American University of Armenia
Center for Health Services Research
GARO MEGHRIGIAN EYE INSTITUTE

Report

SURVEY OF THE REGIONAL OPHTHALMOLOGICAL SERVICES IN ARMENIA

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Prepared by:

Naira Khachatryan, MD, MPH
Center for Health Services Research
American University of Armenia

Table of Content

Executive Summary

Background

The people of Armenia are the fortunate recipients of assistance from a benefactor, Mr. Garo Meghrigian. Mr. Meghrigian donated a generous sum of money for the implementation of the Garo Meghrigian Blindness Prevention Program throughout Armenia.

Before the commencement of this survey, key informant interviews with several top ophthalmologists of Armenia were conducted in order to gain valuable insight into the future structure of the Garo Meghrigian Blindness Prevention Program.

According to key-informant interviews one of the main goals of ophthalmology in Armenia is to bring ophthalmologic services to isolated regions to ensure full coverage. Most of the villages within each of the ten regions are short of not only specialized ophthalmologic services but also lack basic primary care services as well.

Taking into account all of the above, a survey of regional ophthalmologic services was conducted.

Methods

Thirty-three in-depth interviews with regional ophthalmologists in ten provinces of Armenia were conducted. Data were analyzed using "ATLAS ti" software.

Results

- No precise statistical data concerning eye diseases is available
- The equipment in the regional ophthalmologic cabinets is mostly obsolete, lacking the proper maintenance and replacement parts
- The ophthalmologists need training on current practice guidelines for up to date diagnostic and surgical treatment
- No educational programs concerning eye diseases exist for the population
- There is very low utilization of eye services due to essentially out-of-pocket payment system
- The cases of the diseases being observed during the last few years become more complicated due to late diagnosis of diseases. Patients present late stages of the disease to the ophthalmologist, which often have more complications and poorer prognosis.

Recommendations

- To investigate the main causes of blindness in Armenia in order to set the priorities for the prevention of blindness program
- To organize continuing medical education programs for the ophthalmologists in the remote regions of Armenia, providing current practice guidelines and clinical updates
- To improve the care for eye disease in the under-served and poor areas of Armenia by improving regional eye care programs outside of Yerevan
- To develop a detailed plan of the implementation for the regional prevention of blindness program
- To establish a communication and transportation network to assist regional patients in gaining access to the best surgical treatment in Armenia
- To provide the educational programs for the general population concerning eye diseases
- To monitor the program on a regular monthly basis; and to evaluate the program on a yearly basis to assess its effectiveness and to identify ways in which it can be improved.

Background

Backgraund

Visual impairment is one of the most serious misfortunes that can befall a person. Blindness, according to the International Classification of Diseases (10^{th} edition) [1], is clinically defined as visual acuity of less than 3/60 (0.05) or corresponding visual field loss in the better eye with best possible correction. Low Vision corresponds to visual acuity of less than 6/18 (0.03), but equal or better than 3/60 (0.05) in the better eye with best possible correction. Blindness affects people of all ages, from premature infants and newborns to the elderly. Except for their blindness, these people live to a normal old age, because vision problems generally are not life threatening. However, quality of life and productivity are both significant issues.

Prevalence of blindness varies for different countries and ages, ranging from 0.3% in the developed countries to 1.4% in Africa. [2]. It is generally estimated that in the United States 69 persons per 1000 suffer a visual loss that cannot be corrected by glasses or other similar means [3] Thirteen percent of those over age 65 have some form of visual impairment. [4]

WHO statistics presents that burden of blindness affects an estimated 40-45 million adults and 1.5 million blind children in the world. Each year, an estimated half a million children go blind, of whom up to 60% die in childhood. However, about 90% of the vision problems in the world are treatable or preventable. [5]

Blindness and Visual Impairment in Armenia

In Armenia, like many ex-Soviet Republics, after the destruction of health care system, there are no precise statistical data on blindness and visual impairment. No statistics exists concerning economical burden of blindness. Any attempt to arrive at the total direct and indirect costs of blindness to the Armenian economy will be guesswork.

In 1999, blindness prevention in Armenia received a new impetus. The people of Armenia have been the fortunate recipients of assistance from benefactor Garo Meghrigian. Mr.Meghrigian has donated a generous sum of money for the implementation of blindness prevention program throughout Armenia.

In order to start this project, key informant interviews were conducted with some of the top ophthalmologists of Armenia in order to gain valuable insights into the future structure of the above-mentioned program. It has been concluded that specialized ophthalmology is one of the most developed branches of medicine in Armenia.

Ophthalmology services are mostly concentrated in Yerevan, the capital of Armenia. The patients from remote regions of Armenia are referred to Yerevan. However, as a result of the lack of health insurance and due to the presence of the co-payment system the level of utilization of ophthalmologic services is very low even in Yerevan. According to the key-informant interviews one of the main goals for the practical ophthalmology in Armenia is to bring ophthalmologic services to isolated regions to insure full coverage. Most of the villages within each of the ten regions are short of not only specialized ophthalmologic services but primary care services as well. Taking into account of these issues a survey of regional ophthalmologic services has been conducted.

Goals/Objectives

The main *goal* of this survey is to assess the regional ophthalmologic services.

The main *objectives* are as follows:

- To observe the equipment, working conditions and the main procedures performed in the regional ophthalmologic units.
- To determine the level of training of the regional ophthalmologists in current practice guidelines for up to date diagnostic and surgical treatment.
- To observe the real epidemiological situation in the regions concerning eye disease.
- To determine the goals of Garo Meghrigian Blindness Prevention Institute in the regions according to the regional ophthalmologists.

Methods

Qualitative interviewing techniques are capable of providing valuable insight into complexity, range of human attitudes, values and behaviors. In addition, it provides an opportunity to collect substantive and detailed information that otherwise is hard to obtain. That is why the qualitative research technique such as semi-structured in-depth interviews was used for this study.

Field site

The survey has been conducted within ten provinces of Armenia.
Each province has a central town where an ophthalmologist has an office established at the main policlinic. Besides, there are 27 towns in the regions of the provinces that are providing policlinic eye services for population. The total number of ophthalmologists in the regions is 62.

Sampling and Recruitment Procedure

It was planned to interview 37 ophthalmologists from the towns where the ophthalmologic services are available (one from each town). This sample could

fully represent the situation in the country, as there are significant differences among ophthalmologic units in the same province. Data is generalizable for the whole country as the survey sample represents over 50% of all regional ophthalmologists in Armenia. Preliminary contacts with potential participants were made through telephone calls in September and October 1999. The main inclusion criteria for study participants were 1) presently practiced as a regional ophthalmologist; 2) willingness to participate in the interview. The effective sample size obtained was 33 ophthalmologists.

Data collection instruments
The questionnaire was developed to conduct in-depth interviews with participants. The interview guide included general domains of the topics to be covered during the interview. Questions related to the current situation in the regions regarding structure of ophthalmologic services; the main problems currently faced by ophthalmologic services in the region; the epidemiological situation of eye diseases in the region; the main ophthalmologic procedures, that are being performed in the regional ophthalmologic service unit; the equipment in the cabinet or department; access to knowledge in up-to-date diagnostic and treatment procedures; utilization of ophthalmologic services; the main causes of blindness in the regions; the proposed goals for the AUA Garo Meghrigian Eye Institute in the regions.

Wording and sequence of key questions and probes to be included in the field guide were pretested in two regions: Echmiadzin and Abovyan. Following pretest interviews, an initial guide was revised, some vague questions were clarified, and more detailed probes were included.

Face to face interviews were conducted in the clinics of the respondents. The interview lasted thirty minutes. All interviews were tape-recorded. Detailed interview reports were translated to English.

Data analysis
Expanded field notes of in-depth interviews were transcribed into word-processing format and were imported to the ATLAS/ti software package for analysis of qualitative data. Initially preliminary analysis was made to look for general themes that come up throughout the data collected. Then, based on these preliminary themes a more detailed coding system was applied to identify main domains of questions to be answered by the research.

Results

This section presents the results from in-depth interviews with regional ophthalmologists. A total of 33 in-depth interviews were conducted among regional ophthalmologists. Direct quotes from the interviews are included to reflect specificity of answers.

The results are presented in accordance to the main domain of the research questions:

1) Current situation in the region regarding the structure of ophthalmologic services;
2) The main problems, currently faced by the regional ophthalmologic services;
3) Epidemiology of eye diseases in the region;
4) Main ophthalmologic procedures, performed in regional ophthalmologic service unit;
5) The equipment of the cabinet or the department;
6) Access to knowledge in up-to-date diagnostic and treatment procedures;
7) Utilization of ophthalmologic services;
8) The main causes of blindness in the regions according to the experience of interviewee;
9) The projected goals of AUA Garo Meghrigian Eye Institute.

Current situation in the regions regarding the structure of ophthalmologic services

During the survey of regional ophthalmologic services 34 towns were visited and 33 ophthalmologists have been interviewed. In the all visited towns of the ten provinces policlinic based ophthalmologic units exist. Eye departments are present in four towns: Echmiadzin, Kapan, Vanadzor and Gumri. In the Echmiadzin eye department, although they do not receive any help from the Ministry of Health, the situation with equipment, drugs, hygiene was the best among others being observed. They “provide all possible help for the population and people do not complain…”(Echmiadzin).

In each eye department there are two working ophthalmologists and a few nurses. Some of the small towns such as Aparan, Maralic, Yeghegnadzor, Amasia, Sisian there are only part-time ophthalmologists. “I visit the policlinic once a week. This region has not had an ophthalmologist for 10 years.”(Aparan)

Ophthalmologist in each town is serving the population of the town and closest villages.

In Ashotsk, which is close to Georgian border, there is a different situation: "We are serving illegally the Armenian population from Georgia close to boarder. The medical services in this part of Georgia are in a very low level. These people are not the citizens of Armenia, but they are Armenians and we have no right to refuse anyone to get treatment. The main population, that we serve, is Georgian Armenians."

The main problems currently faced by regional ophthalmologic services

All respondents mentioned that the situation with ophthalmologic services in regions worsened. "In general the situation with ophthalmologic services becomes worse. It is the result of the economical crises in Armenia. The level of population's life decreased, and that impacted all medical services including ophthalmologic." (Meghri)

As the first and foremost problem for all regions, respondents mentioned financial problems of the population. An out-of-pocket payment system for medical services in Armenia has been established. With no insurance system in Armenia and mass-unemployment of the population, the medical services, including ophthalmologic examinations became unaffordable for the population. "The peasants don't want to treat their diseases. They prefer to buy bread for their children…"(Hrazdan) "Even visiting me, in most cases the patients have no money to go and buy drugs or eye glasses."(Stepanavan)

The transportation is also a big problem for people, especially for the village population. As patients cannot afford transportation and treatment in Yerevan's eye clinics, some of the ophthalmologists emphasized the necessity of organizing eye departments in the central towns of each province. There are well-trained ophthalmologists from regions, that would like to work in their regions, but they have to work at the Yerevan eye clinics. "We need to organize surgical services

here. In our province there are many patients with cataract, without vision, who cannot go to Yerevan… There are also patients with pterygion II-IV stage whom we cannot operate."(Martuni)

"Even for small surgical treatment the patients have to go to Yerevan…. We have persons from our regions, which are educated in St.-Petersburg and in Yerevan. They want to work here and help our population. But no ophthalmologic department exist in our region."(Sevan)

From the respondent's point of view, the equipment is also considered to be one of the main problems, which is further discussed.

Many of the respondents emphasize the importance of the links between central and regional ophthalmologic services. During the Soviet period, there were very close scientific connections between different USSR Republics. The ophthalmologists both from regions and from central eye clinics have a chance to go for training in different Republics. "The traditional scientific links (conferences, meetings, training) between former Soviet Union countries were destroyed. Now even in Armenia, the links between central eye clinics and regional ophthalmologic service units are gone. In the past, monthly meetings for ophthalmologists made it possible to get information about ophthalmology recognized and published. Now the system has vanished."(Echmiadzin)

Many ophthalmologists mentioned that the network of regional ophthalmologic services is destroyed. As a result of low financial and geographic access to the regional ophthalmologic services, the link between the chronic patient and the ophthalmologist is impaired. The situation of ophthalmologic services in the rural areas is worse. In the past, regular visits of the groups of different specialists were available to them. "The worst situation is in villages. In the past, I would take all the necessary equipment and visit village schools regularly to examine children. I took them in dispancer list in order to examine regularly and take special care of them. Now we don't do such work."(Goris)

"We can serve only population from the town. In the past, we had groups of physicians that visited the villages and diagnosed patients. That was the way we were able to find the patients in the villages. Now that system doesn't exist."(Kapan)

Eye disease epidemiology
No precise statistical data concerning eye disease are available.

One main concern of the respondents is the increasing incidence of complicated forms of eye diseases. Patients apply to ophthalmologists in the late stages of the diseases. "…People come to ophthalmologists only when 'knife reaches the bone.'…The cases become more complicated due to late visit to the ophthalmologists, due to stress, difficult socio-economic situation."(Armavir) "Chronic stress-factor of our population contributes to the development of small problems into larger ones."(Echmiadzin)

In order for more detailed analysis of this section of research questions the different types of eye disease are examined.

Cataract
The survey shows that cataract is the biggest problem for all our regions, except Zangezur.
The patients cannot afford surgical treatment. Many of them are categorized as disabled and receive government support. This is not economically efficient for the country. Patients choose not to have the operation, leave with the cataract, and after 2 to 5 years they progress to secondary glaucoma. "During a year we have at least 20 to 30 cases of secondary phacomorphic glaucoma only in our province."(Gumri)

It is necessary to emphasize the situation in Aparan. There are many cases with cataract. The majority of population of that region is poor and cannot afford transportation and treatment in Yerevan eye clinics. "We invited the surgeons from Yerevan. We listed the patients who are in need of surgical treatment. It is very painful for me to see those patients, but I cannot help them. The Republican Eye Clinic refused to send specialists here." (Aparan)

In Zangezur the problem with treatment of cataract patients is solved due to help from the abroad colleagues. "…During two visits the group of American ophthalmologists performed 295 cataract operations. The 90% of cataract patients in our region have received surgical treatment."(Kapan)

Glaucoma
The majority of the respondents reported loosing the control of this disease as the result of absence of mass-screening programs. The patients visited the cabinet only in the cases of vision lost or attack. "We haven't done the mass-screening for glaucoma during the last ten years. The patients visit us only in the late stages of the disease." (Gavar)

Ophthalmologist from Stepanavan mentioned the other important point: "Patients with glaucoma are becoming younger."

Respondents frequently refer to glaucoma cabinets that were functioning during the Soviet period. Examination of eye pressure of all patients entering the policlinic ages 40 years or older was required. "Due to these rules we could reveal the glaucoma at the early stages of the disease."(Ijevan)

Vascular eye diseases

The majority of the respondents consider vascular eye disease, such as thrombosis and diabetic retinopathy of big importance. All of them mentioned an increase in the number of new patients with those pathologies. Some of the regional ophthalmologists also mentioned that the vascular eye diseases during the last years are affecting younger people. The possible explanation for that is stress.
"The incidence of vascular eye diseases, specially diabetic and hypertension retinopathy is very high in our region. I think that it is due to the stress-factor."(Ashtarak)
"The vascular pathologies increased, and they become younger…"(Martuni)

Myopia

Myopia is a very painful problem for people within the regions. The number of children with myopia increased during the last years. "…It may be connected with poor nutrition and the years of energy crises."(Ararat)

The respondent from Aparan mentioned the fact that "…after the earthquake in 1988 the number of people with refraction pathologies increased, and for those who have already had any problems, they become worse. Research work concerning this phenomenon has been conducted."

The problem is increasing due to the psychology of the population. It is presumed to be ashamed to wear glasses. The girls may have problems with marriage. The same problem is for boys. "It is very important to organize the educational programs for population concerning this problem. Very often parents don't take them seriously."(Ashotsk)

Jermuk and Aparan are two regions in Armenia, where myopia is an endemic disease of the population. "…60-70% of our region has myopia"(Aparan)
"In Jermuk we have found many patients with refraction pathologies at the age of military service (18 years old). They have to be obligatory examined. Nearly everyone at that age in Jermuk has refraction pathology. They have no ophthalmologist in their town. This fact makes us think."(Vaik)

Vernal conjunctivitis

The overwhelming majority of respondents mentioned vernal conjunctivitis as an endemic disease for the most of Armenian regions. The high level under the sea and high sun activity explains this. "I can explain the high rate of vernal

conjunctivitis mortality in some our villages by the high level of ultraviolet radiation. I would like to mention that in the Soviet period in these villages there was very high prevalence of trachoma"(Hrazdan)

This disease affects mostly boys. The treatment is primarily with Dexamethazone. The results are not perfect. There are a lot of complicated cases of this disease during the last years. It may be due to "lack of nutrition and unhealthy diet."(Hrazdan)

The respondent from Gavar noted during her working experience "such patients are often affected by myopia and cataract during adolescence."

The main ophthalmologic procedures

Respondents mentioned as the main ophthalmologic procedures during their practice are parabulbar injections and removing small foreign matter from the eye surface, etc. The majority of the regional ophthalmologists stressed the fact that they are allowed to perform any even small surgeries. "…The chiefs from Yerevan don't allow us to perform any surgical treatment in the regions."(Aparan) "…The Center does not allow us to do any surgical procedures." (Armavir) Only in Goris, Hrazdan and Artashat the ophthalmologists are performing minor surgeries, like pterygion, chalazion.

According to respondents in the regional ophthalmologic departments of Kapan and Echmiadzin, all types of microsurgery except glaucoma are performed. Vanadzor and Gumri Eye departments are performing all types of surgeries. "We provide all necessary microsurgical ophthalmologic treatment of cataract, glaucoma, trauma and other eye diseases."(Gumri)

Equipment of cabinet/department

In the overwhelming majority of regional ophthalmologic services units, the set of equipment that consists from a slit lamp, an ophthalmoscope (mostly portable) and a perimeter (mostly portable) are available.

During the time of the survey, the equipment being observed was very old. The one exception is the hospital in Ashotsk that is under the supervision of the Catholic Church. Most of the respondents mentioned the fact, that they cannot

find bulbs to repair their ophthalmoscopes and slit lamps. "We do not have up-to-date equipment in our cabinets. Whatever is available is over 30 years old. The ophthalmologist without equipment is blind."(Artashat) "Our ophthalmoscope is not working well. We repair it once a week. We have also a slit lamp which is about 35-40 years old."(Vardenis)

They are very much in need for small equipment such as sciascope and gonioscope. Even in the best-equipped ophthalmologic cabinet in Ashotsk they face the same problems.

In the regional ophthalmologic departments, the situation is the best in Echmiadzin. The equipment is new and in the good working condition. In Kapan they have to use loupe for cataract surgery, as they haven't microscope.

Access to knowledge in up-to-date diagnosis and treatment procedures
As it could be seen from the survey data, the average time from the last ophthalmologic courses is approximately 5 years. Most of the respondents have been at the eye clinic No. 8 for different ophthalmologic courses. The majority of interviewed ophthalmologists have mentioned that they need to go for new courses, as they have no other sources to get information on the up-to-date diagnosis and treatment procedures.

"…I am alone here. I have nobody to consult with…In the regions we need to refresh our knowledge in ophthalmology from time-to-time. These courses are the only source of news in ophthalmology." (Stepanavan)

The new literature in ophthalmology is not available for most of the respondents. Respondents mentioned poor postal mail services; very high prices for the ophthalmologic magazines and no computer access as main reasons for not receiving updated information in the field.

Utilization of ophthalmologic service
According to the opinion of all respondents, now there is a low level of utilization of ophthalmologic services. The number of patients attending ophthalmologic cabinet has been decreasing considerably. Most of the respondents mentioned that it is due to difficult socio-economical situation of population. After the establishment of the out-of-pocket payment system for medical services, people cannot afford the treatment (drugs are very expensive), visits to the ophthalmologist and even transportation from village to town.

The proposed goals for Garo Meghrigian Blindness Prevention Program in the regions

All respondents welcomed the Program. They mentioned that it is very important to take into account their opinion in order to make the program effective and more efficient throughout the regions.

"I am very glad that we will have such a program. I think that for a good organization it will be necessary to take into account our opinion. It is very good that you came here and organized this survey…"(Idjevan).

Helping people to have more access to ophthalmologic services in regions is "like building a church for the people" (Aparan).

Most of the respondents mentioned that the first step of the program should be "the improvement of the level of ophthalmologic services in the policlinics; to help with the equipment and the necessary drugs. The next step should be the provision of funding people who are in need to cover their treatment expenses. Concerning the surgical services for villages: it will not be proper to say that we can bring it to villages, because the ophthalmologic services are in need for special equipment. It will be better to activate the medical personnel from villages to gather all patients with any eye problems and organize their visits to the specialized ophthalmologic services. This will help for early diagnosis and proper treatment of eye diseases, such as glaucoma."(Gumri). The other respondent from Talin mentioned as the main components to be included are: "To organize prophylactic examinations of eye pressure of the patients who entered the polyclinic at the age more than 40 years old. This will help for early diagnosis of glaucoma."

The specialist from Armavir suggested organizing the special groups to visit the remote villages of Armenia.

A lot of attention was given to the problem of mass screening among children in kindergartens and schools. "We shall give a chance to our young generation to have good eye health."(Echmiadzin)

Conclusions/Recommendations

The main conclusions that have been derived from the results of survey are as follows:

- No precise statistical data concerning eye diseases are available;
- The equipment in the regional ophthalmologic cabinets is mostly obsolete, lacking the proper maintenance and replacement details;
- The ophthalmologists need training on current practice guidelines for up to date diagnostic and surgical treatment;
- No educational programs for population concerning eye diseases exist;
- Very low utilization of eye services due to patient's inability to pay;
- The cases of the diseases being observed during the last few years become more complicated due to late diagnosis of the diseases. Patients present to the ophthalmologist with late stages of the disease have more complications and poorer prognosis.

As a result of the previous work involving the key informant interviews and the in-depth interviews with the regional ophthalmologists, operations objectives have been developed for the program:

- To develop a building facility in Yerevan to house the activities of the AUA Garo Meghrigian Eye Institute. Such a facility will provide an adequate space for the management of the prevention of blindness services, as well as, an area for the training of future professionals;
- To investigate the main causes of blindness in Armenia in order to set the priorities for the prevention of blindness program;
- To organize epidemiological surveys to create a map on the prevalence of the eye diseases in Armenia;
- To organize continuing medical education programs for the ophthalmologists in the remote regions of Armenia, providing current practice guidelines and clinical updates;
- To organize the library for ophthalmologists, using all the new available methods in gaining knowledge;
- To develop a detailed plan of the implementation for the regional prevention of blindness program;
- To improve the care for eye disease in the under-served and poor areas of Armenia by improving regional eye care programs outside of Yerevan;

- To organize screening programs for the rural population;
- To establish a communication and transportation network to assist regional patients in gaining access to the best surgical treatment in Armenia;

- To provide the educational programs for the general population concerning eye diseases;
- To monitor the program on a regular monthly basis; and to evaluate the program on a yearly basis to assess its effectiveness and to identify ways in which it can be improved.

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APPENDIX I

Name of Key Informant:_____
Position:_____
Location:_____
Data:_____

Key Informant Interview
with Armenian Ophthalmologists

Introduction: Today interview is going to be the continuation of our previous meeting. We want to increase our knowledge of problems with regards to Armenian ophthalmology, in particular information to assist in the development of the Garo Meghrigian Prevention of Blindness Program. We would like to ask you some questions concerning ophthalmologic services in Armenia. The interview will take approximately half an hour. Your input is extremely important to us.
Thank you very much in advance.
If you do not mind, let's start the interview.

Topic guide for the key informant interview:

1. Would you please describe, in general, the current situation in Armenia regarding ophthalmology?

2. What are the main problems that ophthalmologic services face now?

3. Please, describe, in general, the situation regarding the epidemiology of eye diseases in Armenia?
(in particular, what are the main risk factors contributing to the major eye problems, morbidity of major eye diseases, etc.)

4. What types of research or programs have been conducted in your clinic?

Would you please answer me some questions about regional ophthalmologic service.
5. Do you serve patients from regions? What information can you give concerning ophthalmologic services in the other regions of Armenia?(What are their services like?)

6. What are the main problems for ophthalmologic service in the other regions of Armenia?(What types of eye diseases are common? What risk factors are associated with them?)

Now I would like to ask you some questions regarding to diseases that cause blindness.

7. What are the main causes of blindness in Armenia according to your experience? What groups are more likely to be effected by blindness (age groups, gender, regions, social groups, etc.)?

8. What is your vision of the Garo Meghrigian Prevention of Blindness Program?(If you have the opportunity to design this Program, what components would you include?)

9. What should be the main priorities of this program in your opinion?

10. Please, describe the components that could make this program more effective?

11. In what ways can you see yourself collaborating with us for this program to be effective ?

Thank you very much for your collaboration.

APPENDIX II

Name of interviewee:_____
Position:_____
Location:_____
Data:_____

INTERVIEW
WITH OPHTHALMOLOGISTS FROM THE REGIONS OF ARMENIA

Introduction: A great fortune has been presented to the people of Armenia through the hands of benefactor Garo Meghrigian. Mr. Meghrigian has donated a generous sum of money for implementation of the Blindness Prevention Program throughout Armenia.
We want to increase our knowledge of problems with regards to Armenian ophthalmology, in particular information to assist in the development of the Garo Meghrigian Prevention of Blindness Program. We would like to ask you some questions concerning ophthalmologic services in Armenia. The interview will take approximately half an hour. Your input is extremely important to us.
Thank you very much in advance.
If you do not mind, let's start the interview.

Topic guide for the interview:

1. Would you please describe, in general, the current situation in your region regarding ophthalmology?

2. What are the main problems that ophthalmologic services face now in your region?

3. Please, describe, in general, the situation regarding the epidemiology of eye diseases in your region?
(in particular, what are the main risk factors contributing to the major eye problems, morbidity of major eye diseases, etc.)
Have you any data? If yes, please mention.

Now I would like to talk about your personal practice.

4. What are the main ophthalmologic procedures that are being performed in your cabinet/department? Please, specify:

5. Do you perform any surgeries in your cabinet/department? If yes, please specify, what types:

6. What type of equipment do you have in your cabinet/department (please, mention also the producer of the equipment and the year of manufacture)? Is it in a good condition?

7. When was the last time you took the courses for ophthalmologists (at the National Institute of Health or any Eye Institute)?

_____month_____year

Name of the course:_____
Where was the course organized?_____

8. Do you subscribe to any literature on ophthalmology? If yes, please specify:

9. Have you many patients? Has the amount of patients changed in comparing with the Soviet period? If yes, in what way?

Let's go back to the 3-rd question and make it narrower.

10. What are the most frequent eye diseases in your region now? Did the situation change in comparing with the Soviet period? If yes, how can you explain it?

Now I would like to ask you some questions regarding to diseases that cause blindness.

11. What are the main causes of blindness in your region according to your experience?

12. What groups are more likely to be effected by blindness (age groups, gender, regions, social groups, etc.)?

13. What is your vision of the Garo Meghrigian Prevention of Blindness Program? (If you have the opportunity to design this Program, what components would you include?)

14. What should be the main priorities of this program for the regions?

15. Please, describe the components that could make this program more effective in the regions?

16. In what ways can you see yourself collaborating with us for this program to be effective?

Thank you very much for your collaboration.