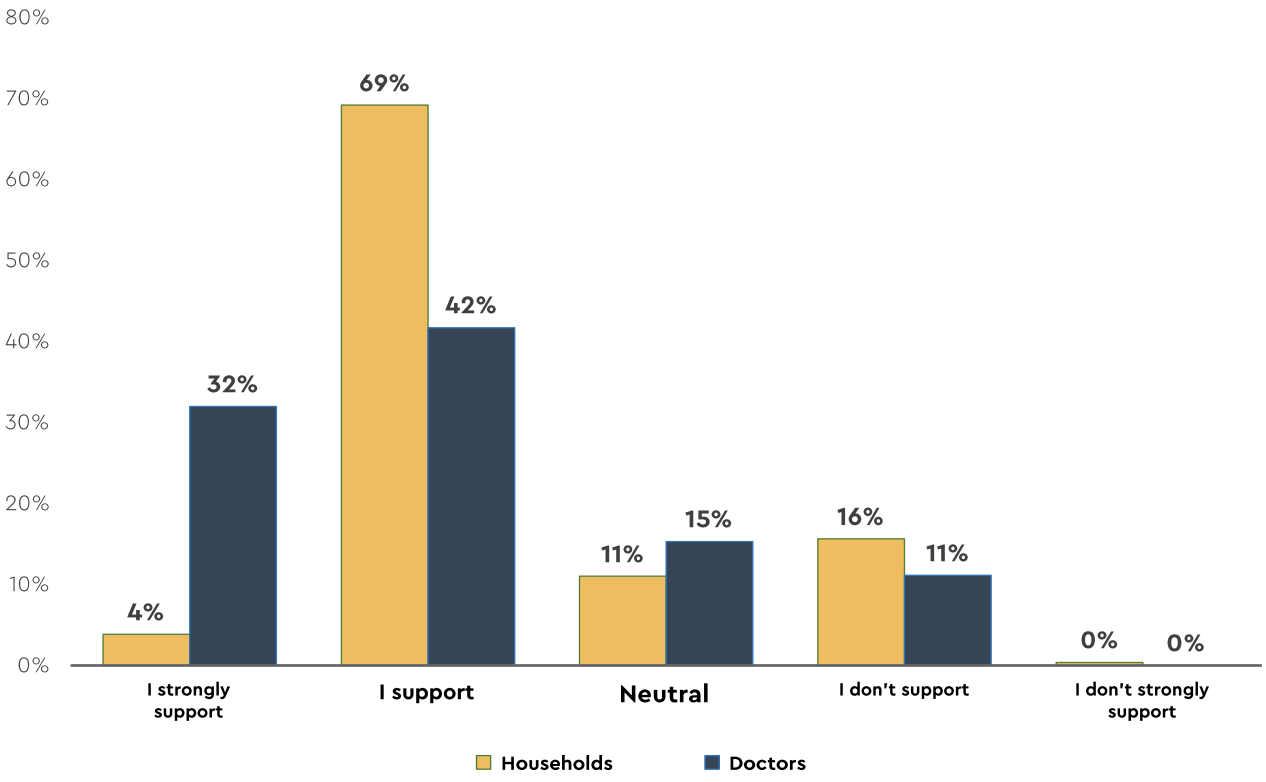
Fifth: Development proposals

A number of suggested solutions were introduced to solve problems facing providing health services by the private sector.

Some of these solutions were proposed to households and doctors, and other solutions were proposed only to households, and others were proposed only to doctors. Results of the survey show the following:

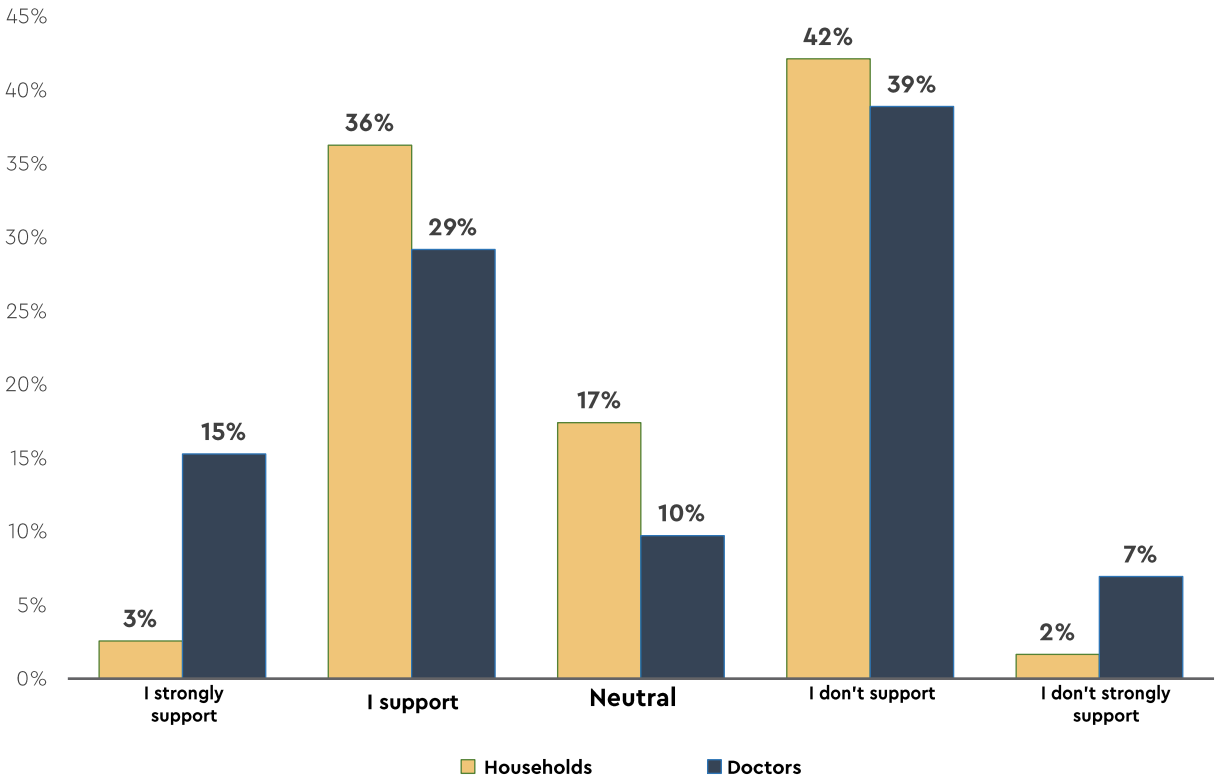
1- There is wide support by households and doctors for the idea of establishing initial consultation centers for treating simple medical conditions or determining the specialty suitable for treating a medical condition in exchange of moderate fees, as it is shown in diagram (5-1).

Digram (5-1) : Do you support the idea of visiting an initial consultation center for treating simple conditions or determining the appropriate specialty to treat health conditions for moderate fees?



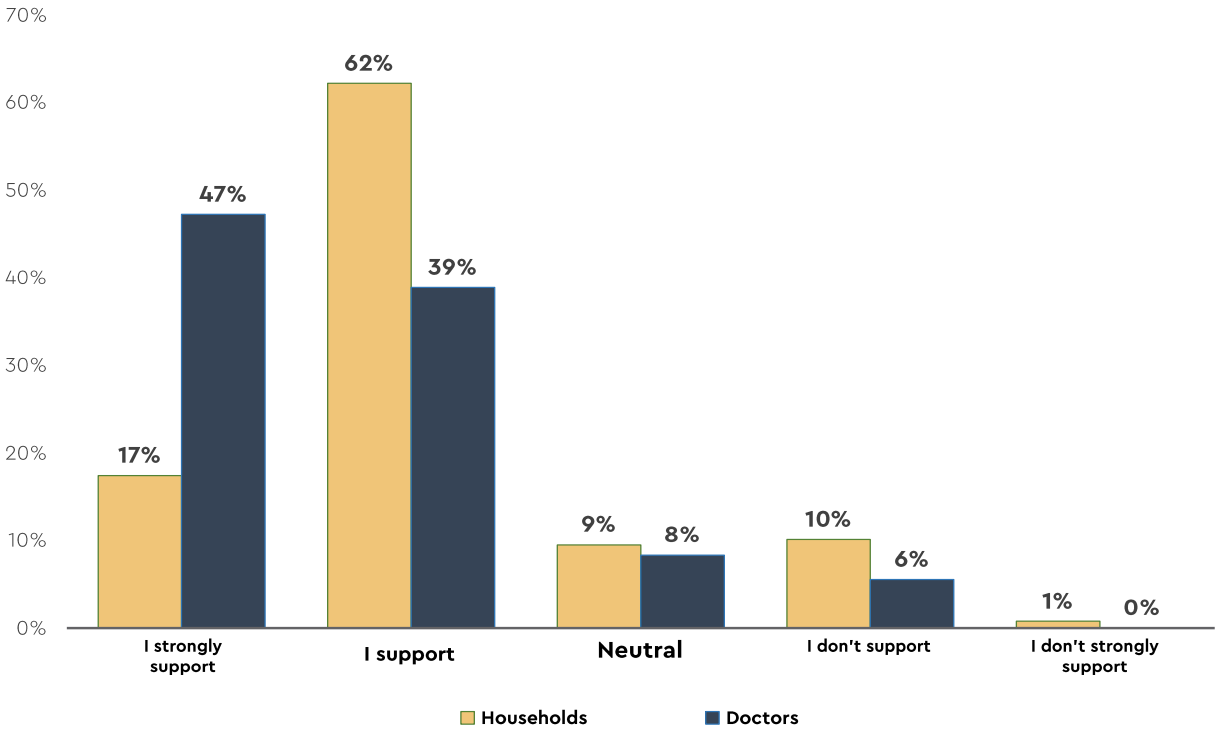
2- 40% of households and doctors support providing consulting services (paid) online for treating simple medical conditions or determining the specialty suitable for the medical condition, as it is shown in diagram (5-2).

Digram (5-2) : Do you support the idea of providing (paid) online cosultation service for treating simple conditions or determining the appropriate specially for treating medical conditions?



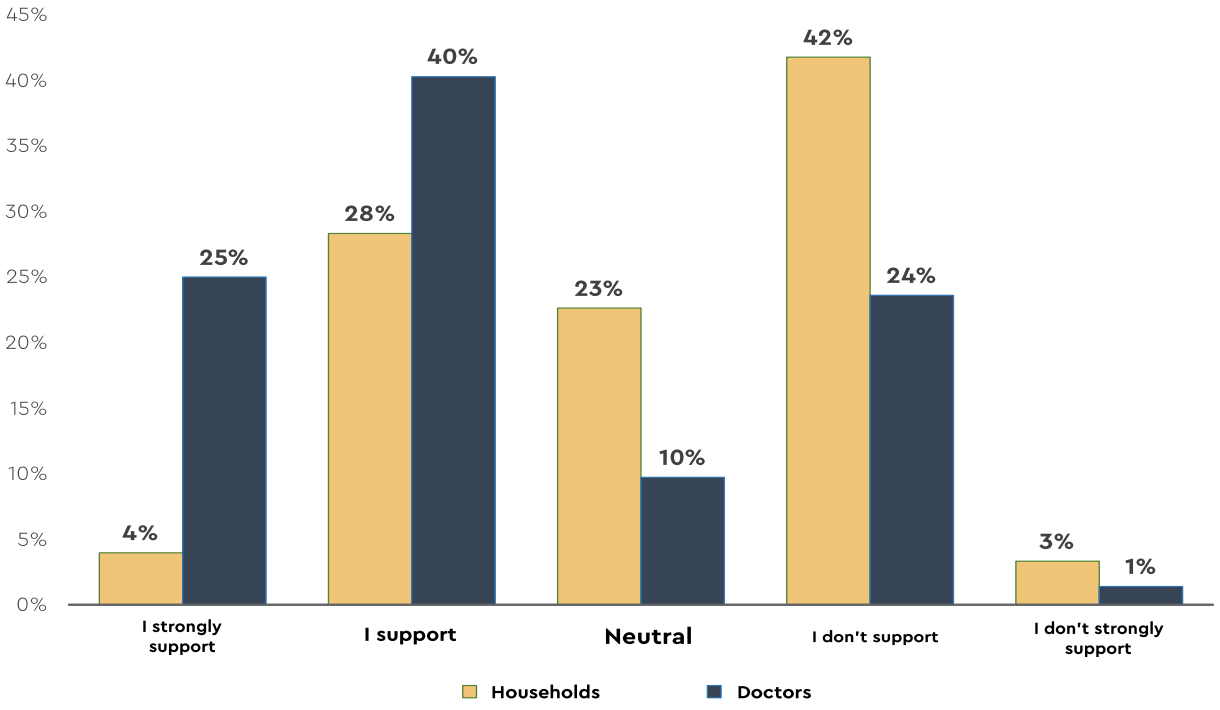
4- There is wide support by households and doctors for the idea of making electronic directory of doctors in the city showing their specialties and CVs, booking time, and services they provide.

Digram (5-3) : Do you support the idea of making electronic directory of doctors in the city showing their specialties, CVs, booking time and services thay provied



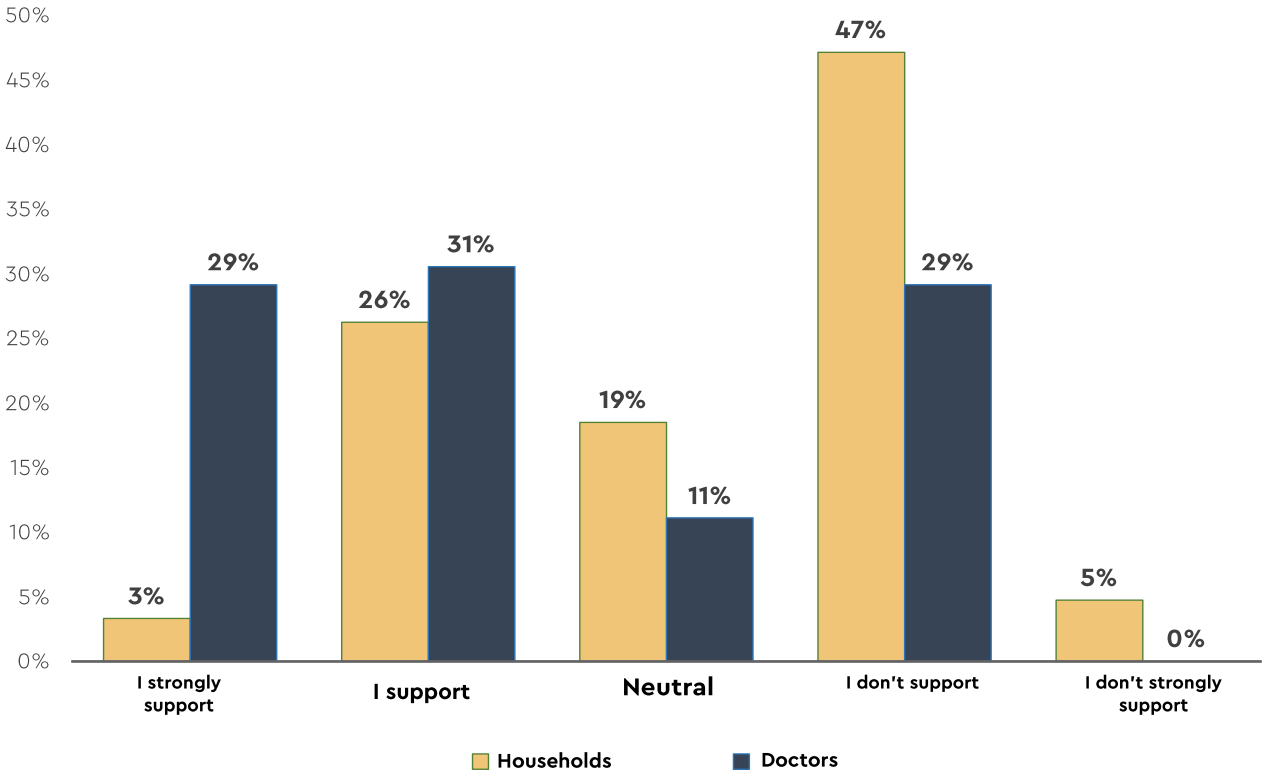
5- 65% of doctors support the idea of online booking for having a medical service and paying part of fees online, with their willingness to pay for a subscription to the site or application through which booking is made, and 32% of households support this idea.

Digram (5-4) : Do you support the idea of online booking for having a medical service and paying part of fees online? (in exchange of paying for a subscription in the site or app)



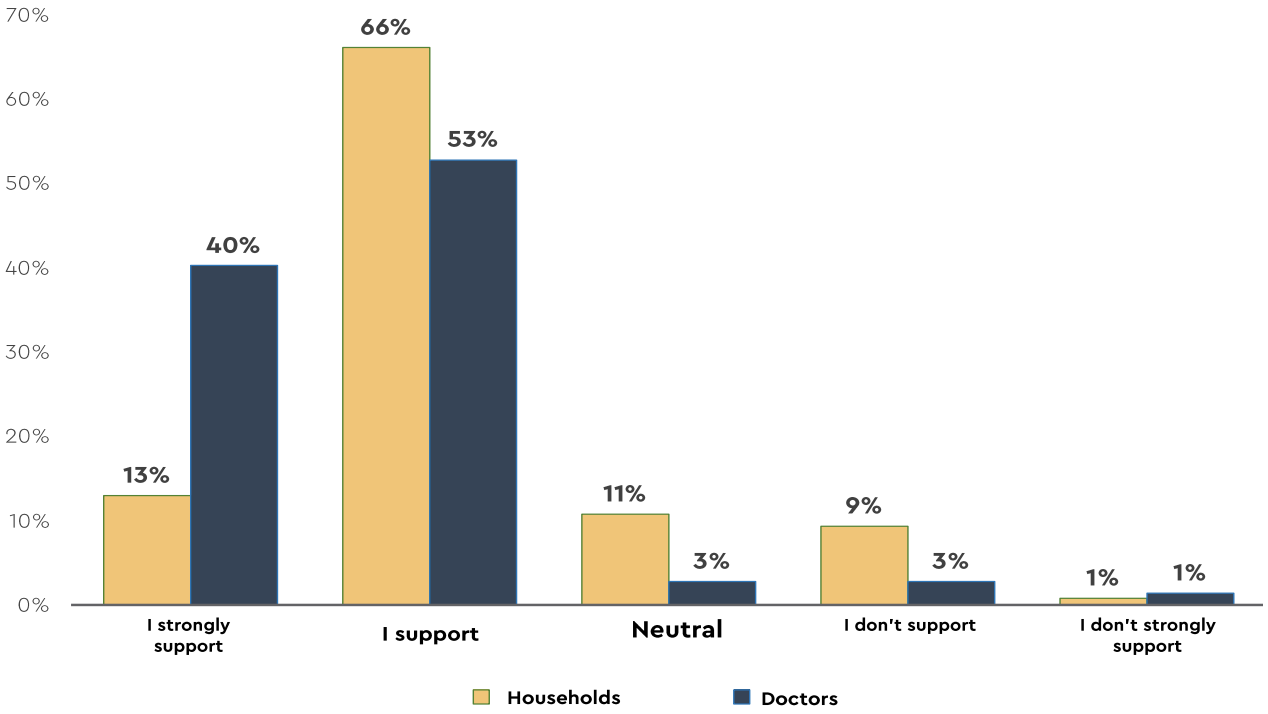
6- 60% of doctors support quick online doctor appointment booking to have a medical service for a higher fee with paying part of the fee online, and their willingness to pay for a subscription to the site or application through which booking is made, and 29% of households support this idea.

Digram (5-5) : Do you support the idea Of quick online doctor appointment booking to have a medical service for a higher fee with paying part of the fee online? (in exchange of paying for a subscription in the site or app)



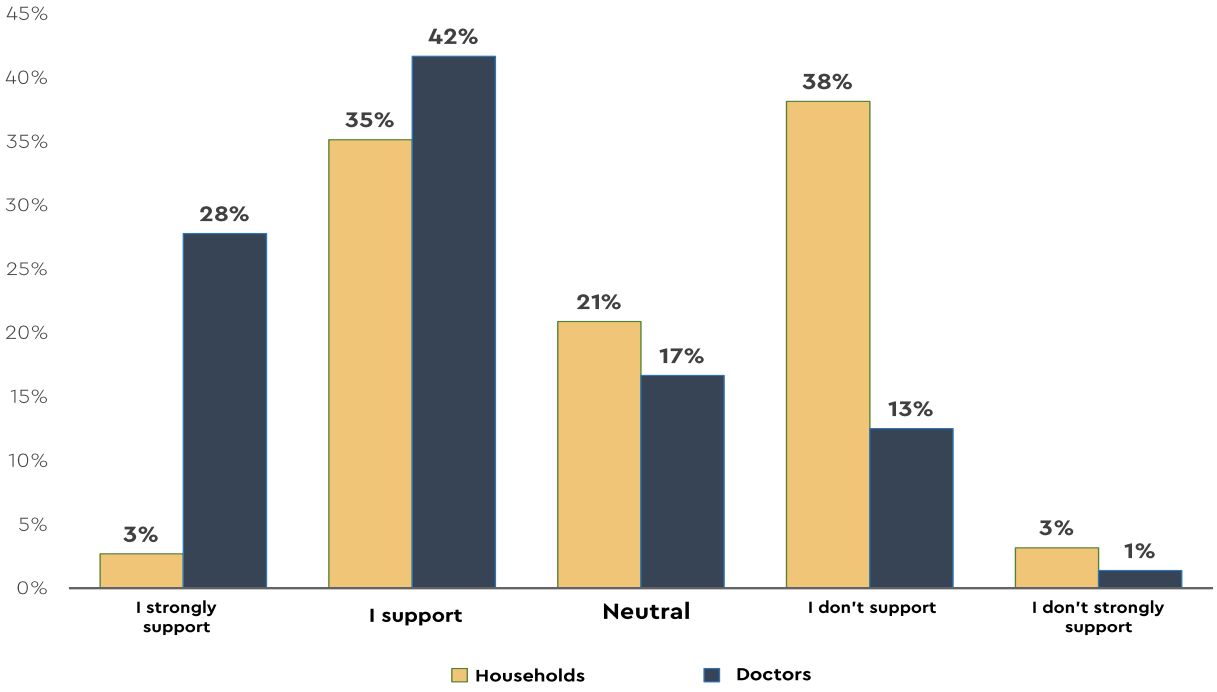
7- Wide support by doctors and households for having a directory of hospitals which provide health services not available in the city.

Digram (5-6) : Do you support the need or making a directory hospitals which provide health services not available in the city?



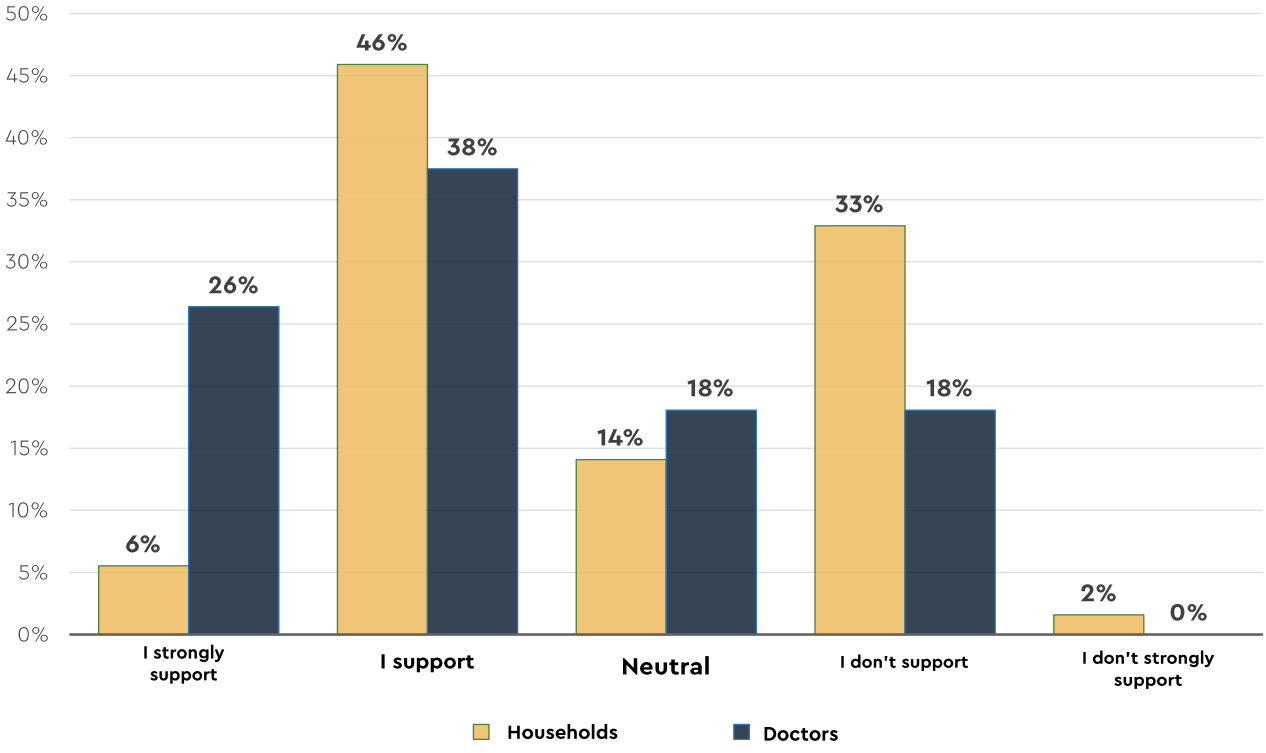
8- 70% of doctors support the idea of online booking in private hospitals which provide medical services outside of the city with paying part of the fee online through a subscription paid by the private hospital to the site or application through which booking is made, and 38% of households support this idea.

Digram (5-7) : Do you support the idea of online booking in private hospitals which provide medical services outside Of the City with paying part of the fee online? (in exchange Of paying for a subscription in the site or app)



9- 64%of doctors support the idea of online appointment booking in private hospitals, which provide health services overseas, in exchange of paying part of the fees online through a subscription paid by the hospital to the site or application through which booking is made, and 52% of households support this idea.

Digram (5-8) : Do you support the idea of online appointment booking in private hospitals which provide health services overseaswith paying part of the fee online?(in exchaneg of paying for a subscription in the site or app)



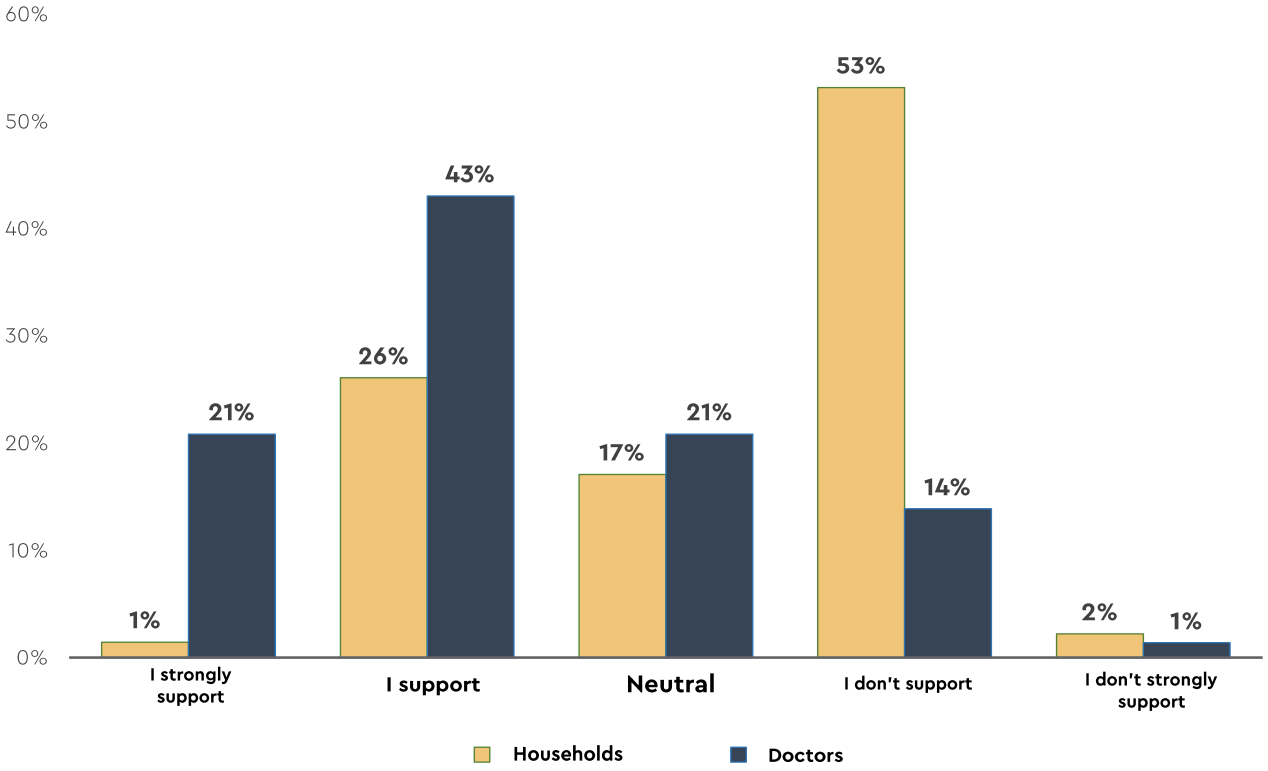
10- 64% of doctors support health insurance provided by the private sector, while 27% of households support this idea in case of not having governmental support and 43% of households support the idea in case of having governmental support.

11- There is support for insurance provided by civil hospitals or private medical complexes compared to insurance provided by companies.

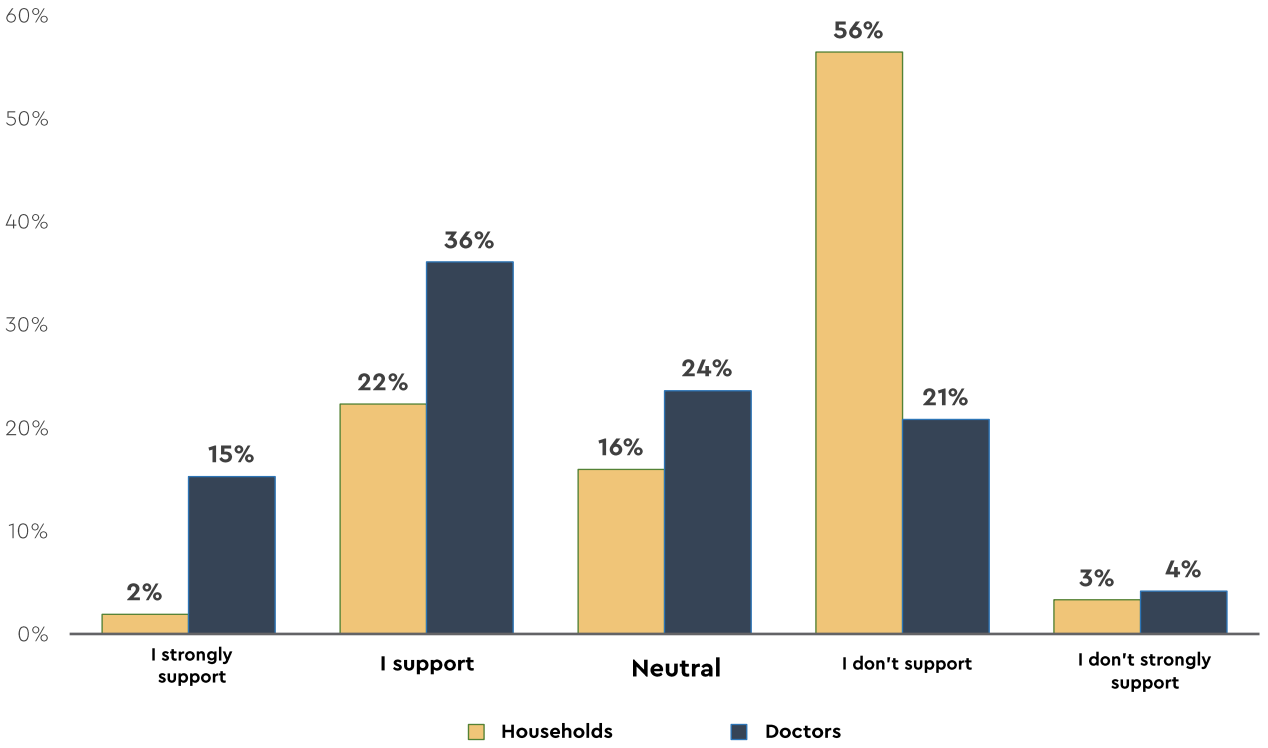
12- There is preference to make insurance fee annual rather than monthly.

These ideas are shown in diagrams (5-9) to (5-16).

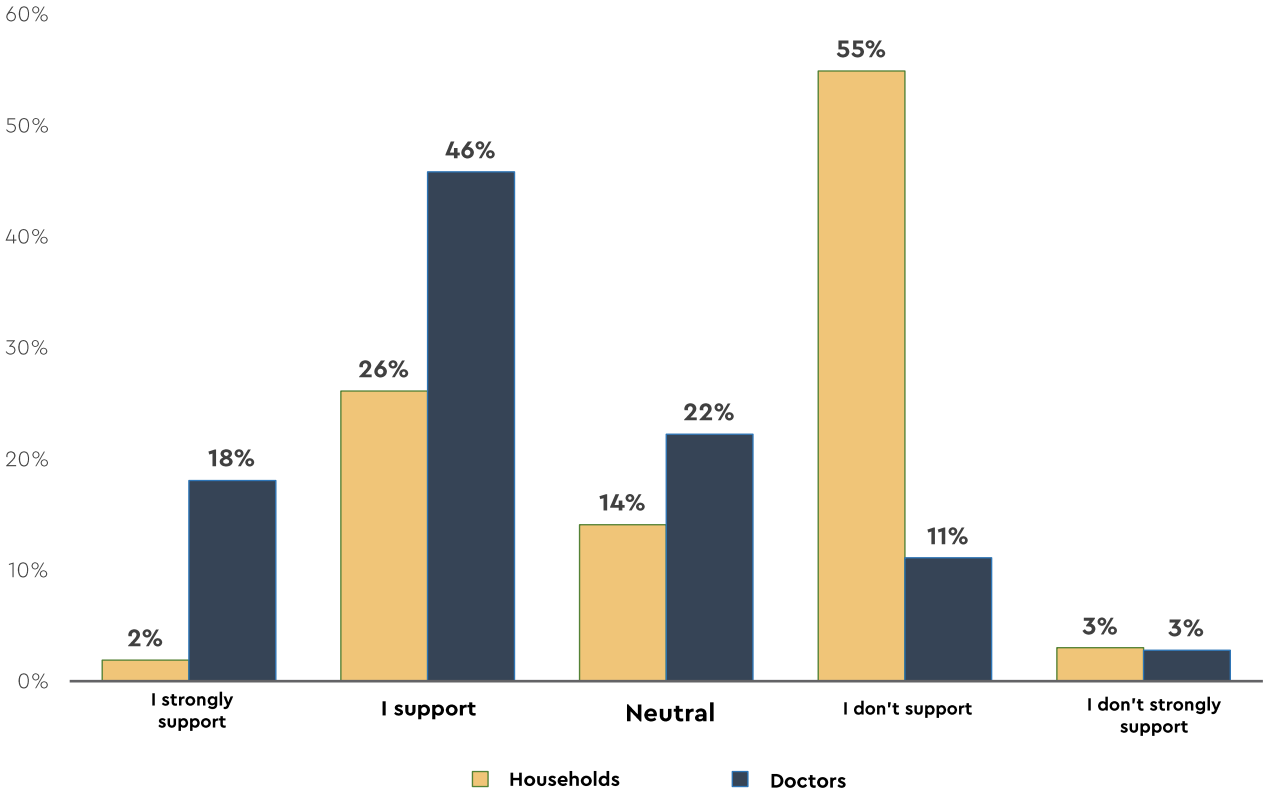
Digram (5-9) : Do you support the idea of providing health insurance by medical complexes, in which health services are free in exchange Of annual premium?



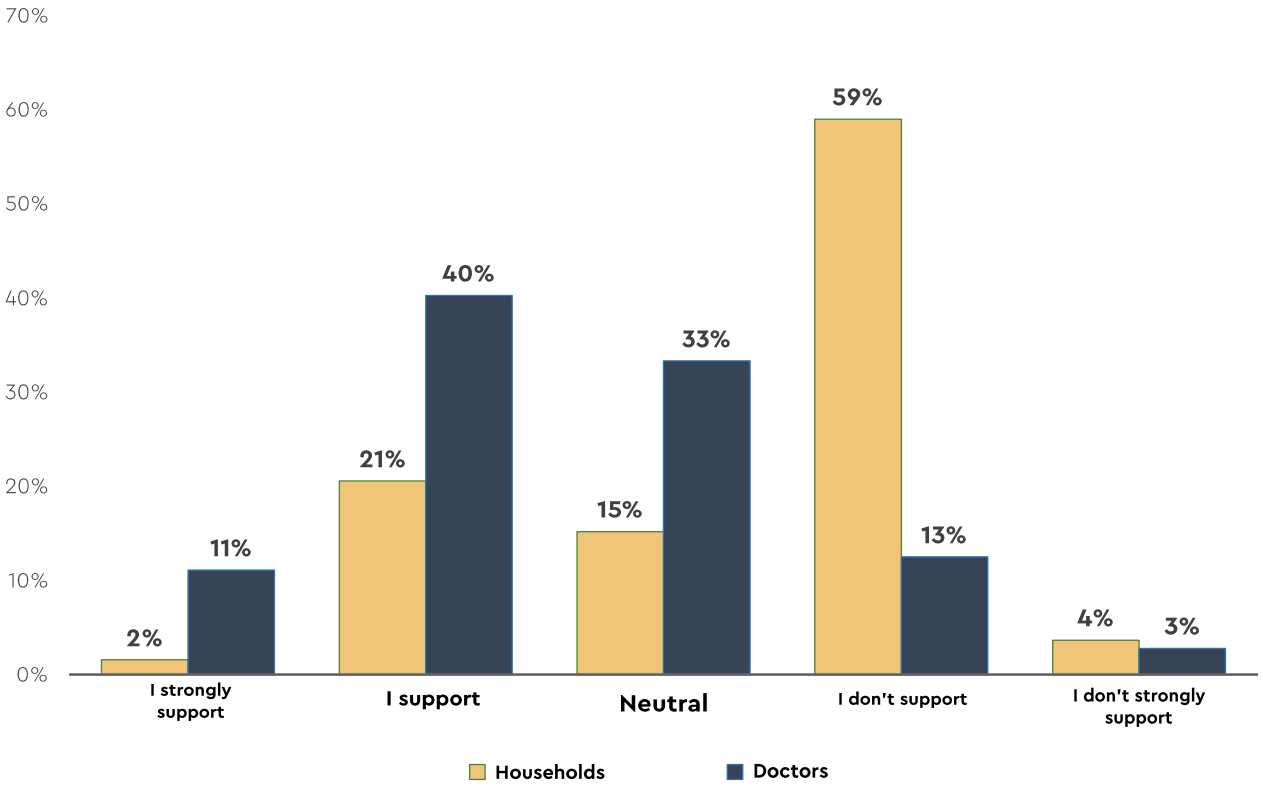
Digram (5-10) : Do you support the idea of providing health insuranceby medical complexes for free health services in exchange of a monthly installment deducted from the salary of the beneficiary or the sponsorin case that the beneficiary doesn't pay?



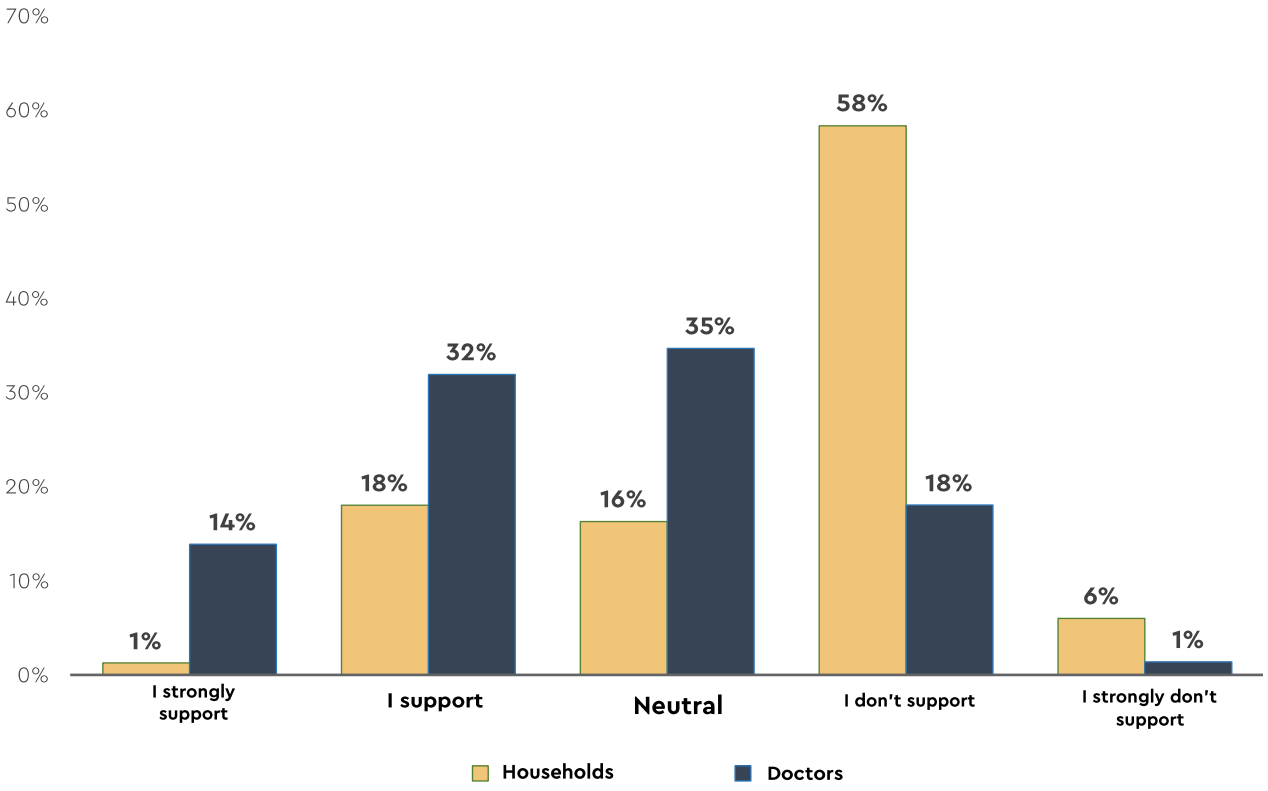
Digram (5-11) : Do you support the idea of providing health insurance by private hospitals, in which health services are free in exchange of an annual premium?



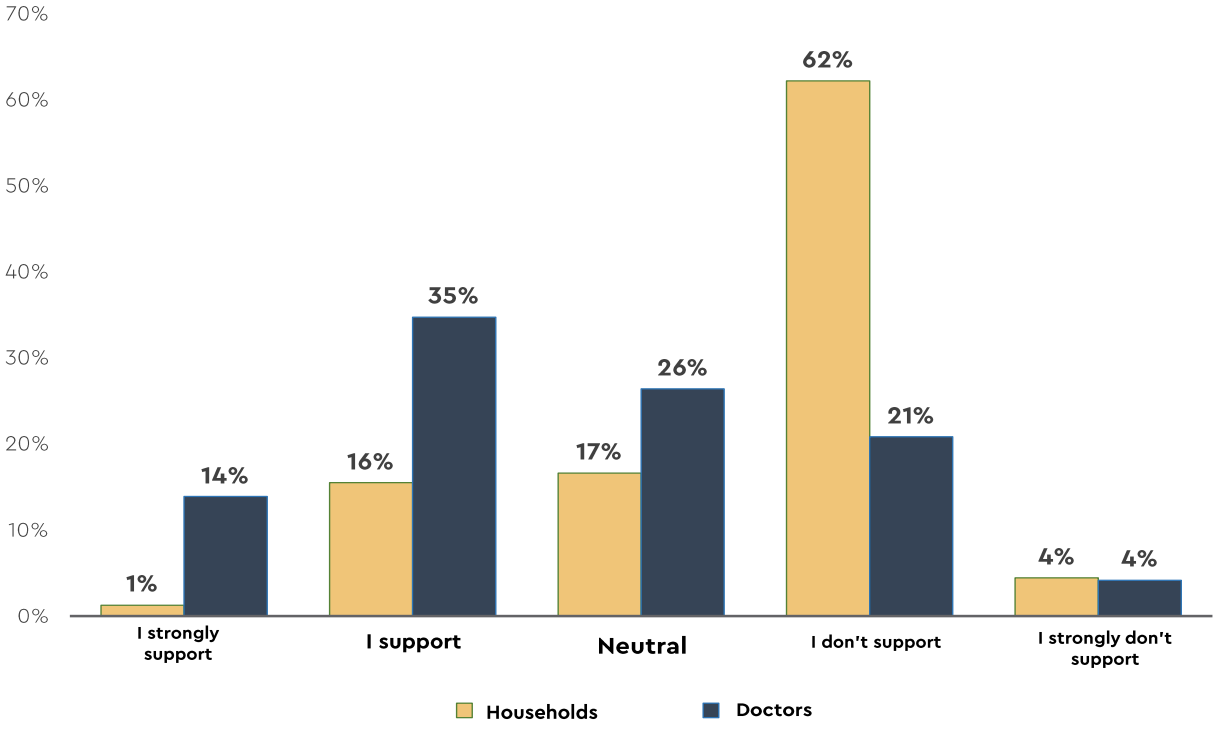
Digram (5-12) : Do you support the idea of providing health insurance by private hospitals, in which health services are free in exchange Of a monthly installment deducted from the salary Of the beneficiary or the sponsor in case that the beneficiary doesn't pay!



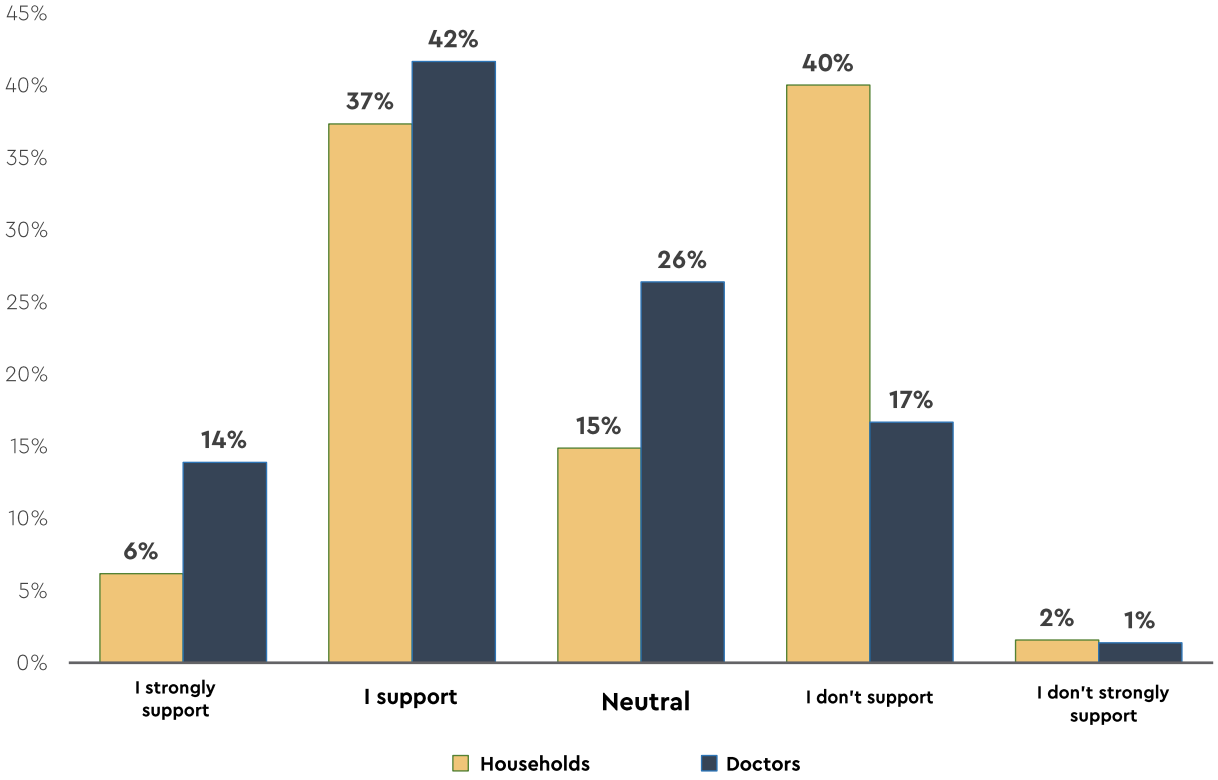
Digram (5-13) : DO you support the idea Of providing an insurance by a commercial company Which provides health services inside the country as a whole in exchange of an annual premium?



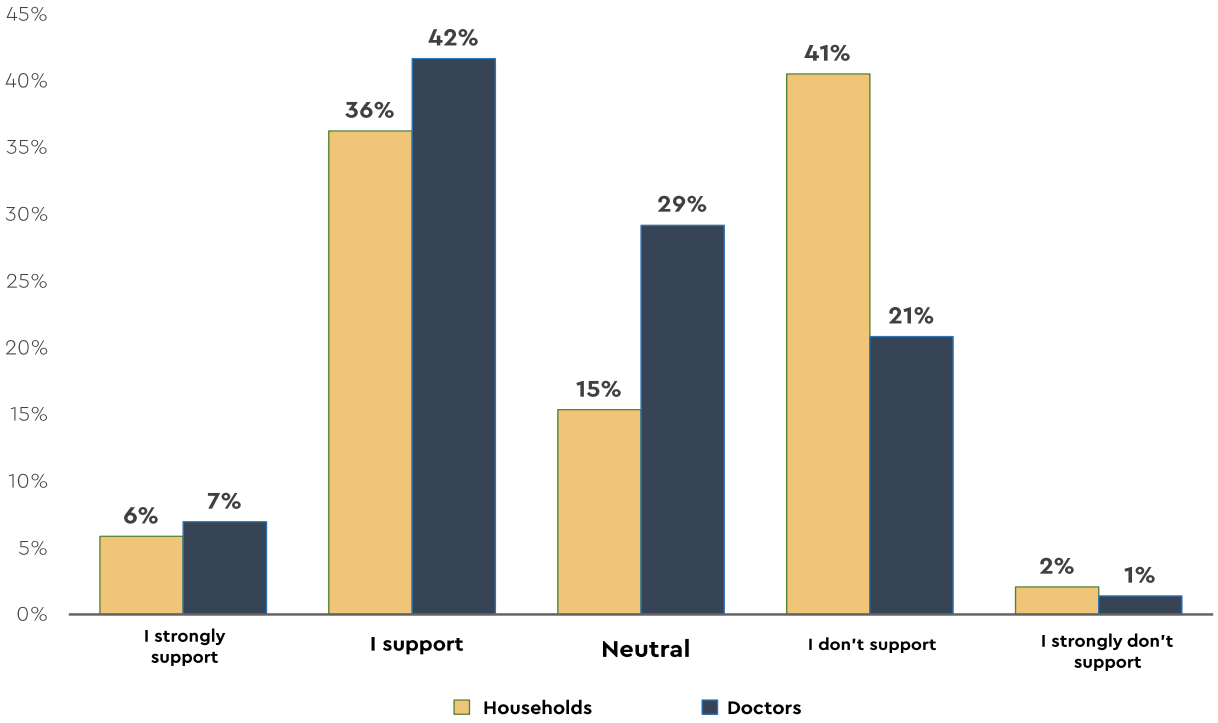
Digram (5-14) : DO you support the idea Of providing a commercial insuranæ by a health insuranæ company for providing health services inside the in general. in exchange of a monthly installment deducted from the salary of the beneficiary or the sponsor, in case that the beneficiary doesn't pay?



Digram (5-15) : o you support the idea providing a commercial insurance partially supported by the government) by a health insurance company for providing health services inside the country in general, in exchange of an annual premium?

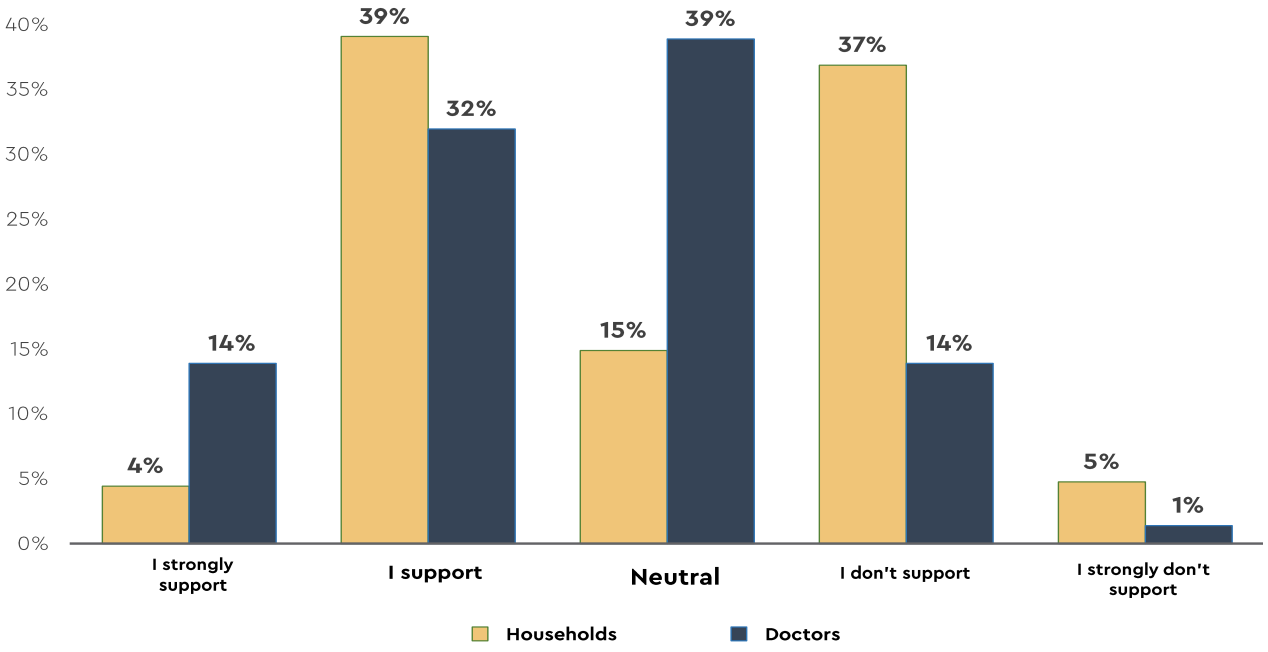


Digram (5-16) : Do you the idea of providing an insurance (partially supported by the government) by health insurance company for providing health services inside the country in general, in exchange of a monthly installment deducted from the salary of the beneficiary or the sponsor in case that the beneficiary ?



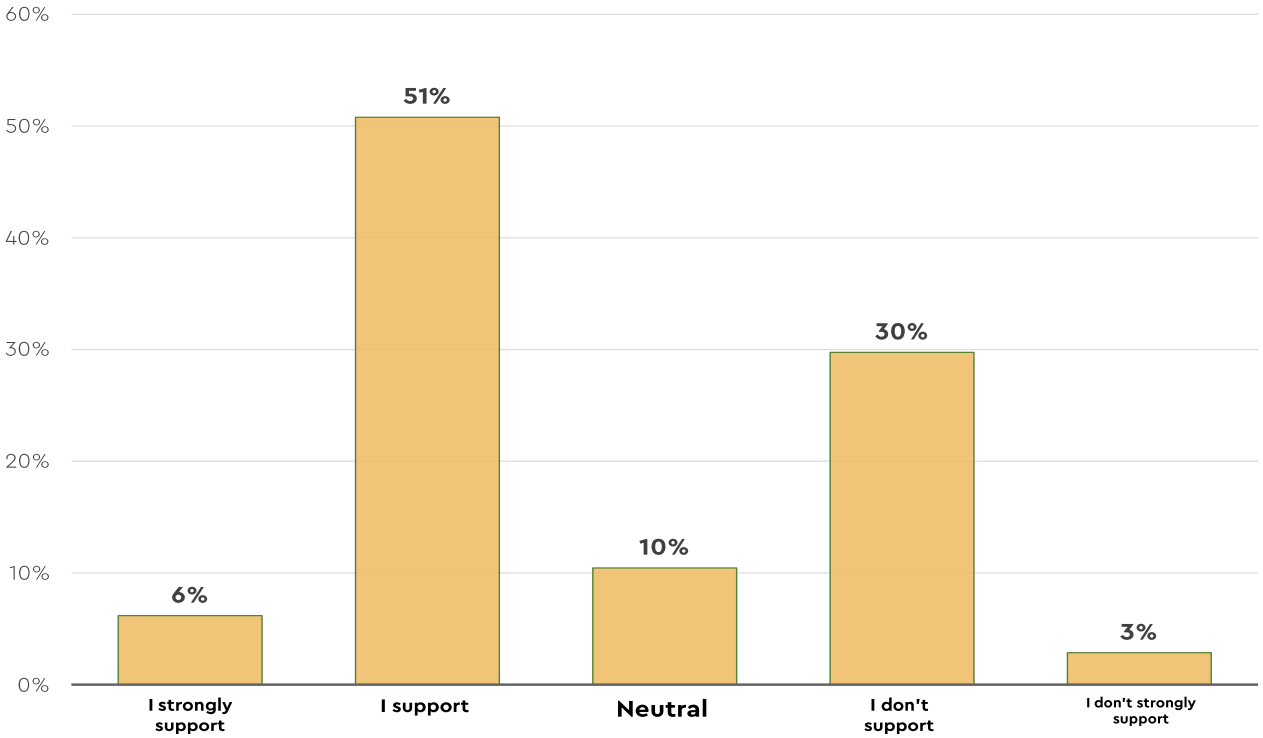
13- 64% of doctors and 43% of households support the idea of providing prompt ambulance service for fees, as it is shown in diagram (5-17).

Digram (5-17) : Do you support the idea of providing prompt ambulance service in exchange of fees?



14- 57% of households support the idea of providing home health services for fees higher than those paid for services at clinics or hospitals, as it is shown in diagram (5-18).

Digram (5-18) : DO you support the idea Of providing home health services in exchange of fees higher than those services provided in clinics or hospitals?



15- There is wide support by doctors for providing the following services:

a- Providing a company for employing trained secretariat to be followed up and paid by the company.

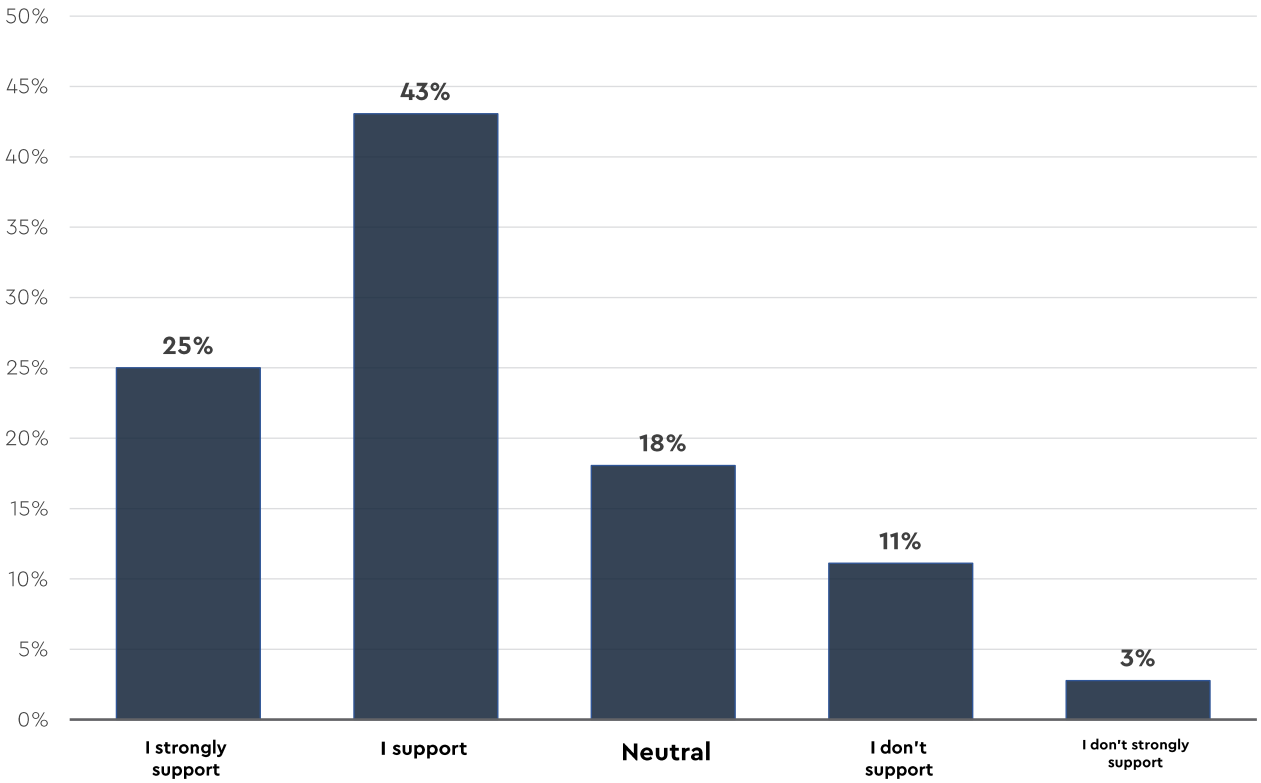
b- A company for providing personal protection for doctors and defending them legally.

c- Having an online directory of drugs, their origins and prices at pharmacies.

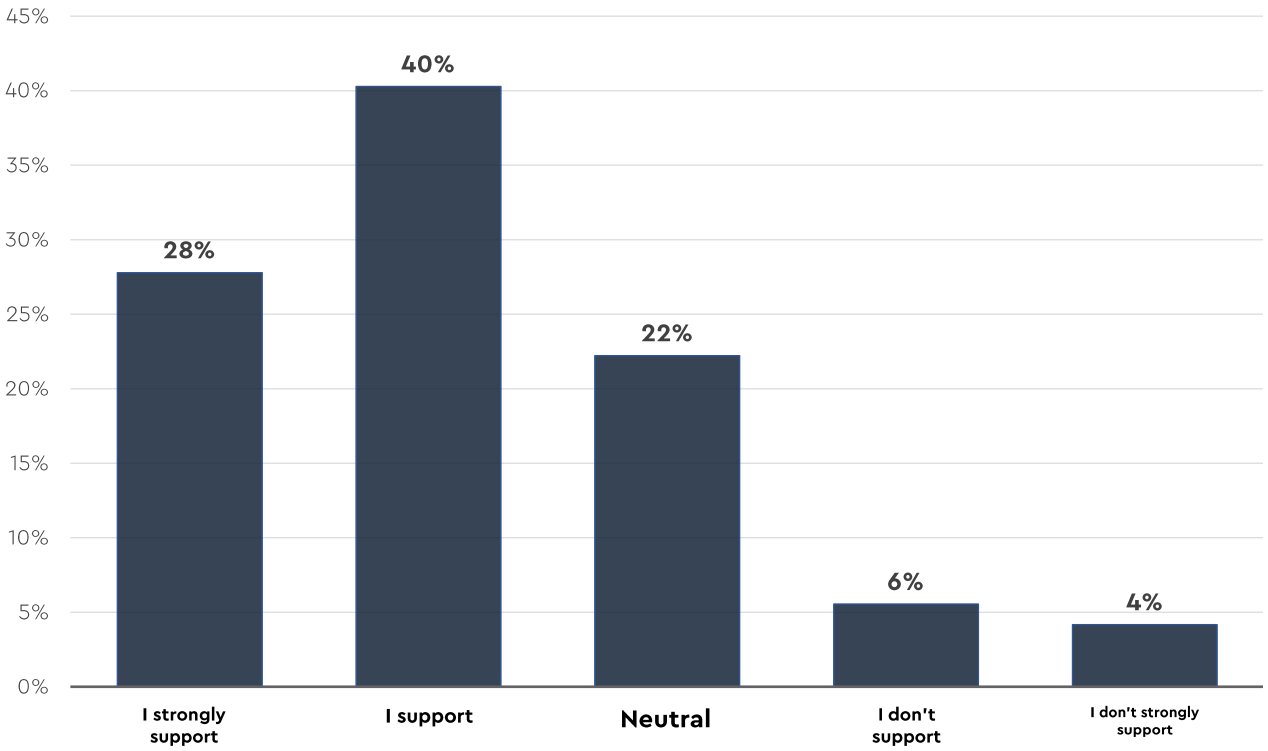
d- Having database of visitors of all doctors in the city, so that any doctor can know the medical history of a patient through a code of the visitor.

These ideas are shown in diagrams from (5-19) to (5-22).

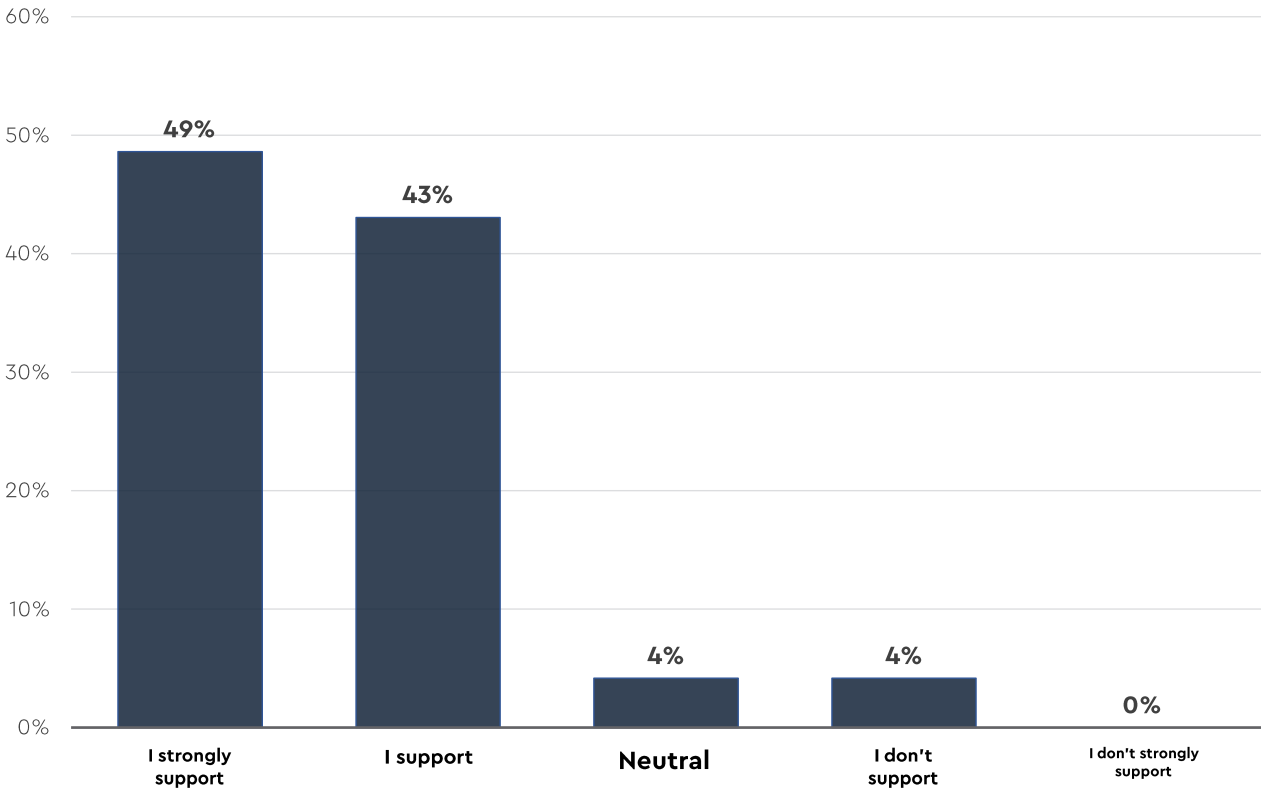
Digram (5-19) : Do you support the idea of providing a company for employing trained secretariat whose work is monitored by the company, which pays for the secretary?



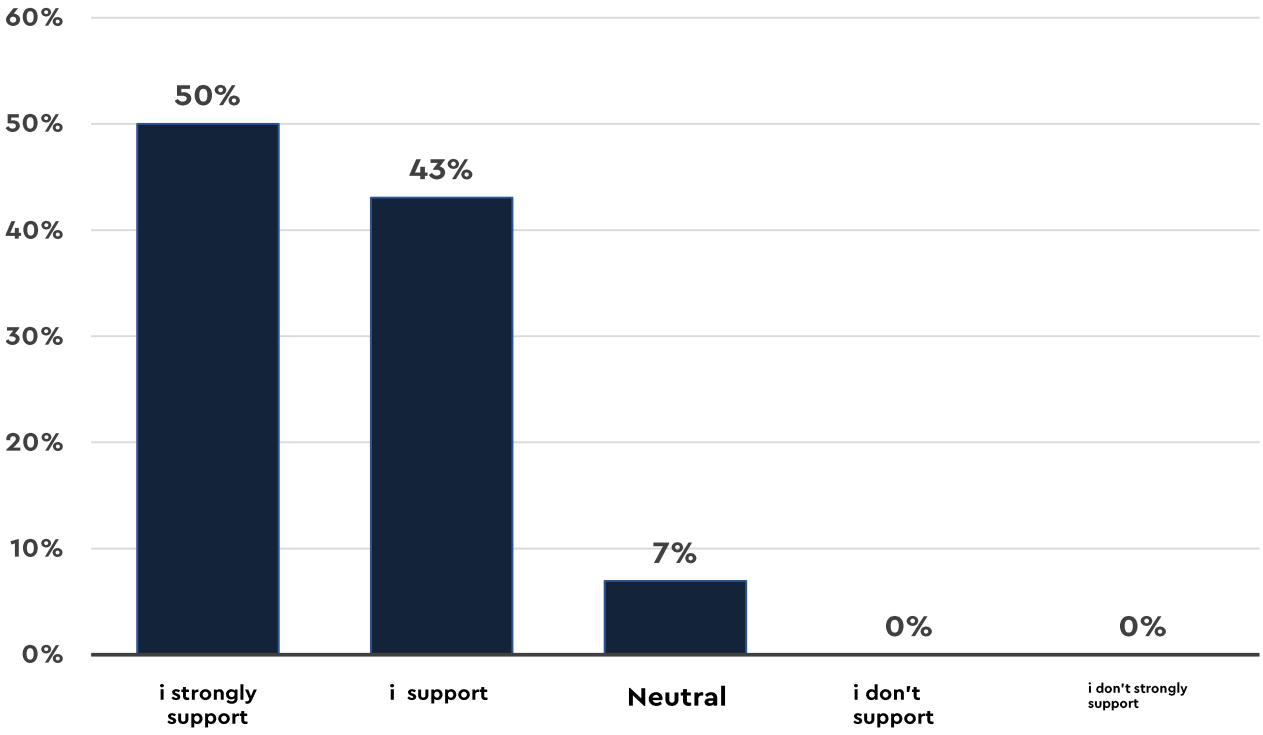
Digram (5-20) : Do you support the idea of having a company for providing personal and legal protection for doctors?



Digram (5-21) : Do you support the idea of making an online directory of medicines, their origins and prices , in pharmacies?



Digram (5-22) : Do you support the idea of making database for visitors of doctors in the city by which any doctor can know the health history of a patient through the patient's code?



Abstract:

The most important points reached by this study are the following:

1- From the point of view of most of doctors and households, services provided by governmental hospitals are bad or very bad, while services provided by governmental health centers are relatively better.

2- Medical services in civil health institutions are better than those in governmental health institutions, especially in civil hospitals with some regulatory problems, especially in civil clinics and medical complexes.

3- High fees for medical examination and high drug prices, so that some patients have to borrow money or minimize basic needs or sell some of their properties to pay for medical care and others do not visit doctors because they can't afford general costs of this visit.

4- There is a need for improving health services and establishing some institutions like consulting centers for initial medical examination and home medical services and providing trained secretariat and security and legal protection for doctors.

5- There are people who support providing health insurance, especially by civil hospitals and it is better to be supported by the government and paying insurance fees annually.

Recommendations:

After results this study reached, the following recommendations can be introduced:

1- Activating the system of health insurance provided by civil hospitals and it is better to be supported by the government, provided that the annual fee for the basic insurance would not be more than 600 thousand Dinars for each household in exchange of providing free preventive and treatment services that make the household avoid being under poverty line because of paying high costs of medical examination and medicines.

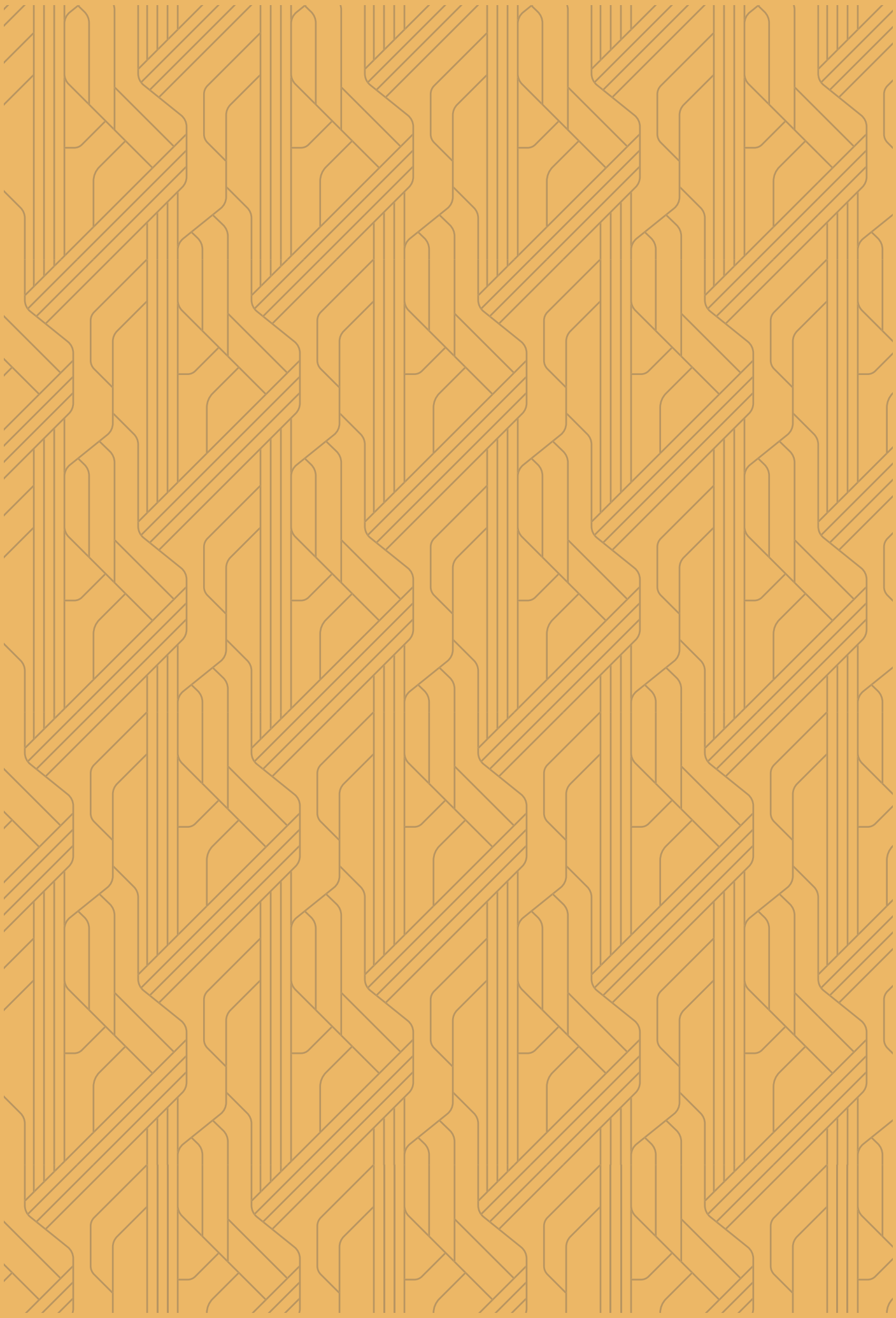
2- Encouraging investment in building civil hospitals, which provide health insurance. Funding mechanism can be adopted under the title of investment insurance, through which individuals who pay high insurance fees can obtain shares in the institutions that provide insurance every 5 years, equal to the amount of the difference in the total insurance premiums they paid, and the value of the medical services they obtained during the five years.

3- Having paid online application to arrange the process of booking appointments in civil health institutions and managing them.

4- Establishing a company for training a secretariat to work for civil health institutions and following them up.

5- Establishing a company for providing security and legal services for doctors.

6- Having an online application to show the medicines available in pharmacies and their prices.



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